**Epistemological Anarchism Meets Epistemic Voluntarism:**

**Feyerabend's *Against Method* and van Fraassen's *The Empirical Stance***

<span style="color:red">**FORTHCOMING**</span>

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*§1. Introduction*

In this paper I shall compare and contrast central themes of Paul Feyerabend's best-known work, *Against Method* (1975, subsequently "*AM*") with pivotal ideas of Bas van Fraassen's 2002 book, *The Empirical Stance* (subsequently "*ES*"). The comparison appears fruitful for two reasons: first, because van Fraassen is one of the few contemporary philosophers of science who continue to engage closely and charitably with Feyerabend's work; and, second, because van Fraassen disagrees with some of Feyerabend's central contentions. I do not here have the space to determine conclusively who of the two philosophers is right where they take different views on a given question; I shall be satisfied to clearly identify the issues and disputes that need further reflection.

The scope of this investigation is restricted primarily to *ES* and the first edition of *AM*. I look beyond these two books only where *ES*'s discussion of Feyerabend's views draws on texts other than *AM*, and where van Fraassen further develops important claims of *ES*. I have already elsewhere discussed Feyerabend's relativism in his later writings (Kusch 2016). Moreover, Feyerabend's and van Fraassen's respective oeuvres are of such breadth, depth, and development over time, that a full consideration of all of their important similarities and differences would require a book-length treatment.

Two ideas from *ES* will be crucial in what follows. The first idea is that many philosophical positions are best rendered not as "doctrines" but as "stances;" that is, as sets, systems or bundles of values, emotions, policies, preferences, and beliefs. (To avoid torturous repetition, I shall refer to sets of values, emotions, policies and preferences as "VEPPs".) The second idea is a form of epistemology van Fraassen calls "epistemic voluntarism." It is based on the rejection of two received views: that principles of rationality determine which philosophical positions and scientific paradigms we must adopt, and that epistemology is (akin to) a descriptive-explanatory (scientific) theory of cognition.

I shall first argue that Feyerabend's "epistemological anarchism" is best rendered as a stance rather than a dogma. Subsequently I shall explore similarities and differences between van Fraassen's epistemological voluntarism and Feyerabend's epistemological anarchism. I shall propose that Feyerabend's postition is more radical than van Fraassen's. In the process I shall also discuss the two philosophers' views on scientific revolutions, rationality, and relativism. My main interest in all this is to arrive at a better understanding of anarchism and epistemic relativism in the philosophy of science.

*§2. Stances and Dogmas in ES*

*ES* suggests that many philosophical positions are best understood as "stances," that is, as bundles of VEPPs, rather than as beliefs, theories or "dogmas" about the world. There are three main motivations behind this proposal. The first motivation is specific to empiricism. If we seek to capture the "core idea" of empiricism in the dogma (D) "experience is the one and only source of information" (*ES* 43), then it is difficult to explain how empiricists can reject their main rival, that is, metaphysics.

The difficulty is the result of three commitments "dogma-empiricists" (=empiricists$_D$) are ready to make. First, the dogma is meant to license an outright rejection of metaphysics, without any further, detailed argumentative give-or-take over the details of specific metaphysical proposals. Second, empiricists$_D$ hold that all admissible philosophical theses must be empirical hypotheses. And third, like all empiricists, so also empiricists$_D$ admire the ideal of empirical science according to which all empirical hypotheses must be rigorously tested by observation and experimentation. Unfortunately, these commitments do not cohere. If D is an empirical hypothesis, then so are statements contradicting D. Some of the latter are core doctrines of alternative philosophical positions, like metaphysics. But if these rival doctrines too are empirical hypotheses then they too deserve to be tested in the normal way of empirical science. In other words, these alternative doctrines cannot be ruled out on the sole the basis that they conflict with D.

For *ES* all this is reason enough to give up empiricism$_D$. van Fraassen's empiricism (=empiricism$_{vF}$) is defined not by a single dogma but by a set of VEPPs and beliefs. This gives the admiration for the ideal of empirical-scientific inquiry a new role in the opposition to metaphysics. Empiricism$_{vF}$ can rule out metaphysics immediately, and without entering into extended debate. This is because metaphysics does not emulate the conduct of empirical sci-

ence; it does not value empirical hypotheses; and it does not engage in the empirical testing of philosophical theses. We have here an incompatibility in VEPPs rather than an incompatibility in dogmas. But it still gives the empiricist$_{vF}$ a sufficient and immediate reason for rejecttion or rebellion.

Making VEPPs central to our understanding of empiricism naturally leads to the idea that many philosophical positions are "stances" rather than "dogmas." What characterizes empiricism$_{vF}$ is a …

> … rejection of explanation demands and dissatisfaction with and disvaluing of explanation by postulate … calling us back to experience, … rebellion against theory, ideals of epistemic rationality, … admiration for science, and the virtue they see in an idea of rationality that does not bar disagreement. … The attitudes that appear in these list are to some extent epistemic and to some extent evaluative, and they may well involve or require certain beliefs for their own coherence. But none are equatable with beliefs.  (*ES* 47)

van Fraassen's other two motivations for moving from dogmas to stances are not worked out in similar detail, and remain largely implicit in ES. The second can be put as follows. To attribute an "ism"—like empiricism or materialism—*as a stance rather than a dogma* is to make a claim about where one should locate the *core* or *essence* of the respective position. Do the advocates of the position foreground a claim or doctrine (about the world), and do they marshal their evidence and VEPPs as arguments for this doctrine? Or do the advocates put the emphasis on rebellion, admiration, and VEPPs, and treat stated credos as no more than rough glosses intended to point beyond themselves at the underlying epistemic and evaluative commitments?

The third motivation is van Fraassen's desire to find a common denominator for the numerous self-proclaimed empiricists in our tradition, from the Ancient Greek school of physiccians, the "*Empirici*," to the Vienna Circle and beyond. A short dogma like D does not suffice for this task. Invoking the rebellion against metaphysics (and related VEPPs) is much better able to identify a crucial commonality.

*§3. Epistemological Anarchism as a Stance*

Most interpreters and critics of *AM* have tried to sum up epistemological anarchism in a snappy dogma: *"anything goes"* (*AM* 28). This dogma is taken to be the central and only claim the epistemological anarchist makes about scientific work. With a 339-page book thus reduced to two words, it is then easy to demonstrate that *AM* is obviously not to be taken seriously (cf. Shaw 2017). After all, "anything goes" is absurd both as a descriptive and as a prescriptive statement. Clearly, in science as in life, *everything does not go* at every stage: some courses of action are downright silly or immoral; they involve the actor or deliberator in self-sabotage; or they are physically impossible to carry out. Given the obvious truth of this descriptive statement, "anything goes" cannot be a meaningful prescription either. Moreover, it is conceptually impossible to follow a rule that makes no distinctions. We are not dealing with a rule unless we are told what is to be done, or not to be done, under specific conditions.

It is striking how often "anything goes" is still used, by friends and foes of epistemic relativism alike, in this entirely negative way. *Anti-relativists* employ the formula to identify what they see relativism reducing to; *relativists* themselves find it useful as an *absurd and debilitating* foil from which to distinguish their allegedly more *benign* versions of the position.

Interpreting epistemological anarchism as a stance rather than a dogma is one—though perhaps not the only one—way of rendering AM with at least a modicum of interpretative charity. Taking our lead from van Fraassen's discussion of empiricism, the natural starting point is to recognize that anarchism too is primarily a *rebellion*. But anarchism rebels not against metaphysics but against all (primarily philosophical) measures seeking to restrict human freedom. In this vein, Feyerabend attacks attempts to regiment scientific work by tying it to a specific "logic," by restraining "imagination," by standardizing language, and by denying the input from "religion," "metaphysics," or "sense of humour" (*AM* 19). In philosophy the anarchist refuses to accept established philosophical dichotomies, for instance, reason versus anti-reason, or sense versus non-sense (*AM* 191).

AM also speaks of "the stultifying effect of 'the Laws of Reason'" (*AM* 20) or the attempts of "critical rationalism" to turn the scientist into "a miserable, unfriendly, self-righteous

mechanism without charm and humour" (*AM* 175). The "one thing" the anarchist always "opposes positively and absolutely" are …

> … universal standards, universal laws, universal ideas like "Truth," "Reason," "Justice," "Love" and the behaviour they bring along, though he does not deny that it is often good policy to act as if such laws (such standards, such ideas) existed, and as if he believed in them. (*AM* 189)

Turning from rebellion to commitments, epistemological anarchism is defined by the VEPPs of "humanitarianism" (*AM* 19), Millian "liberalism" (*AM* 23), and the ideal of the "mature citizen" (*AM* 309). The anarchist commits to "not hurt[ing] a fly—let alone a human being," to "taking things lightly," and to engaging in "joyful experiments" (*AM* 23). Above all else, she values the right and duty to go against established rules and restrictions whenever these strike her as hindering epistemic or social progress. "Anything goes" is a rough gloss on these VEPPs. In particular it expresses the policy of not accepting any *a priori* or in-principle restrictions on what is the right course of action in novel circumstances. This is underwritten by observations on the history of science. Even restricting ourselves to what we today regard as good science in the past and present, we find that this science is not only the product of reason, but also often of unreason; not only of proof but also often of propaganda; not only of methodological standards, but also of throwing such standards overboard.

Since epistemological anarchism does not have a "programme" beyond the just-mentioned commitments, its advocates are free to pick opposite sides on one and the same (scientific) issue. Feyerabend regards this idea of freedom as close kin to "Dadaism," quoting an art-historian's summary that "Dada … not only had no programme, [but] … was against all programmes" and that "to be a true Dadaist, one must also be anti-Dadaist" (*AM* 33, 189). The anarchist has "no everlasting loyalty to, and no everlasting aversion against, any institution or any ideology" (*AM* 189). Thus the seventeenth-century epistemological anarchist might defend either Bellarmine or Galileo, depending on whether she gives greater weight to the religious needs of "the common man" or to the opposition to "orthodox ideology" (*AM* 193).

The fact that epistemological anarchists can, and typically will, choose opposite sides of the same scientific issue is important for the existence of scientific "pluralism:" the coexistence of scientific theories that contradict one another. Indeed, *AM* is adamant that pluralism is ultimately underwritten by humanitarianism, the system of VEPPs at the heart of epistemological anarchism. Here Feyerabend repeatedly emphases his common cause with John Stuart Mill's *On Liberty* (AM 43, 53).

To sum up: *AM*'s epistemological anarchism is better taken as a stance (of VEPPs) than as a dogma (like "anything goes"). In this respect at least, it pays to read *AM* through the perspectives offered by *ES*. *AM* is strengthened when interpreted as a stance; and the *ES*'s theorizing about philosophical positions is confirmed, at least to some extent, by the fact that a philosophical position other than empiricism can fruitfully be rendered as a stance. At the same time, the proximity between *ES* and *AM* on this point also raises an important follow-up question: how does epistemological anarchism relate to van Fraassen's epistemic voluntarism? I next turn to addressing this question.

*§4. Epistemic Voluntarism and Scientific Revolutions in ES*

Epistemic voluntarism is based on two central claims:

(i)   that principles of rationality underdetermine our choice of philosophical stances or scientific paradigms; and
(ii)  that a theory of epistemic rationality must not be "objectifying," that is, it must not be a descriptive-explanatory theory of cognition.

By "principles of rationality" van Fraassen means first and foremost deductive logic, the theory of probability, and the practical syllogism. As long as we stick to these principles we avoid inconsistency and incoherence; we avoid reasoning in ways that—even by our own lights—results in "self-sabotage:" a reasoning that prevents us from reaching our goals (2002: 88, 224).

*ES* defends (i) by drawing on an idea by William James (1956). According to James, we have two central goals in our epistemic life: to believe as many truths as possible, and to believe as few falsehoods as possible. Since we cannot maximize both goals at once, each one of us

implicitly or explicitly fixes their respective "risk-quotients." Each one of us has to choose which of the two goals is more important (either in general or in specific contexts). Deductive logic and the theory of probability do not tell us how to make this choice. Our choice must therefore be based upon VEPPs (2002: 87). Which brings us back to the stances, but with a new twist. Stances now turn out to be important not just as renderings of some philosophical positions; they also turn out to be significant in how we organize our epistemic practices.

*ES* argues for (ii) by revisiting the issue of scientific revolutions. van Fraassen agrees with Kuhn's and Feyerabend's thought that, from the perspective of the pre-revolutionary old paradigm, the post-revolutionary new paradigm seems "literally absurd, incoherent, obviously false, or worse—meaningless, unintelligible." And yet, van Fraassen claims to deviate from Feyerabend by allowing for a different perspective *after* the revolution. From the post-revolution perspective, the pre-revolution viewpoint can be understood as a partial truth (2002: 71). For instance, it follows from Einstein's *Special Theory of Relativity* that Newton's *Laws of Motion* are true for entities whose velocity is small when compared with the speed of light (2002: 115) Moreover, van Fraassen thinks that scientific revolutions often result in the discovery of *ambiguities* in the old paradigm. Thus Newtonians did not realize that mass could be characterized as "proper mass," "gravitational mass," and "inertial mass." And they therefore regarded as absurd the notion that mass varies with velocity (2002: 113).

According to ES, the litmus-test for every epistemology is whether it is able to preserve the rationality of scientific revolutions while acknowledging the element of "conversion" at their very heart. Objectifying epistemologies that describe and explain how our cognitive apparatus fits into the world, do not pass muster. They fail the litmus-test since they invariably are enmeshed with the scientific theories of their day. The objectifying epistemology *en vogue* during the reign of the old paradigm licenses the old paradigm's epistemic ways. It therefore cannot but reject as irrational the epistemic practices of the new paradigm (2002: 81).

Epistemic voluntarism does better for three reasons. First, it is prescriptive-evaluative rather than descriptive-explanatory (2002: 82). This cuts the ties to prevalent scientific paradigms. Second, epistemic voluntarism is minimalist (cf. (i) above). And third, epistemic voluntarism gives emotion—or similar "impulses"—a legitimate place in our epistemic life. Points two

and three connect epistemic voluntarism to the stance-idea. van Fraassen's thought seems to be that scientific paradigms are, or include, one or more scientific stances.

*ES*'s example for how emotions can change one's epistemic options comes from Franz Kafka's short story *Metamorphosis*. One morning, Gregor, the son of the Samsa-family, wakes up in the shape of a gigantic beetle, unable to communicate with humans. Initially his parents and sister Grete think of the beetle as their son or brother. Alas, this rendering of the situation makes their life unbearable. There just is no way to maintain a normal family life when one family member is an insect. It is only when Grete eventually has an emotional breakdown that the parents find a way forward: they take the beetle for nothing but a beetle—and kill it (2002: 106). Grete's emotion enables the family to recognize the situation more correctly, at least when judged retrospectively.

Going beyond van Fraassen's own words, we can use *Metamorphosis* also to illustrate another central claim of *ES*, to wit, the claim that scientific revolutions involve a re-interpretation of central rules guiding scientific work (2002: Ch. 4). The Samsa-family, throughout the whole episode, operates with the rule *Protect the members of your family*. Initially this rule is used in a "conservative way:" Gregor and the beetle are taken to be the same person. And thus Gregor-the-beetle remains within the domain of the rule. After Grete's breakdown however, the rule is interpreted in a "revolutionary way:" it is understood as legitimating the killing of the beetle. The family now thinks that the beetle has destroyed and replaced Gregor. Killing the insect secures Grete's well-being and takes revenge for Gregor. The change in the interpretation of the rule also involves the identification of an ambiguity: "family member" as "close relative that is human in outward appearance throughout their life," and "family member" as "close relative regardless of their physical appearance." The decision to kill the beetle meant that the parents and Grete rejected the second meaning and came to insist on the first.

One central rule in empirical science is "*Sola experiential.*" Defenders of the old paradigm use this rule in a conservative-defensive way. They insist that their paradigm is fully based upon experience (observation and experiment) and free of idle speculation. The proponents of the new paradigm instead accuse the old paradigm of violating *Sola experientia*. They use *Sola experiential* in a revolutionary way. For instance, Newton's critics identified his assumptions concerning absolute time and space as metaphysical baggage not licensed by experi-

ence. The upshot is that scientific revolutionaries do not simply throw scientific rationality overboard. But they interpret it in radically new ways. And it needs an emotion-like "impulse" to set off such developments. (2002: Ch. 4)

The above is of course no more than a thumbnail-sketch of van Fraassen's epistemic voluntarism, but it is good enough for present purposes. To sum up: epistemic voluntarism emphasizes the limited role of principles of rationality; distinguishes sharply between such principles and VEPPs; stresses the importance of VEPPs; and opposes objectifying epistemology. And van Fraassen regards epistemic voluntarism as the key to understanding the rational core of scientific revolutions.

*§5. Epistemic Voluntarism and Scientific Revolutions in AM*

We can now return to the interpretation of AM. I shall discuss Feyerabend's position vis-à-vis the central ingredients of epistemic voluntarism.

*(i) Objectifying or Voluntaristic Epistemology?*

*ES*'s main objection to objectifying epistemology is that the latter is unable to account for the rationality of scientific revolutions. An objectifying epistemology is always closely intertwined with contemporaneous paradigms, and thus unable to conceive of their replacement as anything but irrational and absurd.  How does AM stand vis-à-vis this argument?

To begin with, *AM* offers historical evidence for the claim that specific forms of epistemology are inseparable from contemporaneous paradigms, cosmologies or worldviews. This is a central point of *AM*'s detailed interpretation of Galileo's controversy with the Aristotelians:

> Astronomy, physics, psychology, *epistemology*—all these disciplines collaborate in the Aristotelian philosophy to create a system that is coherent, rational and in agreement with the results of observation as can be seen from an examination of Aristotelian philo-sophy in the form in which it was developed by some mediaeval philosophers. (*AM* 149; emphasis added)

Central in the Aristotelian epistemology-*cum*-psychology was a "naïve realism with respect to motion," that is, the view according to which "apparent motion is identical with real (absolute) motion …" and "absolute motion is always noticed …" (*AM* 75, 90) In challenging naïve realism—for instance by introducing the telescope into astronomy—Galileo invented a "new kind of experience." Galileo had to persuade his contemporaries that the motion of the Earth was real even though it could not be observed. He tried to do so by reminding his readers of the fact that in some contexts they already accepted the "relativity of motion:" the motion of a painter's brush on a boat travelling through the Mediterranean could be identified relative to the canvas mounted on the easel, or relative to the surface of the Earth. By analogy Galileo's readers were meant to allow that a stone falling from a tower likewise made at least three movements: towards the surface of the Earth, with the Earth around the Sun, and with the rotating Earth (*AM* 86): "It is this change which underlies the transition from the Aristotelian point of view to the epistemology of modern science." (*AM* 89)

Although Feyerabend agrees with van Fraassen that the forms of epistemology of a given time period T are typically closely intertwined with the scientific paradigms prevalent during T, there nevertheless is also an important difference between the two men regarding this issue. Other than van Fraassen, Feyerabend does not single out *one particular form* of epistemology—namely *objectifying* epistemology—as being especially prone to be so intertwined. The position of AM seems to be that *all* forms of epistemology may end up becoming obsolete when paradigms or worldviews change.

It is easy to see the plausibility of this view. In fact, one of van Fraassen's own analogies can help to make this case. *ES* suggests that epistemic voluntarism relates to objectifying epistemology as Carl von Clausewitz's *On War* (1832) relates to John Keegan's *The Face of Battle* (1976). The first offers general strategies for the conduct of any war; the second aims to capture, amongst other things, individual soldiers' experiences on the battlefield (at Agincourt, Waterloo, and the Somme) (*ES* 82). van Fraassen's thought seems to be that whereas the descriptions offered in *The Face of Battle* no longer apply to soldiers' experiences today, Clausewitz's strategies still work. No doubt there is some truth in this suggestion. And yet, there is also room for an objection. The development of warfare since the early nineteenth century—think of guerrilla warfare, popular uprisings, terrorism, nuclear, chemical and biological weapons—has made many pillars of Clausewitz's Hegelian philosophy or war obsolete (Wikipedia 2018). *Mutatis mutandis* for non-objectifying epistemologies: the mere

fact that they do not involve many specific, and historically changing, psychological assumptions does not protect them from becoming out-dated. Specific conceptions of coherence or the importance given to selected epistemic values might favour one paradigm P1 over another paradigm P2. But then, when P1 is replaced by P2, so might these conceptions of coherence and the importance given to certain epistemic values (cf. Kuhn 1977, and see below).

The last paragraph suggests that perhaps Feyerabend is right not to motivate a distinction between objectifying and non-objectifying epistemologies with reference to how closely they are intertwined with scientific theories. At the same time it is worth emphasizing however, that we find two kinds of epistemology in *AM* as well: epistemological anarchism on the one hand, and all forms of "rationalist" epistemologies on the other hand. The latter hope to codify (scientific) rationality in a fixed set of rules or norms. Rationalists thereby expect to explain, predict, evaluate and prescribe scientists' choices. Karl Popper's "critical rationalism" is of course Feyerabend's paradigm case of, and preferred whipping boy for, this form of epistemology. It is the main thesis of AM that all such epistemologies fail. Indeed, as Feyerabend writes concerning the Copernican hypothesis: it "runs counter to almost every methodological rule one might care to think of today" (*AM* 67).

Anarchist epistemology does not aim for a rigid system of methodological norms. Mindful of the failure of rationalist epistemology, anarchist epistemology is content to investigate successful scientific actors like Galileo, and to learn from their rhetoric and propaganda as much as from their scientific reasoning (as traditionally understood):

> … Galileo … exhibited a style, a sense of humour, an elasticity and elegance, and an awareness of the valuable weaknesses of human thinking, which has never been equalled … Here is an almost inexhaustible source of material for methodological speculation and, much more importantly, for the recovery of those features of knowledge which not only inform, but which also delight us. (*AM* 161)

Ultimately, the commitment of anarchist epistemology is less to specific ideals of knowledge or science, and more to the aforementioned political or ethical ideals of humanitarianism and liberalism.

*(ii) Principles of Rationality and VEPPs*

van Fraassen's epistemic voluntarism is committed to the view that principles of rationality do not tell us which scientific paradigms, or philosophical stances, we should adopt. van Fraassen accepts a sharp distinction between universal stance-transcending principles of rationality and stance-or-paradigm-dependent values. Principles of rationality demand that our paradigms be consistent and probabilistically coherent. Such principles put limits on the number of contenders, but they typically leave more than one of them in the running. This is the leeway in which values must operate.

Feyerabend too recognizes the importance of VEPPs in paradigm-choice. His case study on the Copernican Revolution repeatedly stresses Galileo's use of "propaganda," "psychological tricks," "clever techniques of persuasion," "emotion," and "appeal to prejudices of all kinds" (*AM* 89, 81, 106, 143, 154). Feyerabend also claims that the ultimate success of heliocentrism depended on the emergence of "new classes" for whom Copernicanism stood for values such as "progress" and "forward looking" (*AM* 210). This influence of VEPPs is not, for Feyerabend, something to be lamented. On the contrary, he regards VEPPs as essential for the progress of science: "Copernicanism and other 'rational' views exist today only because reason was overruled at some point in their past." (*AM* 155) Or: "Without a frequent dismissal of reason, no progress." (*AM* 179) Scientific revolutionaries succeed because "they do not permit themselves to be bound by 'laws of reason,' 'standards of rationality,' or 'immutable laws of nature'" (*AM* 191). Feyerabend is even willing to speak of "mob psychology" as a necessary feature in such revolutions (*AM* 211).

Two things need highlighting about these passages. The first is that VEPPs are here presented not as peacefully coexisting with principles of rationality, but as overriding them. I take this to be a by-product of Feyerabend's attempt to identify and emphasize VEPPs, and not a general thesis about the relationship between principles of rationality and VEPPs. The two can conflict, and they can cohere. The second thing to note about the passages quoted in the last paragraph is that they not only draw attention to situations in which VEPPs go against principles of rationality, but also suggest that such "going against principles of rationality" might ultimately lead to a rational outcome. This suggests distinguishing between the *short term* and *long term*. The fact that scientists—under the influence of VEPPs—act irrationally *in the short term*, leads to rational results *in the long term*. In other words, it is

the role of VEPPs to enable a fledgling scientific paradigm to grow and gain support until it has developed into a form that can live up to universal principles of rationality. Note that this picture of the role of rationality and VEPPs is at least *similar* to van Fraassen's view: after all, van Fraassen too highlights the need for emotions as enablers or triggers of paradigmatic change, a change that, when viewed retrospectively, leads to rational results.

Up to this point I have presented Feyerabend's views as if for him principles of rationality were paradigm-transcendent—as they are for van Fraassen. But this is not in fact how *AM* typically talks about rationality. It is more accurate to say that for Feyerabend principles of rationality are *internal* to paradigms or worldviews. This view surfaces when Feyerabend rails against "universal laws, [and] universal ideas such as 'Truth' [or] 'Reason'". He merely grants that "it is often good policy to ac *as if* such laws (such standards, such ideas) existed …" (*AM* 189, emphasis added) He also writes that the "idea of a … fixed theory of rationality rests on too naïve a view of man and his social surroudings" (*AM* 27) and that frequently "a new physics or a new astronomy might have to be judged by a new theory of knowledge" (*AM* 153). Such judgements are difficult to square with van Fraassen's epistemic voluntarism.

This difference suggests distinguishing between van Fraassen's *moderate* and Feyerabend's *radical* epistemic voluntarism. According to the radical version, there are no permanently fixed principles of rationality; all there is, is a number of basic cognitive values, interacting with other values, and weighted differently in different worldviews, paradigms or stances. Intriguingly enough, van Fraassen himself notes this option when considering whether consistency really deserves the status of a stance-transcending demand of rationality. But he firmly believes that the answer has to be "yes." Someone who completely ignores consistency is unable to draw any distinctions (pers. comm.), and invariably fares badly in evolutionary history (2004a: 184-5). The radical epistemic voluntarist will demur. At issue is not whether consistency and coherence belong to our set of prima-facie values; the issue is whether they should reign supreme. Graham Priest for example argues that consistency is a matter of degree and must always be weighed against other cognitive values such as "simplicity," "unity," "explanatory power" or "parsimony" (Priest 2005: 123).

If Priest is right about consistency and its relation to other epistemic values, then it becomes difficult for van Fraassen to maintain the distinction between *stance-transcending* principles

of rationality and *stance-dependent* VEPPs. If consistency can be rationally overruled, then it cannot be the universal and necessary criterion of rationality. If consistency can be overruled, then a stance which does so is not *per se* irrational. On this alternative picture, differences between rationally acceptable stances may be differences in what weight these stances give different "cognitive values," including the value of consistency.

It should be added that the challenge to van Fraassen's emphasis on consistency does not just come from Priest's controversial views. Kuhn (1977) argues along similar lines. Kuhn offers "shared epistemic values" (accuracy, consistency, scope, simplicity, fruitfulness) as the rational backbone of theory- or paradigm-choice. But Kuhn also insists that different scientists may rationally favour some values over other; interpret a given value in differently; or resolve conflicts between these epistemic values in variant ways (Lipton 2004: 153-55). This is clearly in line with epistemic voluntarism. Note however that consistency is again part of the value-mix and not standing outside as the ultimate touchstone or arbiter.

All this suggests radical epistemic voluntarism. Rationality consists in one's honouring all or some of the epistemic values. Kuhn and Priest list some of these values, but no doubt there are more. Indeed, which epistemic values there are, can only be determined by research in cognitive psychology and the history and philosophy of science (including epistemology). This does not give us a firm and fixed base; but perhaps it is the *conditio humana* to cope without such foundation.

Feyerabend is clearly with Priest and Kuhn. Admittedly some passages sometimes ring otherwise: "Copernicanism and other 'rational' views exist today only because reason was overruled at some point in their past." (*AM* 155) Here "reason" is not historicized or factorized into different cognitive values, differently weighted by different communities. But I take this sentence to be no more than shorthand; after all the same sentence puts inverted commas around "rational." Not to forget Feyerabend's granting that "it is often good policy to act as if such laws (such standards, such ideas) existed." In other words, couching some central tenets of *AM* in moderate garb makes the argument more palatable to readers unfamiliar with, or hostile to, the anarchist message. Moreover, and specifically with respect to consistency, remember that *AM* extensively rails against the so-called "consistency condition," that is the idea that a new scientific theory must be consistent with existing theories

or observations. (*AM* 35) *AM* also proclaims that "there is not a single science, or other form of life that is useful, progressive as well as in agreement with logical demands" (*AM* 258-9).

To sum up: Feyerabend is a *radical* epistemic voluntarist; van Fraassen is a *moderate* epistemic voluntarist. Although the debate between these two positions can hardly be decided in a single subsection of a single paper, at least this much seems to me to be clear: there is at least a *prima facie* case in favour of radicalism.

*(iii) Incommensurability*

For van Fraassen scientific revolutions always involve *incommensurable* paradigms. Feyerabend is less adament on this point. Although he is writes of the "Copernican Revolution," or Galileo's "revolutionary" way of understanding motion, Feyerabend also insists that "I never assumed that Ptolomy and Copernicus are incommensurable. They are not." (*AM* 23, 95, 114, 305) It is hard to know what to make of this *en passant* comment. Feyerabend and van Fraassen agree that scientific revolutions are cases where the newly suggested theory or paradigm appears "absurd" (*EM* 71, 113; *AM* 64, 66, 81, 189). They also agree that in retrospect the paradigm-change appears rational. And even though Feyerabend does not think Ptolomy and Copernicus were incommensurable, he is happy to speak of incommensurability between …

> … classical mechanics (interpreted realistically) and quantum mechanics (interpreted in accordance with the views of Niels Bohr), or between Newtonian mechanics (interpretted realistically) and the general theory of relativity (also interpreted realistically) … (*AM* 271)

Why then does *AM* deny that Ptolomy and Copernicus are incommensurable? Two reasons may be important here. First of all, note the emphasis on "*interpretation*" in the last quote. Feyerabend maintains that two theories are commensurable or incommensurable *only under an interpretation*. For instance, he writes that "instrumentalism … makes commensurable all those theories which are related to the same observations language and are interpreted on its basis" (*AM* 279). Thus Ptolomy and Copernicus may well be incommensurable under the interpretations of seventeenth-century Aristotelians or Galileo, but well-nigh commensurable under the interpretation of, say, Tycho Brahe.

Feyerabend may also have a second reason for denying that Ptolomy and Copernicus are incommensurable. This is that for him the requirements for incommensurability are high. Two paradigms, *A* and *B*, are incommensurable when their respective facts …

> … cannot be put side by side, not even in memory: presenting B-facts means suspending principles assumed in the construction of A-facts. All we can do is draw B-pictures of A-facts in B, or introduce B-statements of A-facts into B. We cannot use A-statements of A-facts in B. Nor is it possible to *translate* language A into language B. (*AM* 270-1)

It is not obvious that these conditions are met in the clash of Galileo versus the Aristotelian philosophers. After all, Galileo was very much able to put geo- and heliocentristic assumptions "side by side." He would hardly have been able to write his "Dialogue on the Two World Systems" otherwise.

It seems to me that this difference between van Fraassen and Feyerabend is important. It is of systematic interest to distinguish between revolutions in thought that involve *semantic* incommensurability in the strict sense outlined by van Fraassen, and revolutions in thought that do not. It is then an open question whether a given scientific revolutions falls into the one or the other category, and what effects this has on the course of scientific debate.

*(iv) Absurdity and the Idealization of Instantaneous Change*

van Fraassen's account of scientific revolutions veers towards the instantaneous: problems mount for the old paradigm; scientists increasingly doubt that they can make it work; they fall into epistemic despair; they encounter a new, absurd, alternative paradigm; and then an emotion-like impulse enables them to reconceptualise this alternative as rational. Feyerabend's rendering is different. *AM* (and later writings) analyses the *extended process* of working out a new paradigm. Interestingly enough, van Fraassen sometimes expresses sympathies for Feyerabend's focus, but these sympathies do not influence van Fraassen's theory (van Fraassen 1999).

Feyerabend describes the interval between the reigns of successive paradigms as a time in which increasing numbers of scientists are willing to support a view that they recognize as

"inconsistent with […] plain and obvious [facts]" and with well-established theories (*AM* 56). It takes "sheer pig-headedness" (*AM* 155) for these scientists to develop an alternative: this is because every step in the direction of the new view produces "nonsense" by the lights of received theories. Developing alternatives calls for a number of tools: prominent amongst them are ad-hoc hypotheses; the accusation that the received evidence is "contaminated" by theories that are false; the creation of new sensations with the help of new instruments; or the reinterpretation of what can be experienced (*AM* 67, 89, 97, 99). In short: "the 'irrationality' of the transition period [is] overcome […] by the determined production of nonsense until the material produced is rich enough to permit the rebels to reveal, and everyone else to recognize, new universal principles" (*AM* 270).

Although Feyerabend and van Fraassen differ in how much detail they provide on the "transition period" from old to new paradigms, van Fraassen agrees with Feyerabend's insistence that to understand such periods calls for an understanding of ordinary (scientific) language as fluid, flexible and full of ambiguities. I have emphasized this aspect concerning *Metamorphosis* above. Suffice it to say that van Fraassen finds the treatment of language in Chapter One of *Conquest of Abundance* (1999) particularly insightful. Here Feyerabend describes a radical conceptual shift in the Homeric world: from thinking that to be honourable *is* to be honoured by one's society, to thinking that you can be honourable even when your society fails to honour you. Initially the shift was hard to make sense of. When Achilles first drew the distinction, his Greek audience, as Homer puts it, "fell silent, for he had spoken in stunning ways" (1999: 19). How could Achilles convince the Greeks? As Feyerabend has it, by exploiting the openness of language and the ordinary speakers' temporary tolerance of incomprehension: "… we … find that ordinary people … readily accept statements which sound strange to their neighbours and nonsensical to scholars." (1999: 32) Given the right incentives or interests, we are willing to pick up and use expressions that become meaningful only when accompanied by further new expressions (that initially were just as "stunning"). What is more, language is full of ambiguities and analogies that can be exploited by clever and determined men like Achilles or Galileo. Galileo's parallel between the painter in the boat and human on earth convinced people that earthly movement might remain unrecognized. And Achilles' suggestion that being honoured by the Gods doesn't imply being honoured by one's communities paved the way to breaking the link between being honourable and being honoured by own's society. (1999: 36) Feyerabend sees these linguistic techniques at work regardless of whether the given "revolution" involved incommensurability or not. (*AM* 270)

*(v) Impules and Rules in Scientific Revolutions*

van Fraassen takes emotions, or emotion-like "impulses," to be necessary preconditions for scientific revolutions. Such emotions and impulses have the potential to bring about a radical restructuring of choice-situations: they generate new sets of "live options." Unfortunately, van Fraassen remains a bit sketchy on the details, relying primarily on the intuitive plausibility of the Samsa-family's radical change-in-view concerning the beetle in Gregor's room.

To get clearer on the range of possible positions concerning this issue, it seems useful to bring in a third voice, in addition to van Fraassen and Feyerabend: Ernan McMullin (2007). McMullin is happy to admit that Copernicus' or Galileo's positions seemed "absurd" to their Aristotelian opponents (2007: 172) But he denies that the available sources on either Copernicus or Galileo reveal the "epistemic despair" or "Sartrean moment" that van Fraassen's impulse-theory of scientific revolutions requires. Copernicus arrived at his position via a "mathematical reworking of the traditional Ptolemaic data," and when Galileo "came along, a rational bridgehead was already there." McMullin acknowledges that both Galileo and his opponents "could claim to be rational in choosing the position [they] did" (2007: 172-3). The core of van Fraassen's reply is that the need for an emotion-like impulse is a "point of logic:" some such impulse *has to be* operative if rational actors are to switch to a position they had regarded as absurd (2004).

The similarities and differences between McMullin, van Fraassen and Feyerabend are intriguing. McMullin and Feyerabend share an emphasis on the Copernican Revolution as a long-drawn-out process. As we saw in the last section, van Fraassen's idealized and simplified account sometimes sounds as if scientific revolutions were instantaneous events.

In another respect Feyerabend is closer to van Fraassen than to McMullin. For Feyerabend and van Fraassen the switch from geo- to heliocentrism was not a switch governed solely by established rules of scientific method plus theory-neutral evidence. I have already quoted several passages from *AM* that stress the importance of values, biases, rule-breaking and prejudice. Incidentally, even McMullin admits that good data and the scientific method were not quite enough to push Copernicus towards heliocentrism. Copernicus was also influenced by the idea that "the sun, the source of light and life [belongs] at the centre" of the universe

(2007: 172). Be this as it may, Feyerabend's emphasis on values and impulses clearly puts him closer to van Fraassen than McMullin.

And yet, although Feyerabend and van Fraassen agree on the importance of values and impulses, they have rather different conceptions of what these impulses are. In van Fraassen's case, McMullin seems right when he speaks of "Sartrean moments:" these moments are closely modelled on religious or existential conversions *of individuals*. Feyerabend's impulses, by contrast, are collective responses to changing *social-political conditions*: it was, he writes, the rise of "a new secular class" that was crucial for the ultimate success of Copernicanism. The new secular class was opposed to "the barbaric Latin spoken by the [Aristotelian] scholars," to "the intellectual squalor of academic science," to its "uselessness" and to "its connection with the Church." Copernicus came to represent "progress," "the classical times of Plato and Cicero," and "a free and pluralistic society." Galileo exploited this setting "and amplifie[d] it by tricks, jokes, and *non-sequiturs* of his own" (*AM* 154). Feyerabend does not suggest that these political interests by themselves constituted scientific arguments against Aristotelianism. He rather sees them as elements that weakened "the influence" of the Aristotelian considerations. People at the time paid less attention to these considerations; and they were willing to bet on Galileo's heliocentrism even while recognizing that the view was, in the light of their Aristotelian background, absurd.

We do not, of course, have to see collective social responses and individuals' "Sartrean moments" or "epistemic despair" as excluding one another. No doubt both can occur together. And yet, historical scholarship on the Copernican Revolution, especially by Mario Biagioli (1993, 2006), suggests that social-political issues go a very long way in explaining the actions of Galileo, his supporters and his opponents (cf. Finocchiaro 2010). It is much more difficult to discern from Galileo's writings when and where epistemic despair played a role. van Fraassen agrees as much in suggestion that the role of emotion is more a point of "logic" than a point of the historical record.

Finally, there is also a clear respect in which van Fraassen and McMullin are closer to each other than either of them is to Feyerabend. I am referring to van Fraassen's and McMullin's attempts to save the rationality of scientific revolutions. In van Fraassen's case this takes the following form. Principles like "*sola experientia*" continue to be followed throughout scientific revolutions, albeit that—under the influence of different "impulses"—they are interpre-

ted fundamentally differently: *conservatively* in defence of an existing paradigm; in *revolutionary fashion* in defence of a new paradigm.

van Fraassen discussion of "*sola experientia*" builds directly upon Feyerabend's paper "Classical Empiricism" (1970). van Fraassen is particularly intrigued by Feyerabend's suggestion that the "*sola experientia*" of the natural philosophers of the seventeenth century played a similar role as did the Protestants' "*sola scriptura*". Nevertheless, it is striking that van Fraassen's and Feyerabend's take on "*sola experientia"* is very different. Feyerabend is eager to establish that the rule is "vacuous" (1970: 41). It is vacuous because it gives advice only in a setting in which people already agree on the importance of experience; agree on what counts as experience; agree on how to interpret experience; and agree on what can be derived from a given experience. But if all this is already settled, then "*sola experientia"* does not provide any new advice; it merely "reinforce[s] an already existed faith" (1970: 40); it is no more than a "party line[..]" (1970: 51). This is directly parallel to the Protestants' *"sola scriptura".* The latter too only makes sense if the extension of "scripture," its interpretation, and its principles of guidance have already been agreed in a community. In both cases the "rejection of authority … does not lead to a more critical attitude. It leads to the enthroning of new authorities …: scripture on the one side, experience on the other" (1970: 50).

Feyerabend is particularly interested in the "classical empiricism" of Newton. To cut a long story short, Feyerabend highlights Newton's strategy for marshalling evidence for his views. First, an idea is made familiar by being repeated and illustrated. And second, the familiarity thus established is then used "as if it were an additional source of support." For Feyerabend this strategy is "not different from political propaganda …" (1970: 51) This observation sounds like a criticism of Newton's strategy, but Feyerabend does not mean it in this way. On the contrary, he concludes that Newton's circular way of reasoning is "democratic" in that the same technique can be used by anyone and applied to just "any idea". And this is good for scientific pluralism and a democratic and humanitarian science.

The difference between van Fraassen and Feyerabend is stark at this point. van Fraassen wants to use "*sola scriptura*" to secure empiricist rationality across scientific revolutions. Feyerabend denies that the principle captures any form of rationality, empiricist or otherwise. He tries to convince us that it is no more than a vacuous party line, "an ornament," potentially leading to positive, pluralist outcome. van Fraassen wants to save a continuity of

rationality through revolutions; Feyerabend seeks to analyse the interplay of scientific aspi-rations, social circumstances, rhetoric and power.

*§6. Relativism in van Fraassen and Feyerabend*

In §5(ii) I contrasted van Fraassen's *moderate* with Feyerabend's *radical* version of episte-mic voluntarism. The moderate version draws a sharp distinction between principles of ra-tionality and VEEPs. The radical version, by contrast, allows for no permanently fixed prin-ciples of rationality; instead there are basic cognitive values, interacting with other values, and weighted differently in different worldviews, paradigms or stances. In this last section I want to highlight the different implications of the two positions regarding epistemic relati-vism.

Arguably even van Fraassen's moderate epistemic voluntarism is committed to a form of epistemic relativism. It consists of the following theses:

(I)     The epistemic status of judgements is relative to stances.

(II)    Different stances evaluate the same judgements differently.

(III)   There is no perspective from which stances can be neutrally and absolutely ranked.

(IV)    The move from one stance to another can have the character of a "conversion:" principles of rationality combined with empirical data cannot compel a transition from one stance to another.

van Fraassen himself invokes the idea of conversion as follows:

> Being or becoming an empiricist will then be similar or analogous to conversion to a cause, a religion, an ideology, to capitalism or to socialism, to a worldview such as Dawkins's selfish gene view or the view Russell expressed in "Why I am Not a Christian." (2002: 60)

van Fraassen is ready to admit the relativistic implications of epistemic voluntarism: "If this is relativism, it is certainly not debilitating relativism—it is only an acknowledgement of the logic of this aspect of the human condition" (2004b: 11). I take it that by "debilitating relati-vism" van Fraassen means a form of relativism that makes its advocate unable to judge or

argue. Perhaps he is thinking of versions of epistemic relativism that declare all stances to be "equally valid." Clearly, if all stances are equally valid then there cannot be much point in arguing about them.

Note also that van Fraassen's relativism leaves room for rejecting some alternative epistemic practices as *absolutely* irrational: after all irrationality can be measured against a unique set of principles of rationality (of deductive logic, the theory of probability, and the practical syllogism). Relativism comes into its own only when two epistemic practices differ only in their VEPPs. In such cases the assessment of alternative epistemic practices is based on stance-internal and potentially stance-specific epistemic and other values.

Clearly, the epistemic relativism of *AM* is more radical in precisely the way in which radical epistemic voluntarism is more radical than moderate epistemic voluntarism. The epistemic relativism of *AM* goes "all the way down"—there are no universally valid principles of rationality. Feyerabend rejects "universal standards, universal laws [and] universal ideas" (*AM* 189). Still, his relativism does not prevent him from making evaluative statements about his own and others frameworks. Feyerabend regards it as *sceptical rather than relativist* to claim that "every view [is] equally good, or [is] equally bad" (*AM* 189). And *AM* is happy to say that "[we] can say today that Galileo was on the right track …" (*AM* 26, 155) Such judgements are not absolute of course, but based on our epistemic practice. While such passages show that Feyerabend, just like van Fraassen, rejects a debilitating "equal-validity" relativism, there is nevertheless another "equality thesis" central in *AM*: to bring about rational progress—as measured with local and contingent criteria—it always needs "irrational means such as propaganda, emotion, ad hoc hypotheses, and appeal to prejudices of all kinds" (*AM* 154). Finally, *AM* is of course famous—or notorious—for denying that science is superior to "myth, religion, magic [and] witchcraft" (*AM* 291, 298). For Feyerabend science is just "one of the many forms of thought that have been developed by man, and not necessarily the best" (*AM* 291). And the same is true for philosophy (*AM* 298).

*§7. van Fraassen, Feyerabend, Boghossian*

In this final section I shall discuss how the two forms of relativism—the moderate relativism of *ES*, and the radical relativism of *AM*—fare against four anti-relativist arguments put for-

ward by Paul Boghossian. This will help to further clarify the differences and commonalities between the two positions.

(i) By "absolute relativism" Boghossian means a form of relativism that works with a mixture of absolute and relative principles. The paradigmatic case of this view is a relativism of manners based on the one absolute principle: "When in Rome do as the Romans do." Or think of subjective Bayesians for whom the Bayesian formula is the one and only absolute principle. (Boghossian 2011: 67) Boghossian rejects absolute relativism. By accepting the existence of one absolute principle, Boghossian submits, the relativist has lost what surely must be her strongest card, to wit, worries how absolute principles fit into the empirical world, and how they can be known by finite and fallible creatures. Moreover, the absolute relativist has no good answer to the question why there could not in principle be more than one absolute norm (Boghossian 2011: 68).

van Fraassen's moderate relativism-voluntarism is a clear instance of an "absolute relativism." After all, van Fraassen treats principles forbidding inconsistency and incoherence as definitive of rationality, and a different from VEPPs. Still, I suspect that he would be unmoved by Boghossian's attack. In allowing for absolute principles, van Fraassen and Boghossian are in the same boat; thus if van Fraassen owes us an account of how absolute principles can fit into the empirical world, so does Boghossian. van Fraassen also has a suggestion concerning the question why there could not in principle be more than just a few absolute norms. "There could be," he might well reply, "but as the variation is stances and VEPPs shows, there aren't more than the ones I have identified."

The Feyerabend of *AM* is able to give a different answer. He can simply deny being committed to absolute relativism. Feyerabend's radical relativism rejects the distinction between absolute and relative principles or values.

 (ii) Boghossian readily acknowledges that our epistemic practices vary, but he denies that that this variation supports relativism. What variation there is can be explained by the fact that our absolute rules are sometimes vague and unspecific. They leave room for choice. (Boghossian, pers. comm.; 2006: 110). This suggestion seems to fit with van Fraassen's *moderate* relativism with its principles of rationality that leave our choices of stances or

paradigms underdetermined. This underdetermination is removed only once VEPPs do their work. Feyerabend's relativism deviates fundamentally from Boghossian's proposal.

Who is right? The first thing to note here is that Boghossian's idea does not in fact block relativism. If true, all it suggests is that the *scope* of relativism is not unlimited. But the breadth of the scope remains completely open. Clearly, Boghossian, van Fraassen and Feyerabend are likely to have very different views on this breadth.

Boghossian is likely to press his case by arguing as follows. If we allow, as we should, for appropriate forms of idealization and abstraction, then surely we will be able to construct general and absolute epistemic principles to which every normal human being is at least implicitly committed.

Feyerabend should not be overly impressed. Yes indeed, he should say, we might proceed in the way Boghossian suggests. But we should not expect this methodology to lead to one unique outcome. On the contrary, work done in this way is faced with all the old issues concerning the underdetermination of theory by observation. Moreover, it might well be highly artificial and contrived to bring all of our epistemic folkways under one small set of absolute epistemic principles. And last, but not least, what should we do with the actors' own perspective on their epistemic folkways? Should we simply ignore this perspective? If not, what then should we say when the actors' do not recognize their own reasoning in the epistemologists' reconstructions and idealizations?

(iii) Stances and perhaps even paradigms can be more or less different, more or less distant, from one another. The greater the difference or distance, the more we need the idea of "conversion" for capturing what happens when the folk or scientists shift from one stance or paradigm to another. And it is only when conversion is needed for capturing the change that epistemic relativism is vindicated.

Parts of Boghossian's 2006-book can be read as offering a suggestion for how the relativism-motivating distance or difference between stances or paradigms can be captured. Boghossian distinguishes between "fundamental" and "derived" "epistemic principles." A *fundamental* principle concerning observation licences perceptual beliefs under certain general conditions. A *derived* principle concerning observation licences the perceptual

beliefs of a specific person, or perceptual belief given a specific instrument (like a microscope or telescope). Boghossian claims that two "epistemic systems"—that is, two systems of epistemic principles—are "fundamentally different" when they differ in at least one fundamental epistemic principle. And fundamental difference of epistemic systems is what defines a relativistic setting. Of course, Boghossian's interest in all this is to bury relativism, not to praise it. He therefore goes on to argue that relativists have so far failed to offer a single convincing case of such fundamental difference between epistemic systems. In particular, Galileo and Cardinal Bellarmine did not differ over any fundamental epistemic principle. (Boghossian 2006: 63-69, 90-91, 103-105)

Can Boghossian's concepts and criticisms be applied to van Fraassen's and Feyerabend's relativism? Have they offered convincing examples of differences in fundamental epistemic principles?—To my mind neither form of relativism is threatened by Boghossian's considerations. To begin with, it is most unlikely that Feyerabend or van Fraassen's would accept Boghossian's criterion for a relativism-inducing difference in stances, that is, a difference in at least one fundamental principle. Feyerabend's and van Fraassen's perspectives are coherentist rather than foundationalist. What distinguishes Cardinal Bellarmine from Galileo is not one fundamental epistemic principle but a whole host of beliefs and VEPPs. It is the number and weight of these differences that requires a conversion, not the fundamental character of one of them. The distance from Boghossian increases further as we shift from moderate to radical epistemic relativism: the latter does not accept that everyone must share (the interpretation of) the same basic epistemic values.

(iv) Boghossian (2011: 60-66) finds epistemic relativism inherently unstable. On the one hand, the relativist allows that epistemic systems fundamentally different from her own are, in some sense, as valid as her own. On the other hand, the relativist also prefers her own epistemic system and does not give it up. How can these two attitudes be reconciled? Boghossian is doubtful that relativism can deliver a plausible solution.

van Fraassen's response is perhaps best captured in the following remark (which was not addressing Boghossian's considerations):

> I remain convinced that genuine, conscious reflection on alternative beliefs, orientations, values—in an open and undogmatic spirit—does not automatically undermine one's own commitments. (2011: 156)

Of course, we need an argument defending this conviction. I submit that both the moderate and the radical relativist can provide such argument. Here is what Feyerabend might say. Under certain conditions, we can—from the perspective of our paradigm (or stance)—recognize the VEPPs and beliefs of another paradigm as justifiable. That is, we can come to see the VEPPs and beliefs of another paradigm as rational provided only that we can identify a way *of justifying them with reference to some plausible combination and weighting of epistemic values*. If this proves possible, then the other paradigm is in some sense "equal" to our own. And yet, the fact that we can see the other paradigm in this light does not give us a reason to convert to it. After all, we might well have VEPPs and beliefs that differ from those of the other paradigm. And our VEPPs and beliefs might give us sufficient reason not to convert. van Fraassen would agree, except for the words in italics. He would say that in justifying the VEPPs and and beliefs of another paradigm we can also invoke shared stance-transcending principles of rationality. Be this as it may, neither Feyerabend not van Fraassen are threatened by Boghossian's argument.

*§8. Conclusions*

In this paper I have compared and contrasted three themes in van Fraassen's *ES*—the idea of stances, epistemic voluntarism, relativism—with motifs and arguments in Feyerabend's *AM*. I hope to have shown that epistemological anarchism is naturally read as a stance; that van Fraassen deviates from Feyerabend in defending a *moderate* rather than *radical* version of epistemic voluntarism; that the two philosophers differ in their understanding of scientific revolutions (e.g. Feyerabend's rendering of scientific revolutions is less individualistic, less instantaneous, and less concerned with "saving their rationality" than van Fraassen's account); and that the difference in voluntarism reflects itself in two versions of epistemic relativism. In concluded by arguing that both versions have the argumentative resources to defend themselves against Boghossian's anti-relativist arguments.

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