

Giuseppe Franco, editor, *Der Kritische Rationalismus als Denkmethode und Lebensweise: Festschrift zum 90. Geburtstag von Hans Albert*. Klagenfurt: Kitab, 2012, 34-55

Critical Rationalism, Comprehensive or Qualified:

*The Popper-Bartley Dispute*¹

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0. Background.

Karl Popper discussed admirably the choice between faith and reason [Popper, 1945, Ch. 24]. He admitted that the basis of rationalism is a faith of sorts, a faith in reason. Later on his disciple William W. Bartley dissented from him [Bartley, 1962] and even called him a fideist [Radnitzky and Bartley, 1987, 205, 208, 210-11], much to his annoyance. All this caused bad blood between the two [Lakatos and Musgrave, 1968, 89, 114], which is most regrettable. It is understandable, though, as the matter is very complicated. Let me show this now.

Fideism is a minimal retreat from classical rationalism. As this theory is comprehensive in its demand for proof as ultimate justification, it begs the question of its own justification. All parties to the current dispute admit that this is a defect that has no cure except by some modification. To that end adherents to fideism advocate some axiom taken on faith as the minimum necessary concession to irrationalism. The rationalism that the advocates of fideism qualify is the classical theory of rationality, that is, to be precise, an assertion plus a demand. The theory is, rationality equals proof. The demand is to make an assertion – or to endorse it, to believe it – if and only if proof is available that the assertion is true. As the skeptics have shown, any proof of any (synthetic) assertion requires a proof theory that requires proof in its turn. (The possibly of proof in logic and in mathematics has no place in the present discussion.) The skeptics have then recommended holding no

¹ I wrote the penultimate draft of this essay in 1996 as a visiting scholar at The Royal Technical College, Stockholm.

belief, making no definite assertion, holding all views only tentatively. Skeptics claim that they have a proof that no proof is possible that should satisfy classical rationalists. Most rationalists have invested much effort in attempts to find fault in that proof, and they are still trying. As this essay concerns the dispute between Popper and Bartley, who both endorse the skeptic proof, we may take the skeptical proof for granted. Hence, the classical theory of rationality cannot stay as it is. The advocates of fideism conclude, then, that some retreat is imperative. The minimal deviation is an assertion that advocates of fideism recommend to endorse without proof. That is to say, they recommend its endorsement upon faith. There are two standard candidates for that assertion: the principle of induction and the faith of one's forefathers.

Of course, not all deviation from the classical theory of rationality is fideist. Since advocates of fideism propose that the deviation from the old view should be minimal, it is hard to see how this proposal is contestable. An obvious point to contest concerns the question, what deviation is minimal. On this Popper has made a brilliant alternative proposal. Although it has not gained popularity among advocates of fideism, it is obviously the best thus far offered. It is this. The least concession should not be the faith in any principle of induction, much less in a given traditional faith, but preferably in the possibility that rational debate may generate progress. Advocates of fideism may object to this obviously superior proposal: it accompanies a lower standard of rationality. Whereas the classical theory of rationality equates rationality with proof, Popper's theory equates rationality with the critical attitude. What is preferable, one irrational axiom or this reduction of the standard? The answer is that the reduction of the standard is necessary anyway since the skeptical criticism of traditional rationalism is valid. (Thus, Bertrand Russell advocated the adoption of some principle of induction upon faith in the hope that it will suffice to

justify current science [Russell, 1992, 38]; [Russell, 1996, 313-28]. He did not manage to formulate it explicitly.)

Popper has proposed two brilliant minimizing moves: of the standard of rationality and of the concession to irrationalism. Bartley has shown that there is no need for the two moves, as one will do. This he proved conclusively: reducing the standard of rationality renders a concession unnecessary. It is a shame that Popper has not admitted this, suggesting instead that Bartley just improved the wording of what he had intended to advocate all along: he denied that he made the mistake that Bartley had attributed to him. It is likewise a shame that Bartley conflated his valid criticism of Popper with his own alternative to it: only the criticism, not the alternative to the criticized theory, is uncontestable. The errors on both sides led to an impasse. In desperation, Bartley called Popper a fideist, and Popper took offence. My aim here is to rectify these two errors and thus restore the peace between their ghosts.

Now the fideism that Bartley has saddled Popper with is at the very least not the traditional version but an improvement on it. It says, welcome critical scrutiny as progressive. If this is a version of fideism, then it is an admirable version of it. Both Popper and Bartley have confused this idea, be it a version of fideism or not, with a slightly greater demand: do not advocate a theory unless it has passed critical scrutiny. This version of rationalism, be it fideist or not, both Popper and Bartley rejected, and rightly so, despite its superiority over the more traditional versions of fideism. Regrettably they did not praise it before rejecting it, although by the canons of criticism they should have.

Taking for granted here the skeptical criticism of traditional rationalism, let us consider the question, which modification of it is right? Considering any proposed modification, why should we adopt it? To take it upon faith has all the defects of fideism without its advantage (of being a minimal concession). For the sake of the

argument, let us agree to prefer the modification that is the smallest concession to irrationalism. What is it? And is that preferable to the original fideist view? And worse, how are we to adjudicate on this without begging the question? Still worse, whatever answer to this question that we may offer, will it not remain fideist at heart?

Bartley acutely observed that when Popper said that his proposal (to take the faith in reason on faith) is a deviation from rationalism, he was in error (or at the very least unclear): the deviation is from classical, not from critical rationalism: applied to itself, classical rationalism does not live by its own precepts (it begs the question); applied to itself, critical rationalism may live by its own precepts, at least possibly so. So far this criticism of Bartley is obviously right, and Popper should have acknowledged its validity. Unfortunately this did not happen. Partly it was Popper's failing, partly it was a confusion that rested on the fact that Bartley had his own view of critical rationalism that Popper had all the right to reject – but not before admitting the validity of Bartley's criticism.

For my own part, I am no party to this dispute [Agassi, 1981, 72, 100, 465-71, 474, 476]. My aim here is not to take sides but to clarify it and perhaps to remove the very ground for it. I reject the framework within which it takes place. My alternative to that framework is the idea that rationalism is a working hypothesis. Thus it is neither a basis for rational thought nor an object of faith, but simply an assumption that facilitate rational deliberations. It seems to me that on second thought both Popper and Bartley would have agreed. They could object that I have not said what rational deliberation is, but here I defer to their own views on it, which are quite traditional and also sufficiently unproblematic to serve as the default option.

My effort to neutralize a dispute may sound like an exercise in the tradition of logical positivism. It is not. For, it replaces a metaphysical framework with a better one, and it does not destroy a problem but replaces it with a better alternative, much

in the tradition of critical rationalism. Thus, needless to say, I ascribe my alternative to Popper and Bartley and take their input as either *propaedeutic* (preparatory) or the long way around, as you like it.

1. The hyper-stable working hypothesis

What characterizes a working hypothesis most is its fluidity: there is no commitment and hardly any reason to it: its adoption is for a lark. One may even take it on a whim, though on occasion it is common sense. And what one takes on a whim is ephemeral, of course. Still, some working hypotheses stay, for good reasons or bad. My concern is with a working hypothesis that is hyper-stable. So let me show first that these exist. My claim is that this stability is the most general characteristic of any reasonable view of duty. So please be patient.

We act voluntarily yet under constraints. Classical liberal thinkers often said, in principle there is no difference between free and coerced action. Nevertheless, one difference matters, between keenness and reluctance: we may act reluctantly out of a sense of duty. Of course, classical liberal thinkers viewed duty-bound conduct as not peculiar, as it is up to us to decide to behave morally, so that we always act voluntarily. Nevertheless, the difference between the fulfillment of one's own interest and that of others is a matter of principle. This is particularly so in cases of acts with unlikely consequences. When we face options that are not likely to yield fruits, we tend to adopt choices that are easiest: the game is not worth the candle, we may say to ourselves and quit. Yet when the game is obligatory, this is unacceptable. Many moral acts are unlikely to have worthy consequences, yet were that a sufficient excuse for quitting a task allows us to be socially apathetic and even asocial. When it comes to affairs of other people and more so to public affairs, as the duty of hope we should grant the Good Lord the benefit of doubt [Agassi, 1999, 50-4, 124-5]. In our

own affairs we may be more realistic. Hence, whereas optimism as an opinion is foolish, as an attitude it is just right and often even obligatory.

This is a peculiarity of action out of duty as opposed to one out of self-interest, and so classical liberal theory is wanting. Its error rested, indeed, on an optimist assessment of the outcome of the broad application of rationality: optimist assessments prevent the appearance of the difference in attitude that morality prescribes between satisfying the personal interests and those of others. World War II exposed this optimism as an error. It matters not whether the error was in the assessment of the ease with which rationality would be broadly applicable or in the assessment of its outcome. What matters is that the optimist assessment of the outcome of our actions is no longer the default option, and that it should stay nonetheless as an assumption for our actions – as a stable working hypothesis.

A dreadful example for this is the conduct of the Jewish leadership, especially the Zionist leadership in the United States of America during the Holocaust. They sabotaged efforts to rescue the Jews of Europe [Agassi, 1999, Ch. 15]. Now they say, they knew these efforts were hopeless. This is a mere excuse, not only because records available now refute this assessment, but also and more so because *a priori* such assessments may be false. Still, admittedly, at the time the assessment was bleak and it was reasonable (though erroneous). This example may be poor. This is of little consequence, since alternative examples are easily available.

The hypothesis that we may make a difference should serve as a hyper-stable working hypothesis. It is my alternative to the ideas of Popper and of Bartley about the choice of a theory of rationality. Let me explain.

2. Between Classical Rationalism and Fideism

The starting point here, to repeat, is the admission of the skeptical criticism of the classical theory of rationality: proof is impossible. Advocates of irrationalism often use this criticism as the rationale for their rejection of all theories of rationality and of all proposal and demand to behave rationally. Those who reject the classical theory but wish to adopt another add some adjective to the name of the theory of rationality to differentiate it from a theory that they might endorse. The adjectives often used are "traditional", "classical" and "Cartesian"; Karl Popper suggested "comprehensive", since the classical version advocates the comprehensive demand to affirm no view ever except proven ones.

Being comprehensive, classical rationalism demands to jettison all of familiar ideas, so that the learning venture should begin afresh with no assumptions, with a clean slate, and with utterly open minds. In brief, classical rationalism is radical. Descartes attempted to apply it in his celebrated thought experiment, performed in the hope that starting afresh guarantees the establishment of a true, scientific image of the world. He failed, as did all of his disciples.

The classical theory of rationality bumps into two interlocking standard objections. The first is the classical skeptical argument: proof is question-begging. An obvious logical way to overcome this is by the admission of some sufficiently strong initial basic axiom. The standard examples are, the principle of the simplicity of nature, or of limited variety, or of induction. Some other axioms are available as well. Their adherents defend their choices with a new argument that exposes the comprehensiveness of classical rationalism as further weakness: the principle, whatever it is, requires the assumption that it suffices for the development of a rational worldview and of science as we know it. This added assumption repeatedly meets with a refutation that exposes the proposed principle as not good enough.

Consider then the opposite extreme: irrationalism. Its advocates recommend giving up rationality; this fascinates those who find the irrational attractive, appealing, overpowering: they are tired of rationality. They are intentionally unreasonable, forgetting that the intellect is the most powerful instrument that Nature has put at the disposal of humanity, and the refusal to use it is lamentable. The advantage of unreason, however, is that it is license for the use of poor arguments. Those who use this license denounce logic as perverse, as opposed to human natural healthy instincts, or to tradition or to traditional religion, or to whatever else they may advance as superior to reason. Yet, as a mere working hypothesis, this reveals some interesting ideas. Prominent among these is the view of the first irrationalist, Heraclitus, the famous pre-Socratic thinker, who probably reacted to the first version of rationalism, that of Parmenides. Plato's Socrates called irrationalists mysologists, the haters of logic (*Phaido*). Despite this hatred Heraclitus offered some valuable criticism of rationalism and some new ideas. Nevertheless, here let us dismiss misology.

Irrationalists need not giving up the use of the intellect. Its use does not require any recognition of it as an authority over all thought processes – it can be useful without being authoritative in any way. Hence, irrationalists may have a choice in specifying what portion of their thought process the intellect is not to control, as long as the choice does not intervene with their ability to use logic, even with a vengeance, in areas deemed well within the province of reason, such as mathematics and physics and their practical applications. What then is the suggestion to limit rationality? Where exactly does rationality cease to adjudicate? The irrationalist literature has many answers to this question that serve well as merely working hypotheses.

The better of the disenchanted with classical rationalism distinguish between the criticism of the classical theory of rationality that all of them endorse and the idea on which they disagree as to what to place outside the domain of the intellect. They

rightly insist that the latter is less important than the former, since it leads them to agree that some presupposition, no matter what, must obtain with no rational basis, no matter upon what other kind of basis it might rest; indeed, they may add, one may endorse quite arbitrarily any presupposition as the initial basic axiom for rationality. Some presuppositions are so useless that they are overlooked. (For example, the assertion that Superman exists will be obviously utterly useless here.) They advocated arbitrary presuppositions are usually far from being satisfactory too, but as working hypotheses they may be handy and when one fails its advocate may abandon it for another. Of course, being irrationalists they may also cling to it dogmatically.

An example of this dogmatism is collectivism, made popular by Émile Durkheim, one of the two acknowledged fathers of modern sociology. Most irrationalists endorse collectivism dogmatically, despite its obvious defects; they take as their initial basic axiom tradition, religious or national, or some authority, intellectual or political, or any other item that they declare vital for the maintenance of social stability. Their basic axiom then is that society with no stability is too objectionable to take seriously into consideration as a viable option. This is sad, but there are sad options on the opposite side too, namely on the side of individualism. As a stable working hypothesis this is very common in the social sciences. It is especially popular as Max Weber, the other of the two acknowledged fathers of modern sociology. He took as the initial basic axiom for rationality a personal faith. This is the source of the label "fideism" ("*fideo*" means, I believe). Advocates of fideism stress the logical impossibility of rationalism as long as it is comprehensive, and the need to choose an initial basic axiom in order to reinstate it. Assuming nothing, one has no reason to activate the project of developing rationalism and a rational worldview. This is the so-called "the *tu-quoque* argument" (meaning, you

too): comprehensive rationalism is impossible, therefore, rationalism too rests on an initial basic axiom, namely, that rationality is at all possible and desirable.

Rather than ask, what did Weber use for proof, let us examine the *tu-quoque* argument. Supposing that it is valid; does this support fideism? Does it exonerate the utter arbitrariness (absence of logic) of the choice of an initial basic axiom? It does not sound right. Most advocates of fideism believe in their tradition and Weber hated tradition and expressed faith in science. This observation is so obvious that we must ascribe its neglect to its being taken for granted: of course, the initial basic axiom has to be sufficiently rich in content to enable it to save rationalism from its initial predicament. That we take this constraint for granted is obvious, yet the systematic neglect of its articulation is a remiss, since there is an obvious need to specify its features and discuss them. Now, how should we decide whether our chosen initial basic axiom is strong enough? Should it perhaps also be not too strong? And then, even if we find that our chosen axiom is strong enough but not too strong, then we may ask, is it unique? If it is, then we can eschew fideism even in the light of the *tu-quoque* argument – as unnecessary: the constraint to classical rationalism imposed on it by the *tu-quoque* argument then leaves no room for any arbitrariness and it then becomes eminently rational as the most efficient means to rescue rationality.

This move is very welcome, as it dispenses with the most undesirable corollary to fideism, namely, the claim that there are different and equally legitimate kinds of rationalism, depending on one's pre-logical choice of one's initial basic axiom, and that the validity of each is constrained by its alternatives. What is said here may be true or false, but it is a way out of the predicament of classical rationalism that is not fideist in the usual sense of the word, as it employs the *tu-quoque* argument without conceding the arbitrary choice of any axiom.

The undesirable corollary just mentioned was praised by the great fideist and mystic anthropologist Sir Edward Evans-Pritchard as most desirable. This makes his fideism not so arbitrary. Any defense of the choice of an initial basic axiom will then be rational. And then it is better to take as the initial basic axiom Russell's celebrated proposal.² Another proposal, perhaps even better, was introduced by Popper in Chapter 24 of his classic *The Open Society and Its Enemies* of 1945: the belief that criticism bespeaks progress. He called this "the faith in reason" and characterized it as the minimal required deviation from comprehensive rationalism. Russell hoped that his *a priori* supposition would permit reinstatement of classical rationalism in some attenuation; Popper offered a fully-fledged new theory of rationality as disproof³. If any suggestion for an initial basic axiom is acceptable, then a theory of rationality is possible such that it is neither classical nor fideist, and this regardless of whether the proof or disproof is taken to be the criterion of rationality. The claim is that the arbitrariness of the initial choice does not follow from the *tu-quoque* argument, so that it can be made quite rationally.

If classical rationalism is to be fully restored, however, it is not enough to qualify it rationally: proof has to be shown possible. If it is, then an example will establish this possibility. Is there any? It is easy to adduce proofs, and even of diverse kinds, mathematical, scientific, and legal: for convictions in murder trials evidence should establish guilt beyond reasonable doubt, and at times it is declared achieved. Skeptics and advocates of fideism admit that such proofs exist. The question is the same as, would such proofs be acceptable to Descartes as valid? We do not quite know what kind of proof would satisfy Descartes, and probably he himself did not

² Russell suggested considering the principle of induction *a priori* valid, yet with no transcendental logic to sustain his assumption: he portrayed it as an unjustifiable principle of justification.

³ Logical disproof is logical proof (by *reductio*); empirical disproof is not. This is the famous asymmetry thesis of Bacon [Bacon, 1620, I, Aph. CV] and Popper. Yet possibly Bacon suggested that a crucial experiment is symmetric after all [*op. cit.*, II, Aph. XXXIV].

know that either. To restrict the discussion to mathematics will not do; he would not agree to this. Also, this would not help as controversy still surrounds the question, what are proofs in mathematics? Descartes did offer a criterion for valid proof, but it is unclear and by now abandoned. To be clear about what valid proof comprises, a theory of proof is required. But then, naturally, whatever this theory will turn out to be, it will be question-begging. It is this very observation that led to the ancient skeptic conclusion that proof is impossible. Hence [classical] rationality, too, is impossible. So, the followers of Pyrrho, the Pyrrhonists, suggested that one should never adopt any view, that one should always suspend judgment. Fideism is not any philosophy that takes some initial axiom for granted: most philosophies do so. Fideism is the endorsement of the skeptical critique of classical rationalism as logically unassailable, plus the refusal to abide by the proposal to suspend all judgments or the observation that no one can follow this proposal.⁴ Advocates of fideism declare the only way out of skepticism the initial endorsement of some basic axiom prior to the acceptance of the rationalist canons of proof. Taking this last sentence seriously one may see that whether the proposals of Russell and of Popper are satisfactory or not, they have unquestionably rendered a great service by refuting this fideist assertion: feasible or not, they show the existence of alternatives that are not as arbitrary. They have thus sensitized us to the inconsistency of the advocates of fideism who defend their initial basic axioms, and even without stating them explicitly.

2. Between Fideism and Critical Rationalism

The question, which axiom to endorse, seems to advocates of fideism beside the point: as the choice of an initial basic axiom is arbitrary in the sense that (for logical reasons) it is pre-rational and so not rational. Here some doubt as to the sincerity of

⁴ It never ceases to amaze me that most skeptics endorse this assertion with profound conviction, all evidence to the contrary notwithstanding.

advocates of fideism may be raised: how come they usually endorse the faith of their fathers, whatever this happens to be? They retort that this choice is the most convenient. This sounds as if convenience is the supreme criterion of choice. Moreover, which choice is more convenient invites the investigations that they forego. One may try for comfort different initial basic axioms one after the other: take as an initial axiom the thesis that repetition renders choice progressively intelligent and reasonable. This kind of conduct, and the decision to adopt it, is rational. The best variant of fideism, then, the one closest to the fideist own mode of reasoning, is to make a basic decision afresh each day. Advocates of fideism may reject this as it is inconvenient, but then, criteria for convenience as well as feels for it are no initial axioms and so they can be overruled. To conclude, even if fideism is true and an arbitrary choice of some initial axiom is required, it need not be final. Some existentialist philosophers say that a commitment to an initial axiom that is not life-long is not serious. But to take seriousness as more compelling than intellectual progress makes it one's initial basic axiom, and an inadmissible one at that, since it runs contrary to logic by blocking all criticism. Admitting this, however, demands that every candidate for initial basic axiom should prove irrefutable.

Advocates of fideism ignore the range of choice of initial axioms to employ as the basis of rational thought, possibly because most of them are traditionalists and once they succeed to reconcile their traditional faith with rationalism they are content. If so, then this is their initial basic axiom: they are traditionalists and rationalists. Is their choice arbitrary? Some of them endorse their traditions without examination; others defend them in the name of social stability, and of these, Evans-Pritchard and others, conclude that different traditions hold for different societies. They defend rationalism while rejecting the classical Cartesian hostility to tradition.

All this is conjecture, which is thus suspect, especially since finding any rationale to the fideist initial basic axiom deprives it of its arbitrariness and so of its very fideism. But then, whenever advocates of fideism argue for their fusion of tradition and reason, they do so by defending their initial basic axiom — as arbitrary or otherwise — they are advocates of fideism no longer.

Most non-religious advocates of fideism are pragmatists; they advocate faith in science for practical reasons. This invites a careful distinction between pragmatists proper and pragmatist advocates of fideism: the former view usefulness as the basic criterion for belief in any opinion; they deem utility the ground of belief: according to them rationality is not proof but usefulness. Hence, like Popper, they offer a non-classical, theory of rationality and so they are not advocates of fideism at all. Hence, the best criticism of pragmatism proper is the observation that in order to decide what idea is useful we need some workable criterion of rational decision between the options that the choice of this or that hypothesis is most useful. Advocates of fideism do not claim that utility or any other criterion is a criterion of rationality; rather, they take it as the initial basic axiom that is chosen prior to being rational, as the precondition for it; other than that, they adhere to the classical view of rationality as proof, and so the strong criticism of pragmatism just voiced does not apply to their view. One may, of course, suggest that the initial choice of rationality is not useful, but this is an initial basic axiom, a dogma not subject to critical debate.

Today taking science to be the most useful set of beliefs to advocate is extremely popular. Its popularity suggests that possibly behind it stands mental laziness plus the hypothesis that following the majority is most convenient. This is no fideism. Nor is the thoughtless adherence to the majority view, nor is the view of one who has never examined one's views and who does not know what exactly it is. It may but need not be fideist proper. It is clear that these differ; the question is, does

this difference make a practical difference? A difference, to be a [real] difference, said arch-pragmatist William James, must make a [practical] difference. Is there a practical difference between pragmatism proper and pragmatist fideism?

At least this should be observed: the *tu-quoque* argument makes it clear that those who use it view us all as advocates of fideism at heart, whether we know it or not; and then even if everyone behave in the fideist manner, the advocates of fideism are still practically better off as they possess a greater self-awareness. But surely, whether this is so or not is both forever question-begging and empirically decidable, which is absurd.

Pragmatists have replaced proof with utility as the criterion of rationality. Other criteria may be proof-substitutes too. Each of them may serve as an alternative to the classical theory of rationality or as a fideist basis for the quasi-classical one. This depicts the whole scheme in a new way. For, now the question is generalized: pragmatists or others who take utility or any other quality as their supreme criterion, do they use it repeatedly and eschew proof proper, or do they use it initially and then require proof? Is theirs an alternative rationalist view or is it a quasi-rationalist one? This is a big difference, as it is procedural and so it effects almost every deliberation: deliberations may employ proof (though on the basis of an arbitrarily chosen axiom) and they may employ an altogether different criterion of rationality.

This reasoning may expose pragmatism as a version of fideism; it also exposes advocates of fideism as rationalists for all intents and purpose, as long their initial basic choice of rationalism is not challenged. Their discussions can, perhaps also should, be scrutinized as to whether or not, in addition to their axioms, advocates of fideism usually advocate the demand for proof. Now, clearly, almost all discussions incorporate some initial hypotheses, except for Descartes' radical thought experiment and its alternatives, all of which are now judged unavoidably failures. Hence, there is

no practical difference between the fideist mode of arguing and other, except for one: whenever what they happen to consider their initial basic axioms happens to be challenged, they refuse to discuss it. Here, all of a sudden, the *tu-quoque* argument breaks down and drops out of the picture. Contrary to it, there is a basic difference between the fideist and others: we all exempt some dogma from the demand to examine it rationally, but the advocates of fideism exempt their own dogma consciously and systematically and for good. This is a great self-awareness, and one that they might naturally take pride of. It turns out to be their awareness of their irrevocable commitment to a dogma, and as a necessity. But this turns out to be a mistake: there are better ways to handle the situation.

The very use of the *tu-quoque* argument rests on error: it is used as an excuse to exempt from rational scrutiny some unspecified view, on the basis of the observation that usually we all do so (since the skeptic critique of classical rationalism is valid). But we all do so now and then, whereas advocates of fideism do so come-what-may. This is why the suggestion to keep one's initial axiom floating is so deadly to fideism; its hidden assumption is that their retreat to commitment is a leap of faith in the sense of Kierkegaard, as Bartley has discovered.

Bartley saw the situation this way: taking the *tu-quoque* argument as support for fideism is placing it on the borderline between rationalism and irrationalism and invites efforts to refute it: its refutation is required not for irrationalists but for rationalists. He was in error: the *tu-quoque* argument is but a variant on the skeptic critique. Even were it unanswerable, it would remain better to take reason upon faith than to be defensive about some proper dogma. This point belongs to Popper. It is lovely. In his effort to dodge Bartley's criticism he lost it. pity.

This is no defense of classical rationalism, of course, since the skeptic critique of it as question-begging is taken here as valid, even if only as a working hypothesis;

this is to dismiss the fideist critique as no boost for it. This dismissal holds equally for classical rationalism and to any other variant. To make this evident, let us consider the idea of the ancient Pyrrhonist school, the view that one can live without adherence to any view, with total and permanent suspension of judgment, and that the practice of the suspension of judgment provides peace of mind (*ataraxia*). This is questionable, but let this ride and let us ask, is Pyrrhonism fideist? Possibly, as a matter of fact, every school has an initial basic axiom. Even were this true, as neither school has noted this, it is hard to decide which of the two schools is nearer to fideism, the Pyrrhonists or the classical rationalists. That there is a great practical difference between them, however, is all too clear. Hence, the *tu-quoque* argument makes no practical difference even between skeptics and classical rationalists, though the skeptical argument clearly does.

I know Popper and Bartle agreed that they disagreed; I do not know on what. Perhaps Popper has offered a new comprehensive theory of rationality that is less question-begging than comprehensive classical rationalism, perhaps not; Bartley claimed that he did and that Popper did not; but then perhaps both did and perhaps neither did. If both did, and if both did not, are the views of the two identical? For uncontested background information, the very demand for openness to criticism is taken for granted. Popper's innovation that Bartley endorsed but that is still the minority view is the assertion that this demand suffices for rationality, including the rationality of science.⁵ Popper's theory of rationality is very far-reaching, and is far from obvious. Bartley found it admirable but defective in not being comprehensive.

3. Between Popper and Bartley

⁵ This point would not invite restatement were it not repeatedly misconstrued by the leading American philosopher of science Adolf Grünbaum who calls himself neo-Baconian and denies Popper his originality.

Whereas classical rationalism broke down because it is comprehensive, fideism is painful because it is not. Hence, rejecting both amounts to rejecting what they share: the idea that rationality is proof. Consider, then, critical rationalism, the idea that rationality is disproof. Can we not show both options of it, qualified and comprehensive, likewise painful? Can we apply the skeptical argument to comprehensive critical rationalism and find it wanting, and then to apply the rationalist critique of fideism to qualified critical rationalism, and then be done with it altogether? Let me defeat this program.

Consider first the application of classical rationalism to critical rationalism (qualified or comprehensive). This way critical rationalism fails of course. This has been showed repeatedly in the literature, yet it is trivial. Moreover, this is offered as fatal criticism, yet it is no criticism at all: there is no reason why critical rationalism should submit to the rules of classical rationalism. Should it be applied to itself instead? That classical rationalism should be proven by its own light is clear. But critical rationalism should be held open to criticism, perhaps, or else it should be qualified. Here possibly Popper and Bartley disagreed. What is the reasoning here? Can we discuss this matter without begging the question?

The claim that logic is obligatory is inherent in the history of the debate over rationality. Hence, it is not contested that the aim of criticism is to refute its object. From the very start Popper stressed that he never adjudicated the matter of the success of each piece of criticism, that all he said in general was no more than what logic requires: if and when a piece of criticism is judged successful, then it is thereby also judged as having refuted its object. To repeat, Popper offers as a solution to the problem of rationality not a logical truth, but a conjecture, the novel theory that disproof suffices for the advancement of knowledge in general and of science in particular. How does he know that disproof suffices? He does not; it is his conjecture.

Query: is it rational to advocate this presupposition, this initial basic axiom? Can there be a critical debate of it? If not, it seems fideist; if yes, it seems comprehensive. Which is it?

Assume that we must choose some initial basic axiom; how can the choice be rational? Given Popper's theory of rationality as openness to criticism, the answer to this question is obvious: to the extent that it is criticizable and open to criticism, it is. Does this apply to Popper's own choice? Should a critical rationalist be open-minded about being open-minded? This is hard to say. Let us try to do so by splitting critical rationalism into two theses, one minor, one major, so that the question splits into two as well. The minor thesis is that criticism is binding. Is it? In other words, is logic binding? The major thesis is that disproof suffices for intellectual progress. Is it? Till now adherence to logic was taken for granted; nevertheless, possibly, comprehensive critical rationalism requires an examination of our commitment to logic.

Already Plato asked, how binding is logic? In the end of his *Phaedo*, describing Socrates' last minutes, he ascribes to him the refusal to give up reason; nothing, Socrates seems to say, will sway him away from logic: he will never be a mysologist: even in his last hour he will gladly accept criticism. It is hard to say whether this reading of the text is right, since the question is intricate. But Popper's text seemed to me clear enough — until he declared Bartley's reading of it erroneous: I then began to doubt my reading of his text. For a lark, however, let me cling to my old reading of his text, as examining a view is more important than its authorship. (Besides, the first author of qualified critical rationalism is anyway Plato or Heinrich Heine.) To avoid all misconception of my motive, let me repeat: this discussion is no defense of Popper or of Bartley, since I dissent from both.

Plato's insistence on open-mindedness, his refusal to be open-minded about it, seems to identify rationality with logic. This is not clear, especially since formal

logic was invented later, and since it was not satisfactory till the twentieth century, if ever. So logic was open to criticism. Is it still? If yes, can its authority be revoked? In other words, can there be a critical debate on the rationality of logic, and if it is found defective, can it be taken for granted? This depends on what we mean by the demand to reject a refuted version of it. If it is the demand to improve logic, then yes; if it is the demand to jettison it, then no. Hence, in the broad sense logic is not given to rational deliberations, and so it is the initial axiom of rationality. Yet, in the narrow sense logic is very much given to rational deliberations, and this is expressed in the perennial efforts to improve it. (This seems to be the major thrust of the critique of the view of logic as above criticism that we usually ascribe to Van Quine⁶.)

This holds for all possible versions of the theory of rationality, since, to repeat, discussion of it was always conducted within logic. And then, Popper's claim that rationality is not comprehensive can be seen (not as a concession to fideism but) as making explicit a point that was traditionally taken for granted and that the modern history of logic makes its explicit statement desirable: the broad commitment to logic invites efforts at its improvement in detail. Once this is noted, the discussion of comprehensiveness has to be recast in a more precise manner. For example, the advocates of fideism' commitment to their tradition is less irrational if it is only a broad commitment, while being open-minded about any detail of it. (This is no small difference, as it replaces the refusal to engage in intellectual traffic between different traditions with a proposal to have it, at least up to a point, but the point is movable.) Popper has advocated this attitude to tradition in his classic if neglected 1947 "Towards a Rational Theory of Tradition" [Popper, 1963].

With more due care, then, Bartley's comprehensiveness may read, his commitment to logic is rational since he is open to its critical assessment. The same

⁶ Quine called himself a non-justificationist but he never elaborated.

holds for Popper, of course. Where, then, is the difference between qualified and comprehensive critical rationalism? Perhaps the difference lies in the disagreement about the major thesis, the thesis that the engagement in critical debates suffices for the advancement of learning. Since criticism involves logic, the discussion of the major thesis involves the minor one, but we need not go over this ground again. Suppose that the thesis that criticism suffices for progress is refuted, then. What will this suggest to critical rationalists? Again, it seems, it will invite an improvement, not a total overthrow. This seems to be the attitude advocated and practiced by both attitudes. So how do they differ?

This is not an idle thought. Critical rationalism was criticized both ways: once — by Feyerabend and myself — with the observation that at times the suspension of criticism (at least for a lark) is wise (as Popper admitted citing Galileo to that effect) and once — by myself — with the observation that scholasticism was critical but not progressive. The reason for this defect is clear: scholastic criticism was conducted within a given framework that was not given to criticism; this was done consciously, on the ground of the view that debates have to be limited by some initial basic axiom, very much in the fideist manner. Popper was aware of this: in his early work he demanded that the most theory most given to criticism should be examined first, and he later criticized the scholastic theory, which he called "the myth of the framework". He was thus unclear if not inconsistent. The way to overcome the inconsistency is to speak of maximal criticism instead of criticism when wording the thesis of critical rationalism. Popper suggested that the demand for maximal openness to criticism will eliminate, or at least sufficiently prevent, the use of *ad hoc* hypotheses, as there reduce the level of openness to criticism of hypotheses.

Except that this was criticized too — also by myself. Many theories in technology are very open to criticism yet are very much *ad hoc*; efforts to put them to

test are made repeatedly, as they are of great technological value. Yet they are not deemed intellectually as interesting as the scarcely testable theories that are on the forefront of theoretical research. Since critical rationalism does not differentiate between pure and applied research, it demands improvement. This holds for Popper and for Bartley equally.

Since qualified critical rationalism demands openness to criticism not only in the abstract but also as exhibited in the possibility of a concrete criticism, in the high risk of the theory in question, Bartley could ask Popper, how great should this risk be before it is deemed great enough? Popper had an answer to this question already in 1935, but only as far as science is concerned: the risk is measured there by the likelihood of an experiment that can be designed and performed to refute the theory in question; this likelihood can be measured by some extant alternative or by common sense. But Popper himself admitted in 1945 that weaker kinds of criticism are possible, in history and in philosophy, including ethics. How much should the risk be a real one? (Significantly, Bartley took seriously the weak criticism that pseudo-intellectual sects directed against the established commonwealth of learning. He suggested [Bartley, 1990, 100] that since the academy is so very dogmatic, these fleeting intellectual clusters are where the action really is. This view is intriguing but alas not serious.) Nor is that all. Popper spent much of his effort arguing that criticism is beneficial, which should be incontestable, and that the theory of rationality as the critical attitude does not suffer from the skeptical critique. Bartley on his part spent much time arguing that since critical rationalism is not hit by the skeptic critique it can be held comprehensively. But they both argued prematurely, overlooking the critical examination of the claim that they perform the task for which they were designed.

The question that the classical theory of rationality came to answer is, what theory should be believed? Critical rationalists refuse to answer this question, as it prefers the diversity of opinions. Rather, it comes to exclude the theories that are not reasonable to believe, beginning with traditional local myths. The wish to promote the progress of science is better than the wish to believe in current science. Proof does not do it; does disproof? No; critical rationalism never guaranteed success. Can it at least explain success? No; explanation amounts to guarantee: to say that A is caused by B is to guarantee the presence of A in the presence of B. Critical rationalism guarantees not the success in providing conjectures and their criticism, but that when these are present, progress obtains. How? The answer is what makes critical rationalism so very intriguing: criticism is not the cause of intellectual progress; it is intellectual progress. This, however, is a new conception of progress, and it can be challenged. We have not shed light this way on an important matter: why is the Popper-Bartley dispute important? In answer to this Bartley said, erroneously, because the *tu-quoque* argument is a serious challenge. This challenge may signify at most for critical rationalism, not for science proper.

4. Rationality as Partial and as Social

We see again that the discussion requires better presentation. Let us begin with rationality, whatever it is. Rationality as proof is an all-or-nothing affair; criticism is possibly more graded. Consider it a matter of degree. I. C. Jarvie and I have introduced this idea decades ago. The measure of the degree of rationality, we suggest, is not some abstract scale but depends on the available intellectual tools. It is clear, we said, that for one living in a preliterate society the most rational act and attitude will be much inferior to that available to one living in a society familiar with science. This enters the social dimension into the debate, and so it really needs going over and, when necessary, recast. This is no small matter. Traditionally the options

available to social philosophy were individualism and collectivism. As collectivism naturally distrusts individual reason as disruptive, it tends to be irrationalist. Individualism then ruled the debate on rationality. And as individuals depend on society to this or that extent, though not wholly, their rationality should be cast in social terms and then viewed as partial.

To take a simple example, whereas traditional advocates of fideism discussed the matter of rationality in an individualist framework, they could hardly answer the question, how should I choose my initial axioms? They did not have clear instances of initial axioms, and it looked as if infinitely many alternatives are available. Asking the question in a social manner it becomes the question of the choice of a community, and there are a few communities to join; moreover, one cannot change communities every week, and so, for merely technical reasons, one must live on one so as to acquire its basic tenets. It was stressed by Michael Polanyi, that when one joins a community one scarcely knows what it has to offer, especially if the community in question is the scientific community, and that when one learns the initial basic axioms one may find that they are not given to simple articulation. He stressed, however, that one can belong to more than one community without fear of contradiction. He did not elaborate. Another historical example should serve as evidence of the defect of the abstract discussion that Popper still participated in: the old scholastic tradition is not considered as rational as the new scientific tradition (even on the supposition that the old gave birth to the young). I skip the details here.

As long as science plays the role of a paradigm of rational activity, the individual is most rational when joining the scientific community. Popper has suggested that science is a social institution, one that encourages criticism. He also suggested that parliamentary democracy is such a paradigm, and the same holds for that paradigm. That there may be inconsistency between science and democracy, as

well as within each, is no reason for defection, as it may be a challenge for efforts to improve. Popper said, the reason for these being paradigms of rationality is that rationality is the effort to improve through criticism.

Can we rephrase the Popper-Bartley dispute within a social framework? All theories of rationality recommend joining actively the life of science and of democracy. The view of rationality as improvable goes better with critical rationalism than with classical rationalism. Is here a significant difference between Popper and Bartley? Can we rephrase Bartley's philosophy socially? I do not know. The critical attitude commends both a personal openness to criticism and an institutional setup that encourages criticism and is open to reform. The criticism of an institution, or of an institutionalized opinion, however, is not the same as the criticism of an individual's opinion: the one is a personal matter, the other is social. Valid criticism should always lead one to the search of alternatives, and reform is accepted not after criticism is voiced and endorsed but after a viable alternative is found and tested in instituted manners. What this means for Popper is clear enough: both democracy and science are open to reform. What does this mean for Bartley above and beyond what it means to Popper I cannot see. Perhaps this means that possibly democracy and/or science will be criticized in a new manner that will lead to a proposal of a totally new regime and/or research protocol and Bartley will be willing to test it. Whether this is so or not is hard to say: the discussion becomes too abstract here.

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