

1. Popper on the Problem of the Empirical Basis

Popper's confrontations with the problem of the empirical basis have been discussed extensively since it was first outlined (Neurath 1935/1983; Stegmüller 1954; Koertge 1978, 254; Brown 1979, 71-76; Newton-Smith 1981, 62-66; Shearmur 2006; Andersson 2016). There are some who remain convinced that a solution consistent with his methodological principles continues to be viable. Here, I reaffirm the position of the 1970s that Popper has not provided an adequate solution to the problem.

1.1: Popper's Problem of the Empirical Basis

Popper considers what he calls 'basic statements' as candidates for the empirical basis of science. Basic statements have a specified logical form; they must be singular, self-consistent, non-tautological, and refer to "publicly observable objects as the readings of pointers in a scientific laboratory" (Stokes and Shearmur 2016, 7). Basic statements, like all propositions, are subject to Fries' trilemma, according to which propositions can be supported in three ways: by reference to other propositions, to experience, or to some 'dogma.' If we use propositions, this leads to an infinite regress unless we posit some proposition which needs no justification (a dogma) or some non-propositional content which justifies a proposition (experience). This latter option, Popper claims, is incoherent. Experience cannot justify propositions since basic statements go beyond the 'Given' in experience: "The *universals* which appear in ["Here is a glass of water"] cannot be correlated with any specific sense-experience. (An 'immediate experience' is *only once* 'immediately given'; it is unique.) By the word 'glass', for example, we denote physical bodies which exhibit a certain *law-like behavior*... Universals cannot be reduced to classes of experience"

(76). Basic statements refer to universals rather than singular events confronted in experience and therefore cannot be justified given Popper's well-known criticisms of induction and probabilistic theories of confirmation (see Parusniková 2019). But while we may admit that basic statements cannot be justified by experience, can they be *falsified* by experience? Popper answer contains his solution to the problem of the empirical basis.

Popper claims that experience cannot justify basic statements, it only *psychologically motivates* them: "Experiences can motivate a decision, and hence an acceptance or a rejection of a statement, but a basic statement cannot be justified by them—no more than by thumping the table" (87-88). That experience, as with any other feature of our psychology, is irrelevant to the logic of science is not an anathema in Popper's thinking, but central to his methodology throughout its twists and turns. It springs from his dissertation, *Zur Methodenfrage der Denkpsychologie* (Popper 1928), which had a lasting (though unspoken) influence on his methodology (ter Hark 1993; Wetterson 2005; Sturm 2012). Here, Popper argues that the method of conjectures and refutations, to use his later parlance, parallels Karl and Charlotte Bühler's and Otto Selz' psychology, where the mind is composed of multiple integrated, but irreducible, aspects: subjective experience, meaningful behavior, and the "objective mind" (Sturm 2012, 464; see also Popper 1968a, 1978). The latter, Popper argues, is where critical thinking resides and remains independent from experience or behavior. As such, in logic and psychology, subjective mental states do not relate to critical thinking. This forms the backbone of his anti-psychologism propounded in *Logic* where a "subjective experience, or a feeling of conviction, can never justify a scientific statement, and that within science it can play no part except that of an object of an empirical (as psychological) inquiry. No matter how intense a feeling of conviction it may be, it can never justify a statement" (Popper 1959/2002, 24; see also appendix x).

Popper provides numerous reasons for anti-psychologism throughout his career. First, the objectivity of propositions derives from being intersubjectively testable. Subjective experiential imprints, by definition, are not intersubjectively available. Second, psychologism, Popper thinks, is inconsistent with the truth that “a theory may be true even if no one believes it, and even though we have no reason to think that it is true; and another theory may be false even though we have comparatively good reasons for accepting it” (Popper 1963/2014, 305). Similarly, avoiding psychologism is necessary for retaining his view that “even if we hit upon a true theory, we shall as a rule be merely guessing, and it may well be impossible for us to know that it is true” (ibid). Finally, Popper thinks that psychologism, within the social sciences, contains methodological flaws (Popper 1968b; 1982). From this, it should be clear how deeply rooted Popper’s anti-psychologism is to his larger philosophical project (see also Lakatos 1978, 112-116).

Popper’s anti-psychologism is not simply about the relationship between experience and propositions. More accurately, Popper submits that experience cannot justify the *acceptance of* a proposition. For a proposition to be a *test*, rather than one that merely contradicts or is consistent with other propositions, it must be accepted: “If we do not... accept some basic statement or other, then the test will have led nowhere” (Popper 1959/2002, 87). A test, for Popper, is a contradiction between an *accepted* basic statement and a theory:

Thus the basic statements play two different roles. On the one hand, we have used all of the logically possible basic statements in order to obtain with its help the logical characterization for which we were looking—that of the form of empirical statements. On the other hand, the accepted basic statements are the basis for the corroboration of hypotheses. If accepted basic statements contradict a theory, then we take them as

providing sufficient grounds for its falsification only if they corroborate a falsifying hypothesis at the same time (67).

What ‘acceptance’ amounts to, ontologically speaking, Popper never clarifies. Since acceptance is rational, it must be objective – it cannot be a mental state like belief.¹ The brightest prospect for defining acceptance in Popperian terms, I think, comes in *Objective Knowledge*:

What may be called the second world - the world of the mind - becomes, on the human level, more and more the link between the first [physical] and the third world [composed of arguments, problems, values, propositions]: all our actions in the first world are influenced by our second-world grasp of the third world. This is why it is impossible to understand the human mind and the human self without understanding the third world... and why it is impossible to interpret either the third world as a mere expression of the second, or the second as the mere reflection of the third (Popper 1972, 148-9).

According to Popper, a part of the mind can “grasp” objective relations (Frege’s ‘objective thought contents’) and influence behavior and, thereby, impact practical decision making (see Popper 1963/2014, 51-57). He elaborates that the “human mind can see a physical body in the literal sense of ‘see’ in which the eye participates in the process. I can also ‘see’ or ‘grasp’ an arithmetical or geometrical object; But although in this sense ‘see’ or ‘grasp’ is used in a metaphorical way, it nevertheless denotes a real relationship between the mind and its intelligible object, the arithmetical or geometrical object; and the relationship is closely analogous to ‘seeing’ in the literal sense” (Popper 1972, 155). I suggest we read ‘acceptance’ as akin to ‘grasping’; a state of mind containing objective knowledge. It can be evaluated as correct or incorrect insofar as it stands in

¹ For a helpful discussion on this point, from a quasi-orthogonal perspective, see Cohen (1992).

the right relations with the ‘third world’ of valid arguments.² “In so far as it expresses a subjective or psychological state or in so far as grasping or understanding language involves a change in our subjective state, it belongs to the second world. And in so far as language contains information, in so far as it says or states or describes anything or conveys any meaning or any significant message which may entail another, or agree or clash with another, it belongs to the third world” (157). Acceptance, on this picture, provides the link between subjective minds, which causally impact behavior, and the objective third world.

Psychological inclinations, in contrast to acceptance, are mere facts about features of individual cognitive architectures. This has been put clearly, elsewhere, by Davidson:

We experiment and observe, but this is not “comparing” in any but a metaphorical sense, for our experimentation bears no epistemological fruit except as it causes us to add, cling to, or abandon our beliefs. This causal relation cannot be a relation of confirmation or disconfirmation, since the cause belief is just an event in the world or in our sensory apparatus. Nor can such events be considered themselves to be evidence, unless, of course, they cause us to believe something and then, it is the belief that is properly called evidence, not the event (Davidson 1986, 331).

Experience can *cause* acceptance, but this is not the same as logical support. Many phenomena cause acceptance: propaganda, illusions, psychoactive drugs, and so on. To say that experience has a logical relation to accepted propositions would be committing a category mistake. Otherwise, Popper claims, we would be committed to absurd claims like: “In this chain of inferences today, I

² Currie (1978) argues that Popper cannot avail himself of this evaluation since, unlike Plato, the Third World includes *mistaken* arguments as well.

experienced an acute feeling of conviction” (Popper 1959/2002, 80). For Popper, there is no rational procedure to follow from experience to accepting basic statements.

Regarding Fries’ trilemma, Popper agrees with Fries’ view that “statements can be justified only by statements” (75).³ To avoid the infinite regress, Popper concludes that the “basic statements at which we stop, which we decide to accept as satisfactory, and as sufficiently tested, have admittedly the character of *dogmas*, but only in so far as we desist from justifying them by further arguments (or by further tests). But this kind of dogmatism is innocuous since, should the need arise, these statements can easily be tested further” (87). Popper admits that science has no basis. But at a given stage of inquiry, we require *some* basis to avoid relativism. Accordingly, we tentatively accept some basic statements as ‘dogmas’ that can go on being tested *ad infinitum*. This leads to the following claim:

From a logical point of view, the testing of a theory depends upon basic statements whose acceptance or rejection, in its turn, depends upon our decisions. Thus it is decisions which settle the fate of theories. To this extent my answer to the question, ‘how do we select a theory?’ resembles that given by the conventionalist; and like him I say that this choice is in part determined by considerations of utility. But in spite of this, there is a vast difference between my views and his. For I hold that what characterizes the empirical method is just this: that the convention or decision does not immediately determine our acceptance of

³ Popper contends that Fries uses psychologism to escape the trilemma – but this is incorrect. For Fries’, we can use critical introspection to discover, but not *prove*, innate a priori forms of intuition. “One cannot ‘prove’ an a priori form by referring it to something prior; one can only discover and describe it. That is, in the process of regressive analysis from actual knowledge to the innate principles of knowledge, one can only point out what principles do in fact emerge at the end of the analysis. One can never justify or prove these principles” (Leary 1982, 229). As such, Fries’ does not provide a ‘foundation’ at which critical reflection stops, *pace* Popper, but a method for discovering fallible claims about a priori forms of inner sense. See Floridi (1993, 222-225) for a helpful discussion.

universal statements but that, on the contrary, it enters into our acceptance of the singular statements—that is, the basic statements (91).

The basic statements we tentatively accept are acceptable by convention.⁴ This is Popper's solution to the problem of the empirical basis in *Logic of Scientific Discovery*.

1.2: The Arbitrariness Objection to Popper's Solution

Some commentators have been unsatisfied by Popper's purported solution. Ayer expounds the objection in the following way:

If this conclusion is to be taken literally, there no longer appears to be any good reason why basic statements should be required to refer to observable events. The principle which underlay this requirement was that empirical statements had to be testable by observation. But if observation can only motivate but never justify the acceptance of any statement, this principle becomes entirely arbitrary. One might have equally strong motives for accepting statements which did not refer to anything observable. Indeed, if our experiences supply us with no better ground for accepting any statements than a blow on the table, it is not clear what sense can be attached to speaking of observation as a test. For Popper it is enough that other empirical statements should stand in certain logical relations to basic statements. But what is this to the purpose if basic statements themselves are not empirically justifiable? (Ayer 1974, 687).

In the absence of methodological norms connecting experience with accepting basic statements, experience is irrelevant for acceptance except insofar as it happens to cause some people to accept

⁴ To be clear, for Popper, a 'convention' refers to the *choice* of accepting a proposition. This is distinct from other uses of 'convention' which denote propositions that cannot be tested (DiSalle 2002).

particular statements. This makes it arbitrary, from an empirical point of view, whether we accept a basic statement. As O'Hear puts it, if we can accept basic statements without empirical constraints on the conventions by which we do so, then "it is hard to see why we should ever be satisfied even momentarily to rest science upon them" (O'Hear 1980, 75). We *could* accept basic statements because of experience, but this choice is not determined by methodological dicta; anyone who chooses the opposite cannot be rationally criticized. This makes it difficult to see how Popper's solution is truly an advance over Neurath's which allows us to "'delete' a [basic statement] if it is inconvenient" (Popper 1959/2002, 97).⁵ This has been echoed by Currie:

But if Popper's view of the relation between experience and the acceptance and rejection of basic statements is that the relation is wholly causal (and that is what he says) the following is a consequence of his view... The question of whether it is rational to accept *e* and hence to reject *T* must, on Popper's view, be independent of any questions about what experiences anybody has had. Now the only way in which we can become aware of the outcome of an experiment is by having certain experiences... But then we have the conclusion that whether it is reasonable to accept *e* and reject *T* is independent of any experiments that may be conducted (Currie 1989, 425).

By leaving the acceptance of basic statements in the hands of unconstrained conventions, Popper cannot show how to rationally remove basic statements. As such, we can choose any arbitrary

⁵ See Cat (1995) for an informative overview of the Neurath-Popper debate on basic statements. Cat shows, convincingly I believe, that Popper was wrong to characterise Neurath's position as an instance of psychologism (see Neurath 1935/1983, 128 for his original response). Cat's claim that Neurath can avoid the arbitrariness objection is interesting but incomplete. Cat claims that Neurath can provide a *pragmatic* means of avoiding arbitrariness: "For Neurath there was one ultimate type of condition always involved in determining the choice of a protocol statement as well as of a scientific theory... However, this type of condition cannot be formalized as part of a general logic of scientific testing; it is a pragmatic condition... Neurath referred to this condition vaguely as 'life' or 'the extra logical factors'" (Cat 1995, 230). This would be a non sequitur for Popper, who is referring to *logical* arbitrariness (see Popper 1963/2014, 57). An argument, which cannot be made here, about the properly meta-methodological stance on what kind of arbitrariness is dangerous is necessary to settle this. For more details on Neurath's stance, see Okruhlik (2004).

basis we please. As Papineau writes, if “we have in mind that we will go on ‘accepting’ a theory as long as we do not reject it, then it is scarcely surprising that the impossibility of conclusive falsification seems to threaten us with an untrammelled freedom for anybody to ‘accept’ what they like” (Papineau 1989, 434). The relativism Popper abhors appears unavoidable without a clear means of choosing between possible bases.⁶ While scientists can connect their experience with acceptance, they can do so differently according to their psychological inclinations. This is relativism, pure and simple.

1.3: Responses to the Arbitrariness Objection

Popper responds to this worry by insisting that he had been misunderstood. He claims to recapitulate his old view as claiming the ““conventional” or “decisional” element in our acceptance or rejection of a proposition involves in general no element of arbitrariness at all. Our experiences are not only motives for accepting or rejecting an observational statement, but *inconclusive reasons*. They are reasons because of the generally reliable character of our observations; they are inconclusive because of our fallibility” (Popper 1974, 1114). This, Popper claims, allows him to retain his fallibilism about experience and anti-psychologism. However, as Susan Haack correctly observes, this concession is fatal to Popper’s anti-psychologism:

It is hard to interpret this otherwise than as abandoning the radical position adopted in *The Logic of Scientific Discovery*: Popper apparently admits that experiences can after all constitute reasons for, not just causes of, the acceptance of basic statements, and that there can be reasons which fall short of deductive conclusiveness. Perhaps Popper fails to appreciate how radical a concession he has made because of the shifting way he uses the

⁶ A similar point has been raised by Salmon (1968, 95-7). See Watkins (1968, 63-65) and Lakatos (1968, 189) for responses which divorce ‘practical rationality’ from ‘theoretical rationality.’

term ‘motivated’: if ‘motivated’ means ‘causally prompted’ and is contrasted with ‘justified’, then it would be true that he had never suggested that the decision to accept a basic statement is unmotivated, but reiteration of this point would constitute no reply to Ayer’s objection; if, on the other hand, it is used equivalently to ‘justified’ or ‘supported by reasons’, then it constitutes a capitulation to Ayer’s objection, and is not a reiteration of, but flatly inconsistent with, Popper’s earlier position (Haack 1991, 373).

Unwittingly, Popper has discarded a central feature of his methodology by claiming that experience can justify the acceptance basic statements. “Inconclusive reasons” are distinct from “psychological motivations” – the former provide corrigible grounds for acceptance while the latter are subjective and categorically irrelevant. On an alternative reading, where ‘psychological motivations’ means ‘inconclusive reasons’, Popper simply has not given a reply to the objection.

Haack’s criticism leaves open the possibility that Popper changed his mind. Superficially, at least, this seems possible. Beginning in 1968, Popper elaborates an evolutionary approach to epistemology. Does this approach afford him with novel resources to solve the problem of the empirical basis? Given the well-noted ambiguities with Popper’s stance, this is a difficult question to address. Regardless, the prospects on popular interpretations of Popper’s evolutionary epistemology seem dim. On one reading, Popper is providing an *analogy* in evolution by natural selection to parallel his earlier view of conjectures and refutations: “The reading which predominates the philosophical literature is that Popper’s evolutionary epistemology is based on an analogy between organic evolution and the growth of scientific knowledge” (Baigrie 1988, 357).⁷ If this is the case, then Popper hasn’t changed his mind, but was merely re-packaging his previous thought. On a second reading, Popper is *generalizing* his earlier view from scientific

⁷ See Nanay (2011) for an updated defense of this interpretation.

testing to the ‘situational logic’ facing all organic life (Bartley 1982a). Again, on this interpretation, Popper has not *changed* his views, but increased their scope. On a differing interpretation, Popper is providing a *biological justification* for his falsificationism:

Popper’s references to Darwin are designed to lend credence to his generalized methodological thesis that all learning processes, even organic evolution, consist in trial-and-error elimination. Darwin is invoked merely as grist for the Popperian mill, rather than as an opportunity for the development of Popper’s methodology. The point is that *if an* analogy is invoked by Popper between natural selection and science, it is advanced solely *as justification* for Popper’s generalized methodology of trial-and-error elimination. This thesis explains why Popper’s forays into biology have made no impact on his theory of science (Baigrie 1988, 360-61).

This leads Popper into a dilemma. Either Popper has not changed his view, and simply found new evidence to support it or he has *naturalized* scientific rationality where its goal is describing how organisms gain knowledge. This second option would be a significant change of mind. However, this leaves Popper’s view normatively bankrupt. “Although Popper’s notion of ‘trial-and-error elimination’ is similar to the Darwinian idea of natural selection, Popper’s notion is normative: it specifies a standard of rationality which is held by Popper to demarcate genuine science from pseudoscience (i.e., good science from bad science) at all times and in all places. Moreover, Popper is well aware that, by and large, the history of science does not conform to his normative methodology” (361).⁸ This abandonment does not seem to be intended or accepted by Popper, who continues to insist on the normative character of scientific rationality throughout his later career

⁸ See also Baigrie (1989).

(Koertge 2009). Thus, on the popular interpretations of Popper's evolutionary epistemology, he cannot provide a satisfying answer the problem of the empirical basis.

More recently, some sympathizers have argued that Popper solved the problem of the empirical basis without abandoning anti-psychologism. The most popular argument, first defended by David Miller,⁹ and recently by Andersson (2006, 2016), claims that basic statements are to be accepted if they are unfalsified and well-corroborated. Relativism, at least except amongst the set of unfalsified/well-corroborated propositions, is avoided. This understanding of Popper is amply supported by textual evidence:¹⁰

degree of corroboration it is nothing but a measure of the degree to which a hypothesis *h* has been tested, and of the degree to which it has stood up to tests. It must not be interpreted, therefore, as a degree of the rationality of our belief in the truth of *h*... Rather, it is a measure of the rationality of *accepting*, tentatively, a problematic guess, knowing that it is a guess, but one which has been submitted to searching examination (Popper 1958, 302).

Assume that we have deliberately made it our task to live in this unknown world of ours; to adjust ourselves to it as well as we can; to take advantage of the opportunities we can find in it; and to explain it, if possible (we need not assume that it is), and as far as possible, with the help of laws and explanatory theories. If we have made this our task, then there is no more rational procedure than the method of trial and error—of conjecture and refutation:

⁹ “According to falsificationism, test statements are used not for conclusive refutation... but for the classification of hypotheses as false. In consequence, the important thing about the test statements we decide to accept—that is, classify as true—is that they be true. The only complaint that can be properly directed against a test statement is that it is false” (Miller 1994, 29). Miller also offers a second response which admonishes us to *consider* experience before accepting a basic statement; we should “look before we leap” (27). However, as Andersson argues, this admonishment is groundless within Popper's framework (Andersson 2016, 134).

¹⁰ In Popper (1956), he repeatedly lumps together corroboration and acceptability and treats them as synonyms. See Levi (1963) for discussion.

of boldly proposing theories; of trying our best to show that these are erroneous; and of accepting them tentatively if our critical efforts are unsuccessful (Popper 1963, 51).

The target of Ayer et al. appears to be the Popper of *Logic of Discovery*, since this criterion of acceptance appears in the 1950s. But this position, even if it reflects a change of mind, does not address the criticism at all. The objection, to reiterate, is that experience can only psychologically motivate the acceptance of a statement making experience methodologically irrelevant to theory testing. *This includes falsifiers*. To make the later-Popper view tenable, they must admit that experience can serve as a *test*. Andersson, for example, passes over this crucial point when he writes that “the general hypothesis ‘All swans are white’ has the potential falsifier: ‘On the 16th of May, 1934, a swan which was not white stood between 10 and 11 o’clock in the morning in front of the statue of Empress Elizabeth in the Volksgarten in Vienna’... *If such a swan actually is observed, then the potential falsifier is transformed into an actual falsifier*” (Andersson 2016, emphasis added, 129). This ‘transformation’ is done only by choice, for Popper. There is no reason the potential falsifier *must become* an actual falsifier after observing a non-white swan. The restriction to accept non-falsified, well-corroborated statements only makes sense once we’ve decided to connect the acceptance of a statement to experience – otherwise we have no experiential grounds for falsifications or corroborations. Miller and Andersson have not addressed the criticism: if a basic statement is accepted by convention, why should experience play *any* role in its acceptance? Why *must* this transformation take place?

The usual response at this point is to assert that these critics are presupposing that basic statements must be *justified*; a premise Popper rejects (Miller 1994, 71; Andersson 2016, 124). This is justificationism, or the view that propositions “must be justified by an appeal to an authority of some kind, generally the source of the belief in question, and this justification makes the belief

either rational, or if not rational at least valid for the person who holds it” (Champion 2013, 216). Popper rejects justificationism; all statements are guesses, not justified claims. This view is well-summarized by Feyerabend: “theories cannot be justified, and they need not be justified. The procedure of science is not to praise the good, but to eliminate what is bad, or comparatively inferior. The ‘fundamental difference between [this] approach and [justificationism] is that [it] lays stress on negative arguments, such as negative instances or counter-examples, refutations and attempted refutations – in short, criticism –’ while the justificationist lays stress on positive arguments, positive instances, and the like” (Feyerabend 1974, 495). Moreover,

The theory that survives the debate is of course not free from fault. It dominates the field not because it has been proved, or because it is highly probable, or because it possesses some other desirable feature such as consistency. Even the best scientific theory is usually in a pretty sorry state. What is decisive is that its faults are smaller than the faults of the rivals - for the time being. Thus ‘the beliefs which we have most warrant for have no safeguard to rest on but a standing invitation to the whole world to prove them unfounded’, that is, to find reasons for rejecting them (496).¹¹

Miller and Andersson claim that the problem of the empirical basis is only a problem for justificationists who seek to *establish* statements as genuine knowledge rather than acceptance of the best of a (possible) bad lot. On Popper’s account, we can accept false statements. But this does not help Popper in the slightest since falsification, for Popper, requires pitting statement against each other. For any of those statements to be *empirical*, it must be connected with experience which still has no rules. Justificationists and Popper’s falsificationism, therefore, suffer from

¹¹ The quotes within these quotes are from *Objective Knowledge*.

different sides of the same problem. For justificationists, it is how does experience justify a statement whereas for Popper it is how does experience relate to accepting falsifying statements. If we can conjecture whatever we want without regard to experience, then Popper's critics are right to claim that scientific theories are *arbitrary conventions* with respect to experience.

Another defense of Popper's resolution of the problem of the empirical basis comes from Alan Musgrave. Musgrave recognizes the importance of solving the problem of the empirical basis: "[I]t cannot be that the *only* good reason for believing P is that you have inferred it from another belief R, for which you have good reason. That is *logomania*, the view that only reason or reasoning provides a good reason for believing anything. Logomania leads to infinite regress, as sceptics long ago pointed out. All inferential beliefs... must rest on non-inferential beliefs. But logomania entails that non-inferential beliefs are unreasonable – from which follows that all beliefs are unreasonable" (Musgrave 2004, 19). Furthermore, Musgrave agrees with Popper that only propositions, not experience, can provide logical support: "The content of a belief, what is believed, is a statement or a proposition. Logic tells us what reasons for statements or propositions are. A conclusive reason for a proposition is another proposition that deductively entails it... But perceptual experiences are not propositions" (Musgrave 2009, 5-6). Musgrave, like Miller and Andersson, accuses Popper's critics of tacitly assuming justificationism:

Susan Haack's discussion of Popper's views is also vitiated by her tacit acceptance of justificationism. She quotes Popper's statement that "a basic statement cannot be *justified* by [experiences] – no more than by thumping the table". She turns this immediately into "the startling negative thesis that experience cannot justify *the acceptance of* basic statements" (1993, p. 98; my italics). Notice Haack's transition from "experience cannot justify a basic statement" to "experience cannot justify the acceptance of a basic

statement”. It is possible to accept the former and reject the latter, provided you also reject justificationism, the idea that you can only justify accepting a statement by justifying that statement itself. Which is precisely what Popper, as I interpret him, does (9).

On Musgrave’s reading, experience can justify *acceptance* but not the *proposition* (i.e., the content of the proposition). Acceptance, Musgrave says, is “an act or action that a person performs” (10) rather than a statement. Acceptance, therefore, cannot be the conclusion of an argument as Haack insinuates. Musgrave is clear on this point: “A valid argument is no reason for an action” (ibid). But this means that acceptance, by definition, cannot be rational. But without a rational notion of acceptance, we have no notion of a test, let alone a reason to accept the neuron doctrine or reject Organonomy. As Watkins put it: “All we are getting, under this... interpretation, is a lengthening chain of derivations: no *tests* are being made” (Watkins 1984, 252-53). We could merely say that “There are angular unconformities” contradicts the global flood hypothesis rather than that the global flood hypothesis is *refuted* or even *problematized* by the proposition. Popper’s falsificationism would turn out to be, as Feyerabend once accused Lakatos’ methodology as being, an “anarchism in disguise” (Feyerabend 1970a, 77). Musgrave may follow Popper and think that norms are also propositions which then, when conjoined with descriptive propositions, can conclude with reasons for action. But still, which norms and descriptive premises are we to accept? Musgrave’s Popper leaves acceptance as another causal event that may or may not be connected with experience – there remains no rational way to connect the two. This brings us no closer to being able to condemn some actions and praise others – which was one of the driving purposes of Popper’s philosophy.