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“Popper and the Rationality Principle.”

Un document produit en version numérique par Jean-Marie Tremblay, bénévole,
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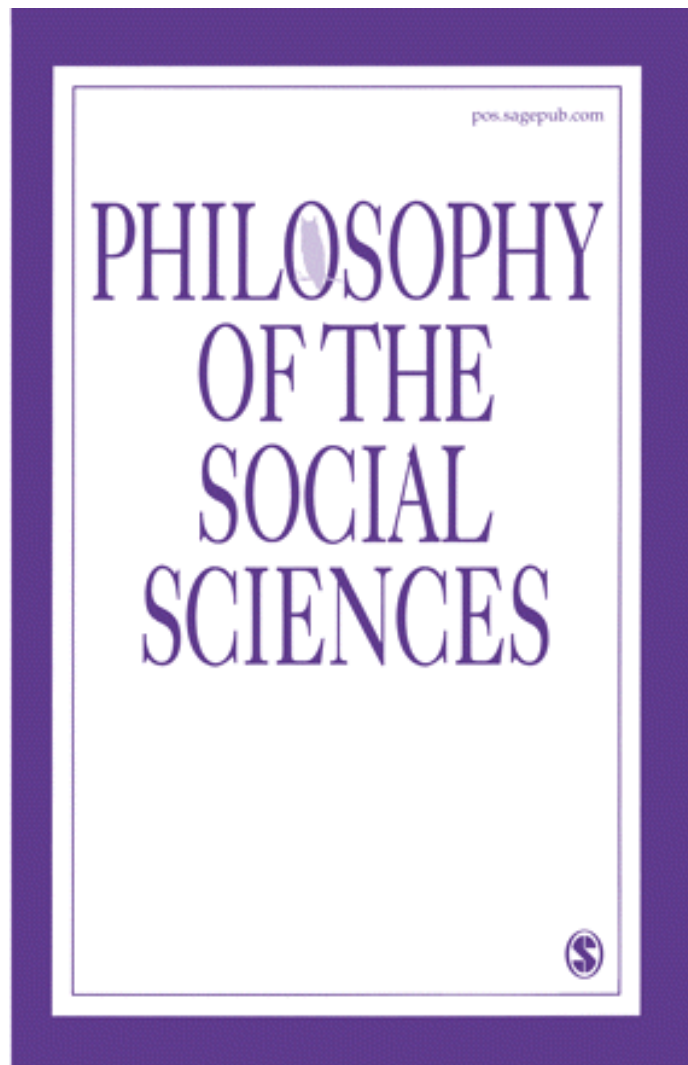
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“Popper and the Rationality Principle.” *

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Popper's short essay about the rationality principle has been the target of many criticisms which have raised serious doubts about its consistency. How could the well-known promoter of falsificationism suggest that we not reject a principle that he himself describes as false? Nonetheless, the essay can be read in a way that makes it appear much more consistent. Better sense can be made of Popper's own examples (the flustered driver, the pedestrian, etc.), by taking seriously his view that the rationality principle might be "approximately true" and falsified only in very rare cases, while also giving proper attention to his four rather elliptical arguments.

Very few texts in contemporary methodology of science are as disconcerting as the very short essay that Karl Popper devoted to the rationality principle.¹ In that essay, Popper attempts to identify the status of this principle, fundamental to all social sciences. But, oddly enough, this philosopher of science, whose name almost stands for

* I would like to thank Mary Baker, Jack Birner, Wade Hands, Gérald Lafleur, and Bruce Toombs for their useful comments and William Milnes who translated from the French an earlier unpublished version of this essay. I would particularly like to thank Robert Nadeau for offering the objections that led me to write this totally new version, in which I challenge his own interpretation of the same text in what seems to me a much more satisfactory way. Financial support from the SSHRC and the Fonds FCAR has been also very useful.

¹ Karl Popper, "The Rationality Principle," 1967 essay in Miller 1985; unless otherwise specified, all references are to this text.

falsificationism, admits in this text that the rationality principle is false but nevertheless recommends that it not be treated as falsified. Many have found Popper's position to be blatantly contradictory or, at the very least, extremely ambiguous. Is it conceivable that Popper, who makes the falsifiability rule the very core of his methodology, might calmly put it aside when dealing with the social sciences? Without necessarily endorsing Popper's position, I would like to suggest an interpretation of "The Rationality Principle" that eliminates its contradictions. I shall maintain that this text can surely be criticized for [469] the poor psychological analysis on which it relies at some crucial points but that it defends a much more plausible and coherent thesis than most commentators admit.

There is no doubt that if Popper insists so strongly on according a kind of immunity to a rationality principle that he nonetheless recognizes to be false, it is because he considers this principle to be necessary for his situational logic, which, as he emphasizes, is of decisive importance for the social sciences. It is true that, like von Mises, Popper could have made an appeal to a principle stripped of all empirical content. Such a principle might state, for example, that individuals act in such a way as to improve their situations, *seen from their own perspectives*, by proceeding in a way that *they consider* appropriate given the circumstances in which they find themselves. But then he would expose himself to the accusation of apriorism, an accusation that, as a good empiricist, he must be especially keen to avoid. Thus it is not surprising that Popper so strongly insists on keeping his distance from a position such as that of von Mises and that he explicitly denounces those who claim that the rationality principle "is a priori valid, or a priori true" (p. 360).

But, to begin, let us see how he formulates this rationality principle. The question of its formulation is important as Popper speaks of his "own version" of the principle, which he sometimes prefers to call the "principle of acting adequately to the situation" (p. 361). He proposes the following formulation: "agents always act in a manner appropriate to the situation in which they find themselves" (p. 361), and does not hesitate to affirm that such a principle is manifestly false. It would be misleading, therefore, to associate his position with von Mises' apriorism, as Latsis persisted in doing in his 1976 article (Latsis 1976, 6). Popper was clearly annoyed by this kind of

association and he does not miss an opportunity to warn the reader against any possible confusion on this point: "Thus it cannot be said that I treat it as a priori valid" (p. 362). In the same spirit, he denounces in advance those who might be tempted to describe his principle as tautologous: "a tautology is obviously true, whilst we make use of the rationality principle merely as a good approximation to the truth, recognizing that it is not true, but false" (p. 364). In short, from the very beginning, Popper considers it important to clearly distinguish his position from any form of apriorism.

How, then, can Popper recommend not rejecting a principle that he recognizes as false? It seems clear that in order to make sense of Popper's rather astonishing recommendation it is necessary to take [470] him at his word when he says, repeatedly, that the rationality principle remains in his eyes a "good approximation to the truth." After all, it is only a kind of logical purism that leads Popper to describe the rationality principle as false; this should not allow us to exaggerate the implications of such a verdict: "a principle that is not universally true is false. Thus the rationality principle is false" (p. 361). In contrast with those who denounce the principle of rationality as a very poor picture of human behavior, Popper should be taken very seriously when he maintains that this principle is a "good approximation"; all that Popper means when he says that the principle is false is that it is *occasionally* contradicted. Now in what sorts of cases is it contradicted? Popper maintains that it is contradicted, for example, in the case of a "flustered driver" who *manifestly does not act in a manner appropriate to the situation in which he finds himself*. Clearly, if Popper maintains that the rationality principle is still a "good approximation," it is because he considers that such cases are not very representative.

However, to the claim that, *on the whole*, individuals adapt themselves in an adequate manner to their situation, anyone with the slightest knowledge of human psychology will respond that stupidity, madness, and neurosis are not rare among human beings. Popper is well aware of this. However, he believes that he can find support from Churchill and above all from Freud for showing that, in such cases, a seemingly inappropriate response to a situation remains rational as long as, from the perspective of the agents, it is an appropriate response to the situation "*as they see it*" (p. 363). Does this mean, as

Robert Nadeau (1993) claims, that Popper is making, in a surprisingly inconsistent way, an appeal to a completely new principle, to a principle that is different from the one he describes as false and that is a priori and just as empty as the one put forward by von Mises? One could think so, for bringing into consideration the way in which the agent *perceives* the situation seems to transform an objective principle into a purely subjective one. Such a principle would be a priori valid as even the most irrational act -- and this is precisely the way in which von Mises sees things -- can be considered an appropriate response to a need perceived by an agent (even if this need is merely that of acting in a purely whimsical manner). However, I maintain that (1) Popper is so manifestly opposed to any a priori valid principle that he would never have accepted such a subjective interpretation of the rationality principle and (2) as, according to Nadeau himself, Popper clearly defends an objective interpretation of the same principle at some other points in this short text, it is difficult to admit that such a keen logician [471] would contradict himself so blatantly or, at least, would be so careless about the relations between these two interpretations. But as Popper clearly refers to the agent's *situation* when he assesses the agent's rationality, I must propose an alternative interpretation of these "subjective" considerations.

According to Popper, Freud shows that the neurotic, even when he has literally created his own problem, responds in a way that is completely appropriate to the situation *as he himself sees it*. Popper suggests that in a similar way a pedestrian might throw himself into the way of an oncoming cyclist to avoid being hit by a car. There is no doubt that if the pedestrian had a better view, he could avoid both accidents; however, taking into consideration what he actually sees, his response to the situation is completely appropriate. It is probably no coincidence that Popper illustrates his interpretation of Freud by way of an example borrowed from the world of traffic circulation; indeed, we have already seen that it is in the world of traffic circulation that he thinks he can find an example of an inappropriate response to a situation. Contrary to the pedestrian who unknowingly throws himself in the way of an oncoming cyclist, the flustered driver behaves in a manner *that is inappropriate* to the situation *even as he himself sees it*. It seems clear that Popper takes the verb "to see" in its literal sense, or in any case, in its *strictly cognitive sense*. The driver

sees perfectly well that he cannot park his car in such a small space, but he is so exasperated that he makes desperate maneuvers to attempt it anyway and afterwards has to struggle to drive out of the cramped space into which he needlessly squeezed the car. In Popper's view, this is not at all a case of an appropriate response to a situation, and consequently it is completely different from the case of the pedestrian who is incapable of seeing anything other than the car that threatens to hit him.

There is no doubt that Popper's rather hasty psychological analysis could be discussed at length and that it would be possible to examine the flustered driver's perception of his situation to try to show that his behavior is actually appropriate to the situation. Perhaps, for example, he simply needs to blow off some steam. But Popper leaves no room for such a refinement of his psychological analysis. In his view, what the neurotic, the driver, and the pedestrian "see" is strictly nothing other than their particular situation. Popper does not seem ready to push the perceptual subjectivism any further and to include within what he calls "the situation" the way in which the agent could assess his own reaction. (For example, the agent could explain his [472] reaction in the following way: "It does me good to show how absurd it is to try to park in a city which is so badly administered !") Popper readily concedes that the driver might not be aware of all of the givens of the situation. Nevertheless, because the driver lets himself go for a few minutes and, in contrast with the pedestrian hit by the bicycle, acts in a way that is not appropriate to such a partially known situation, Popper concludes that he acts in an irrational manner and that his behavior falsifies the universal validity that we might be tempted to attribute to the rationality principle. It seems, however, that the borderline between these two types of situation (between situations like that of the flustered driver and situations like that of the pedestrian) is much harder to determine than Popper supposes, and that in trying to judge the degree of rationality of different forms of behavior in an objective manner, we encounter insurmountable difficulties. It is unlikely that Popper is completely unaware of these difficulties. However, as there is no evidence that he has ever shown a great deal of subtlety when dealing with psychological material, and because he was usually very rigorous when dealing with logical problems, questioning his psychological analysis seems much more

satisfactory than maintaining that his position is blatantly inconsistent and that he has repeatedly contradicted himself during the space of a few pages. This is particularly true given that he never repudiated these few pages and that he allowed them to be republished in English many years after their publication in French, which had provoked so many charges of contradiction.

What seems, however, to seriously complicate the present interpretation of these pages is the fact that Popper unflinchingly maintains that the rationality principle "has little or nothing to do with the empirical or psychological assertion that man, always, or in the main, or in most cases, acts rationally" (p. 359). How can a philosopher who claims that it is only approximately true that human beings respond in an appropriate manner to their situation as they themselves see it (meaning, no doubt, that this is true in the large majority of cases) insist on denying this principle's empirical or psychological signification? Similarly, one may ask why he does not hesitate to say that this principle is "almost empty" (p. 359). To clarify the first of these two questions, it is useful to refer to the conclusion of the text, where he takes up the same idea in very similar terms: "The 'rationality principle'... has nothing to do with the assumption that men are rational in this sense-that they always adopt a rational attitude" (p. 365). Since this time Popper takes the trouble to specify "rational [473] in this sense," it is legitimate to ask which sense is in question. Clearly, the sense in question is the one that Popper attributes to the notion of rationality in the preceding paragraph: "Rationality as a personal attitude is the attitude of readiness to correct one's beliefs. In its intellectually most highly developed form, it is the readiness to discuss one's beliefs critically, and to correct them in the light of critical discussions with other people" (p. 365). Popper here refers to a conception of rationality that he finds very appealing and that is closely connected to his notion of a "critical rationalism." Thus it is clear and Popper does not seem to say anything else-that the principle stating that individuals act in a manner appropriate to their situation "has nothing to do" with this tendency to correct oneself by criticism, which, for Popper, constitutes authentic rationality. Popper immediately emphasizes that, far from being as rich as this, the principle in question is only a "minimum principle": "it assumes no more than the adequacy of our actions to our problem situations as we

see them" (p. 365). No doubt, it is only in this sense that he considers this principle to be "almost empty." This principle is not completely empty, but its content is minimal; it only states that individuals respond in an appropriate manner to the situation as they see it. Since for Popper, it is not always the case that individuals respond in an appropriate manner to their situation, strictly speaking, such a principle is false. However, as in his view individuals *generally* do act in this way, he maintains that this principle is a "good approximation" of the truth insofar as it states nothing more than this bare minimum, which means therefore that it says nothing of the specifically "critical" dimensions of rationality.

To the extent that it is given a universal formulation, this minimal principle is nonetheless sufficient for "animating" a model of the type constructed in situational logic. Such a model needs to be "animated" by a general principle that allows us to conclude from a given situation to an action of a specific type. According to Popper, the tendency of agents to respond in an appropriate way to a perceived situation is general enough for the principle that universalizes this tendency, even if it is occasionally contradicted, to play the essential role in situational logic and in the social sciences.

If we accept this interpretation, Popper's thesis is definitely not susceptible to the charge of apriorism, but the question of why he does not reject a principle that he concedes to be false still remains. At this point, one may be tempted to think that to avoid rejecting this principle without being accused of apriorism, Popper has no choice but to [474] endorse instrumentalism, an endorsement that would be particularly embarrassing for the author of *Conjectures and Refutations*. Given the ambiguity of such a situation, it is indisputable that he contents himself with a much too summary vindication of his position. This vindication, which is contained in a paragraph of about fifteen lines (p. 362), is divided into four arguments, none of which is really developed. All four of the arguments are designed to show that, faced with the failure of a test, it is better to lay the blame on the other elements of the model used rather than on the rationality principle itself. Let us examine each of these arguments in turn.

Popper develops his first argument, which he considers his main argument, as follows: above all, a test aims to inform us of something we do not already know; but what would result from a strategy that

questioned the rationality principle itself? Nothing very interesting as we already know that this principle is not, strictly speaking, true. Showing that occasionally there are cases of inappropriate actions does not advance us very far, for it does not in any way improve our understanding of social reality. In contrast, revising the other elements of the model in such a way that this model is made better able to pass the tests to which it is submitted, may reveal unknown aspects of this social reality. Since, for Popper, the essential aim is to increase our understanding of reality, such a procedure is deemed preferable.

One must admit that to a certain extent, this "false" (or not strictly true) principle takes on an instrumental function. Even so, it would be wrong to see Popper as an instrumentalist. Here, the instrument is used to further our understanding of social phenomena, instead of being reserved strictly for the development of successful predictions. It is a matter of deciding which cognitive level (that of the minimal principle or that of the other elements of the model) is the most appropriate field for the progress of knowledge and not of questioning the primacy of this cognitive ideal. This is the reason why, against the instrumentalists, Popper insists that the rationality principle is approximately *true*.

Far from maintaining that it is not appropriate to apply the categories of truth and falsity to the rationality principle, Popper goes so far as to base his second argument on the fact that this principle is "as a rule sufficiently near to the truth" (p. 362). The rationality principle appears to Popper to be so close to the truth that he considers it very unlikely that a drastic failure of the theory, made manifest by a very conclusive test, could be imputed exclusively to the principle. Even if the principle were a factor contributing to the failure of this test, the [475] main responsibility for such a *drastic* failure would have to be attributed to the whole model. In its way, this argument gives eloquent witness to the distance that separates Popper from instrumentalism. Indeed, it is nothing but the *truth criteria* that lead him to attribute only a small part of the responsibility to the rationality principle because this principle is approximately true. For the same reason, he attributes a much larger part of the responsibility to the other elements of the model as nothing assures us that they are not largely false.

Strictly speaking, such an argument is only valid from a statistical point of view. Indeed, the rationality principle can be said to be "approximately true" only to the extent that it applies to a large number of cases; but when a particular case is considered, Popper could not deny that certain consequences derived from this principle might be *absolutely false*. Suppose that we try to explain the example of the flustered driver using the rationality principle as understood by Popper, that is to say, as a principle that *is empirical and false*. It is clear that, in such a case, the rationality principle *could* be held responsible for the failure of an explanatory theory that was supported by it. In such a case, indeed, there is nothing that prevents the other elements of the model (the description of the driver's perception of the situation, the statement of what it is necessary to do in such circumstances, etc.) from being perfectly true statements. If it is not true that human beings, and in this particular case the driver, always act in a manner appropriate to the situation, it makes no sense to blame the theory's failure on the other elements of the model under the pretext that the rationality principle is "approximately" true. Be that as it may, the essential point is that, for Popper, the decision not to reject a principle that is, strictly speaking, false has nothing to do with a crypto-instrumentalism that would be in contradiction with the basis of his philosophy. It seems much more reasonable to say that Popper readily admits the impossibility of explaining *everything* by using models founded on the rationality principle. For example, the behavior of the flustered driver cannot be explained by such models. However, at the same time, he seems to consider that, to the extent that social phenomena can be explained by such models, *it is* by way of an application of the rationality principle, and thus, in most cases, this principle adequately reflects reality.

Popper's faithfulness to his basic philosophical thesis emerges once again in his third argument: "the attempt to replace the rationality principle by another one seems to lead to complete arbitrariness in our model-building" (p. 362). Clearly, one might account for diverse [476] social phenomena by having recourse to the idea that human beings act in an inappropriate, whimsical, and unpredictable manner. But then a different form of behavior could be arbitrarily invoked for each of the phenomena to be explained. This is why, on the very last page of his text, Popper evokes this third argument again and

congratulates himself on the fact that having recourse to the rationality principle considerably reduces the ravages of such a "capricious" arbitrariness. In recommending that we keep to the rationality principle notwithstanding its falsity, Popper, far from renouncing the philosophical principles that he has advocated throughout his life, merely warns us once again against making appeals to ad hoc hypotheses.

As for the fourth argument, Popper simply recalls that, as almost all possible alternative theories would make use of the rationality principle, it is not easy to incriminate it with tests that necessarily have to do with theories taken as a whole. It is in the spirit of this fourth argument that Popper observes, in an earlier part of his text, that "even if a test decides that a certain model is less adequate than another one, since both operate with the rationality principle, we have no occasion to test this principle" (p. 360). This indispensable, or, rather, irreplaceable, character of the rationality principle leads Popper to observe that even in Churchill's discussion of cases of military ineptitude or in Freud's study of cases of madness and neurosis it is this principle that is invoked as a last resort for accounting for these phenomena.

It is quite possible to be left unconvinced by these four arguments, but it is important to see that they are only designed to justify a *methodological decision*, which is the decision to immunize the rationality principle. Such a decision is clearly of considerable importance, but it is a decision taken in a context in which it is impossible to arrive at indisputable conclusions. It would not make sense to require that this methodological decision be supported by more powerful arguments than those in *The Logic of Scientific Discovery*, which stipulate that, given equally successful hypotheses, a preference must be granted to the ones that are the most easily falsified. In the two cases, we have to do with a methodological postulate that it would be absurd to want to found on empirical arguments.

Be that as it may, a last problem has to be discussed and it might be the most formidable obstacle to the present attempt to find a fully consistent interpretation of Popper's text. If Popper's recommendation about the rationality principle is, as I suggest, the result of this type of methodological decision, how can Popper state, when he is [477]

called to say whether the rationality principle is a "methodological principle" or an "empirical conjecture," "this second case is precisely the one that corresponds to my own view of the status of the rationality principle: I regard the principle of adequacy of action (that is, the rationality principle) as an integral part of every, or nearly every, testable social theory" (p. 361)? Why does he refuse to acknowledge that the rationality principle actually functions as a "methodological principle" and in no way as an "empirical conjecture"? Clearly, it is because, more than anything else, he fears contradicting his empiricist principles. After all, he has fiercely defended these principles for many years, and we have seen that he strongly resisted seeing himself associated with apriorism. But it is also because he thinks that these philosophical questions are not so simple. When explaining his decision to describe the rationality principle as an "empirical conjecture," he takes great care to say that the principle "could become part of the various social theories," namely, "the animating part of every social model" (p. 361). Thus, in Popper's view, to affirm that the rationality principle is an empirical conjecture is equivalent to affirming that it is an integral *part* of an *empirical* theory. This implies that if the principle "along with the rest" of this empirical theory were tested it *might* be eventually rejected. It is in this sense that the principle is empirical, which is why it would be wrong to attribute to it any sort of a priori validity. But as it is only a part of a theory, the question arises as to whether, in the case of negative test results, it is the principle or the rest of the theory that is to be blamed. It is only at this point that Popper finally states that "it is sound methodological policy to decide not to make the rationality principle accountable but the rest of the theory; that is, the model" (p. 362). In short, the status of this principle is such that, from a purely logical or epistemological perspective, it could be rejected and, in a sense, should be rejected because, strictly speaking, it is false. However, from a purely methodological perspective, Popper considers that it is nevertheless sound policy not to reject it.

Here Popper might give the impression that he is playing with words, but perhaps we can gain a better understanding of his position by stressing the fact that it is developed in two stages. In the first stage, he makes clear the status of the rationality principle. Faithful to his empiricism, he maintains that it must be an empirical principle and

that, far from being a priori valid, it should be *strictu sensu* considered false. But as this principle is only one element in an empirical theory, the question arises of which part of the theory must be rejected in case of negative test results: the principle itself, or some other part of the [478] model? Popper responds to this question in the second stage of this process. As no evidence will ever permit deciding between these two alternatives, he is faced with a purely *methodological* decision that seems to him to be as important for the development of the social sciences as the methodological decision concerning falsifiability is for the sciences in general. At this point, even if he absolutely refuses to call into question the empirical status as such of the rationality principle, Popper recommends not rejecting this falsified principle because, according to him, rejecting it would only open the door to arbitrariness in social sciences.

As paradoxical as it appears to be, it seems to me that these two methodological decisions (that of having recourse to the hypotheses that are the most easily falsifiable and that of maintaining a falsified rationality principle) have to do with the same desire to increase the understanding of phenomena. No one would deny that Popper's entire philosophy is profoundly marked by this desire. It is true that Popper never actually compares these two methodological decisions; however, at the very beginning of his article, he gives a glimpse of a kind of kinship making room for differences between intelligibility in the social sciences and intelligibility in the natural sciences. He does this when emphasizing what he describes as "a second kind of problem," which has to do with questions of the type "why?" in contrast with questions of the type "when?" (p. 357). This second kind of problem, Popper explains, is "most easily solved with the help of constructing a model" (p. 357). It is mostly a matter of seeing how things develop in a constructed structure that incorporates the "typical initial conditions" (p. 358) of the situation to be explained. According to Popper, models of this type can be provided by the situational analysis, the essential characteristics of which were already discussed by him in *The Poverty of Historicism*. This technique of modeling seems to Popper to be so essential for the social sciences that he does not hesitate to state that "only in this way can we explain and understand what happens in society: social events" (p. 358). However, the models generated in this way must be "animated" in the way that a

variety of models from physical science are "animated" by Newton's universal laws. Thus, called on to function in many explanatory models in a way that is analogous to the role played by the most universal principles of the physical sciences, the rationality principle would permit, just like those universal principles, the avoidance or arbitrary theories and ad hoc explanations. For Popper, the methodological [479] decision to require falsifiability is equivalent to affirming the superiority of explanations, which, in contrast with ad hoc explanations, find their support in universal laws. Likewise, the methodological decision to save the (falsified) rationality principle is equivalent to affirming the superiority of such non-ad hoc explanations. Whatever the success of this approach, it has always been Popper's view that methodological decisions should be made with the aim of increasing the cognitive content of a science and of keeping this science free of the ad hoc theories that open the door to arbitrariness.

Possibly due to Hayek's influence, Popper was led to conclude that it is almost impossible to understand social phenomena without giving a fundamental role to some formulation of the rationality principle. Because the use of a universal principle, such as the rationality principle, may permit the social sciences to increase our understanding of more and more phenomena, he found it an appropriate methodological decision to save the rationality principle at all costs. Interpreting the rationality principle as a kind of condition of intelligibility, Popper rediscovered a fundamental intuition that had been overemphasized, a bit awkwardly, by the apriorism of the Austrian economists.² However, he wrote these pages on the rationality principle hoping that the acknowledgment of such a condition of intelligibility for the social sciences would not conflict with the tenets of his empiricism. The fact that many commentators seem to find blatant contradictions in this text testifies as to the difficulty of the challenge that faced Popper. The present interpretation of Popper's text does not succeed in eliminating all of the difficulties; at the very most, it suggests that these difficulties do not result from the accumulation of an astonishing and quite unusual

² I tried to show this in a unpublished text, "Mat Is Right with Apriorism ?" A slightly less elaborated version of it was published in French (Lagueux 1988).

number of contradictions in this short text. If this interpretation is sound, these difficulties would, rather, result from Popper's characteristic tendency to underestimate the problems involved in the actual practice of social sciences, in particular, that of evaluating, from the point of view of psychological analysis, the validity of a principle as fundamental as the rationality principle. The present purely exegetical contribution to the debate about Popper's short essay does not imply that I am prepared to endorse a position, which, at the very least, suffers from a certain amount of psychological naïveté. I think that it is nonetheless justified if only because, psychologically naive or not, Popper's thesis is fascinating enough to have generated a considerable debate about a question that is indisputably a central one for the philosophy of social sciences.

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Fin du texte.