

‘WHO CLAIMS TRUTH, TRUTH ABANDONS’: EPISTEMOLOGICAL ANARCHISM IN
PYNCHON’S MASON & DIXON

By

Daniel Emerson Lyew, B.A.

A Project Submitted in the Partial Fulfillment of the Requirements

for the Degree of

Master of Arts

in

English Literature

University of Alaska Fairbanks

May 2021

APPROVED:

Sara Johnson, Committee Co-Chair
Terry Reilly, Committee Co-Chair
Richard Carr, Committee Member
Daryl Farmer, Committee Member
Chris Coffman, Chair
Department of English

Abstract

This paper introduces and uses Paul Feyerabend's Epistemological Anarchism (EA) as an interpretive lens through which to read key passages in Thomas Pynchon's 1997 novel *Mason & Dixon*. In particular, this paper uses EA to provide a novel and distinct way of understanding what Brian McHale terms the novel's subjunctivity, or spaces of possibility. I use EA as a new framework for understanding the epistemological, ontological, and humanitarian/ethical dimensions of the novel's subjunctive spaces, and hint at ways in which EA might be used in Pynchon's other novels.

Table of Contents

	Page
Abstract	i
Table of Contents	iii
‘Who Claims Truth, Truth Abandons’: Epistemological Anarchism in Pynchon’s <i>Mason & Dixon</i>	1
1 Introduction	1
2 What Is Epistemological Anarchism?	2
3 Subjunctivity in <i>Mason & Dixon</i>	6
4 Anarchistic Ontology	11
5 Materialism, Mechanism, and Automata	13
6 Dream-Worlds	18
7 “An Anarchist Miracle	21
8 Conclusion.....	22
Works Cited.....	24

1 Introduction

In “*Mason & Dixon* in the Zone,” Brian McHale notes the coincidence of two reviewers quoting the same passage¹ in reviews released on the same day. He writes, “I suppose that what attracted [them] to this passage is its foregrounding of the subjunctivity that is such a salient feature of *Mason & Dixon*” (44). David Cowart, quoting *Mason & Dixon*, likewise notes that “Pynchon intimates that.... America, [to the Europeans who crossed the Atlantic], represented “one more hope in the realm of the Subjunctive”” (139), and McHale similarly claims that the novel characterizes “the American West as a subjunctive space, the space of wish and desire, of the hypothetical and the counterfactual, of speculation and possibility” (McHale 44).

But *Mason & Dixon* is also a novel about science and scientists. Theophilus Savvas, quoting the novel, points out that, “Astronomer Charles Mason and surveyor Jeremiah Dixon are, at the novel’s outset, certain of their place in the enlightened world: “Tis the Age of Reason... we’re Men of Science”” (53, *M&D* 27, my ellipsis).² Nina Engelhardt further notes “The very nature of science is under investigation in [the novel]” (197), and moreover, “the novel illuminates the violent reduction of the subjunctive to the certainty of scientific facts,” thus implicating science in the destruction of the subjunctive realm.

My aim in this article is to add another layer to the discussion, or a log to the fire of subjunctivity and science in *Mason & Dixon*: in particular, my aim is to introduce philosopher of

¹ “Does Britannia, when she sleeps, dream?...” (*M&D* 345). I cite the passage in full and provide a more extensive reading on p. 6 of this essay.

² Throughout, I will always note when an ellipsis is mine or is in the text. Moreover, I will be citing *Mason & Dixon* as *M&D* in parenthetical citations.

science Paul Feyerabend's "epistemological anarchism" (hereafter EA) as (another) tool for understanding the relationship between subjunctivity and science in *Mason & Dixon*. I will argue that reading particular episodes of *Mason & Dixon* through the lens of epistemological anarchism reveals interesting patterns and dimensions throughout the novel. However, before I discuss the extant literature on subjunctivity in *Mason & Dixon*, and before offering a look at the novel through this lens, I will discuss more fully just what EA is.

2 What Is Epistemological Anarchism?

EA³ has its roots in the work of philosopher of science Paul Feyerabend, and particularly in his 1975 monograph *Against Method*. Central to EA are two convictions, one of which is epistemological in scope, the second of which is humanitarian in scope (and which to a certain extent contains within it the epistemological conviction). Regarding the epistemological conviction, Feyerabend writes,

the world which we want to explore is a largely unknown entity. We must, therefore, keep our options open and we must not restrict ourselves in advance. Epistemological prescriptions may look splendid when compared with other epistemological prescriptions, or with general principles—but who can guarantee that they are the best way to discover, not just a few isolated 'facts', but also some deep-lying secrets of nature? (*AM* 4)⁴

³ For a more thorough discussion of EA and its place in both Feyerabend's thought and the broader currents of the philosophy of science, the reader may consult the Stanford Encyclopedia of Philosophy's entry on Paul Feyerabend: <https://plato.stanford.edu/entries/feyerabend/>

⁴ I will be citing *Against Method* as *AM*. Moreover, unless otherwise noted, all citations in this section are from Feyerabend's *Against Method* (*AM*).

For Feyerabend, the rigorous adherence to prescriptions or methodological rules—such as induction (13) or falsifiability (146)—would needlessly restrict science from approaching whatever “deep-lying secrets of nature” it might ever come to grasp (22, 27). As such, Feyerabend playfully suggests “that there is only one principle that can be defended under *all* circumstances and in all stages of human development. It is the principle: *anything goes*” (12).

To the extent that methodological prescriptions determine the treatment of scientific theories, this abandonment of strict adherence to rules has implications for how theories, hypotheses, and facts are treated. Feyerabend writes,

a scientist who is interested in maximal empirical content, and who wants to understand as many aspects of his theory as possible, will adopt a pluralistic methodology, he will compare theories with other theories rather than with ‘experience’, ‘data’, or ‘facts’, and he will try to improve rather than discard the views that appear to lose in the competition. For the alternatives, which he needs to keep the contest going, may be taken from the past as well. As a matter of fact, they may be taken from wherever one is able to find them—from ancient myths and modern prejudices; from the lubrications⁵ of experts and from fantasies of cranks. (27)⁶

Here, Feyerabend is undermining methodological prescriptions governing the development of *prima facie* untenable theories: prescriptions that state, for instance, that proposed hypotheses and theories must be consistent with past theories, or with facts. Such prescriptions would inhibit the development of science: facts, for instance, are very often expressed in the conceptual

⁵ An example of Feyerabend’s occasionally eclectic and provocative word choices.

⁶ Compare with Cherrycoke’s claim that, “[Truth] needs rather be tended lovingly and honorably by fabulists and counterfeiters, Ballad-Mongers and Cranks of ev’ry Radius” (*M&D* 350). This passage is discussed on p. 10 of this essay.

language of an established, orthodox theory and are thus “contaminated” (46). Citing concrete instances in the history of (Western) science, Feyerabend argues that the Copernican revolution would never have gotten off the ground if scientists followed such prescriptions (46); nor would have either the Bohr model of the atom or Einstein’s special theory have been maintained (34). Such theories were developed in opposition to certain methodological prescriptions—moreover, such theories were eventually (though provisionally!) vindicated as being windows into the “secrets of nature.”

William James, writing a few decades before Feyerabend, expresses a similar attitude: “a rule of thinking which would absolutely prevent me from acknowledging certain kinds of truth if those kinds of truth were really there, would be an irrational rule” (James 477). The success of science—the ability of science to unearth those “deep-lying secrets of nature”—depends on the articulation and proliferation of interesting, novel theories that may be deeply inconsistent with orthodoxy.

However, Feyerabend stresses that “nothing is ever settled” and that “the task of the scientist, however, is no longer ‘to search for truth’” (14), suggesting that the true aim is not necessarily the “secrets of nature”, and that EA is not ultimately concerned with unearthing what Feyerabend elsewhere calls “Truth” in a playfully provocative tone (16, 156). Rather, Feyerabend stresses that anarchism is an essential ingredient in the scientific enterprise because it makes the enterprise a liberal humanitarian one, rather than an authoritarian one. Quoting John Stuart Mill’s essay *On Liberty*, Feyerabend writes,

[science guided by “strict and unchangeable rules” (3)] cannot be reconciled with a humanitarian attitude. It is in conflict with ‘the cultivation of individuality which alone produces, or can produce, well-developed human beings’.... The attempt to increase

liberty, to lead a full and rewarding life, and the corresponding attempt to discover the secrets of nature and of man, entails, therefore, the rejection of all universal standards and all rigid traditions. (4)

EA thus understands methodological rules to preclude (to a greater or lesser extent) the development of the human being in all their freedom and dignity. Science, if it is to be a humanitarian activity, must allow itself to be “guided by ‘passion’” (10), and Feyerabend even suggests that “a person’s religion... or his metaphysics, or his sense of humor” (3) may legitimately influence that person’s practice of science.

This suggests that Feyerabend’s conception of humanitarian science is fundamentally individualistic, insofar as the above material focuses on the development and cultivation of the individual person. However, EA’s humanistic concerns go deeper. Reflecting upon his time as a professor at UC Berkeley during the “years around 1964,” Feyerabend writes,

[My students of color’s’] ancestors had developed cultures of their own, colourful languages, harmonious views of the relation between people, and between people and nature whose remnants are a living criticism of the tendencies of separation, analysis, self-centredness inherent in Western thought. These cultures have important achievements in what is today called sociology, psychology, medicine, they express ideals of life and possibilities of human existence. Yet *they were never examined with the respect they deserved* except by a small number of outsiders; they were ridiculed and replaced as a matter of course first by the religion of brotherly love and then by the religion of science.... The task [of being a professor]—this now became clear to me—was that of a very refined, very sophisticated slavedriver. (278, Feyerabend’s italics)

Moreover, Feyerabend characterizes the prime impetus behind *Against Method* and the project of EA as,

Anger at the wanton destruction of cultural achievements from which we all could have learned, at the conceited assurance with which some intellectuals interfere with the lives of people, and contempt for the treacly phrases they use to embellish their misdeeds.
(265)

The upshot is that the behind EA (or at least Feyerabend's development of EA) is a deep concern over the destruction of entire traditions—intellectual and otherwise—that either had or could have contributed greatly to the development of not only human persons but entire cultures. EA is therefore humanistic not only in the sense of advocating for the freedom of individuals in the realm of scientific practice, but it is humanistic in the sense of advocating for the preservation, development, and open exchange (see *AM* 284 as well as section 7 of this essay) of any and all ideas, scientific or otherwise, which people might find useful, liberating, or insightful. Conversely, science without anarchism is implicated in colonialism and the erasure of practical and theoretical traditions from around the world, traditions from which “we all could have learned” (265).

3 Subjunctivity in *Mason & Dixon*

As noted above, subjunctivity plays a prominent role in *Mason & Dixon*. Consider the passage that McHale notes was used by two different reviewers:

Does Britannia, when she sleeps, dream? Is America her dream?— in which all that cannot pass in the metropolitan Wakefulness is allow'd Expression away in the restless

Slumber of these Provinces, and on West-ward, wherever 'tis not yet mapp'd, nor written down, nor ever, by the majority of Mankind, seen,— serving as a very Rubbish-Tip for subjunctive hopes, for all that *may yet be true*,— Earthly Paradise, Fountain of Youth, Realms of Prester John, Christ's Kingdom, ever behind the sunset, safe till the next Territory to the West be seen and recorded, measur'd and tied in back into the Net-Work of Points already known, that slowly triangulates its Way into the Continent, changing all from subjunctive to declarative, reducing Possibilities to Simplicities that serve the ends of Governments,— winning away from the realm of the Sacred, its Borderlands one by one, and assuming them unto the bare mortal World that is our home, and our Despair.

(*M&D* 345)

McHale understands this hope for subjunctivity as being primarily spatial in orientation, rather than temporal. While he does claim that “the temporal is certainly at issue” (48), he himself states that he tends to “emphasize subjunctive space over subjunctive time” (46), or, in other words, that he emphasizes the subjunctive “spaces projected in the narrative” instead of the “subjunctive sequences of events” (46).

McHale catalogues these spaces into a variety of forms (topologies?): Nested Spaces (50-51), Dream-Spaces (51-53), American Spaces (53-54), Otherworld Spaces (54-56), and Zones of the Interior (56-57). The precise distinctions between these different forms of space are not particularly relevant here: what is relevant, however, is the sense in which McHale claims they are permeable. For instance, the Nested Spaces—the stories within stories—“appear to be compatible with the “real world”” (McHale 50), and McHale notes that, of the Dream-Spaces throughout the novel, many are shared, and this aspect raises the question: “If a hallucination shared by two already has a toehold in reality, then how many shares would it take for a

hallucination to attain full membership in consensual reality?” (53). McHale characterizes the possibilities of shared realities as “disturbing” (52), but suggests what is perhaps a positive spin by restating the core question: “Is America [Britannia’s] dream?” (345). The implication is that these subjunctive Dream-Spaces populating America might be shared, and thereby be actualized.

Also relevant here is the way McHale claims these spaces are oriented. While Pynchon’s *Gravity’s Rainbow* organizes its subjunctive spaces along a vertical hierarchy, the subjunctive spaces in *Mason & Dixon* are organized horizontally (McHale 57), and the horizontality of *Mason & Dixon* “corresponds to democracy in political philosophy, and to a metaphysics of this-worldliness” (McHale 59). The upshot is that “the Other World lies, if anywhere, not above or below this one, but alongside or ahead of it, “across the wind,” somewhere out there in subjunctive America” (60).⁷ Moreover, while the subjunctive spaces in *Gravity’s Rainbow* are associated with “the Elect” and “transcendence” (McHale 69), the subjunctive spaces of *Mason & Dixon* are accessible and putatively democratic: the prospect of true democracy is located within subjunctive America. Towards the end of their work in America, Dixon says to Mason, “No matter where in it we go, shall we find all the World Tyrants and Slaves? America was the one place we should *not* have found them” (693), suggesting that one of their many hopes was that somewhere in this subjunctive space might be freedom from “World Tyrants.” If one of the World Tyrants is Enlightenment science itself, as is suggested by the novel’s treatment of the Mason-Dixon line (and as I will discuss more fully in the following paragraph), then we can see Dixon (and/or Cherrycoke) as an early practitioner of EA, who might have hoped that

⁷ The phrase “as above, so below” is often used by Pynchon (see *M&D* 487). It is also associated with Hermes Trismegistus (Skeen).

Enlightenment science could enter into an “open exchange” with other traditions rather than a “guided exchange” that would privilege Enlightenment science from the start (284).⁸

In “Plot, Ideology, and Compassion in *Mason & Dixon*” (an article that initially appeared in the same volume as McHale’s “Pynchon-Space”), Thomas Schaub argues that it is the surveying of the Mason-Dixon line that serves as the primary metaphor (if not the primary mechanism) by which the subjunctive is rendered into the declarative. “[The meaning] of the allegory is always in sight,” says Schaub, and the reader of *Mason & Dixon* “never works very hard to identify Pynchon’s intentions or (for example) the meaning of that Line which Mason and Dixon are surveying” (Schaub 2). He further notes, “the Line and its analogues spoil a good night of romance”, and Captain Zhang “declares the Line “a Conduit for... bad energy”” (Schaub 2, *M&D* 542, my ellipsis). Moreover, in noting an implicit analogy between the author and surveyor, Schaub argues that Pynchon has Cherrycoke distinguish his narrative style— “an Herodotic Web of Adventures and Curiosities” (*M&D* 7)—from an opposing surveying style that takes “rabid pleasure in converting space into lines and angles” (Schaub 2). This latter style is likened to Uncle Ives’s insistence that “facts are facts” (*M&D* 350), while Cherrycoke argues that “Facts are but the Play-things of lawyers” (349), and that what’s needed is “not a Chain of single links, for one broken Link could lose us All,— rather, a great disorderly Tangle of Lines, long and short, weak and strong, vanishing into the Mnemonick Deep” (349). Cherrycoke’s claim has much in common with Feyerabend’s claim that, “[Knowledge is] an ever increasing *ocean cf mutually incompatible alternatives*, each single theory, each fairy-tale, each myth that is part of the collection forcing the others into greater articulation” (14, Feyerabend’s italics). Both parties stress the need for a great number of alternatives in order to guarantee anything like

⁸ I discuss the terms “open exchange” and “guided exchange” more fully in section 7 of this essay.

“History” (for Cherrycoke) or, more broadly, “Knowledge” (for Feyerabend). Just like Dixon, we can see Cherrycoke as expressing sympathies similar to those of EA.

Schaub suggests that *Mason & Dixon* itself is not an exercise of Cherrycoke-style history, insofar as it is not a “disorderly Tangle of Lines,” but rather “a parable of the construction of the West misread by the Age of Reason and mystified as discovered “fact.”” (Schaub 3) Nonetheless, the implication is that the counterforce (to borrow a term from *Gravity’s Rainbow*) needed to preserve the subjunctive against the effects of the Line is a proliferation of truths; or, as Cherrycoke puts it, “Who claims Truth, Truth abandons... [Truth] needs rather to be tended lovingly and honorably by fabulists, and counterfeiters, Ballad-Mongers and Cranks of ev’ry Radius” (*M&D* 350, my ellipsis).⁹

Along similar lines, David Cowart writes, “the Mason-Dixon Line becomes a powerful symbol for rationalism’s putting its mark on a land once consecrated to multiple perspectives” (139). Cowart thus amplifies Schaub’s understanding of the Line as primarily rooted in “the Age of Reason” by tying it to Enlightenment-era scientific thought. Moreover, Cowart sees *Mason & Dixon* as “an expansion of sentiments previously articulated in Pynchon’s 1984 article “Is it O.K. to be a Luddite?”” (139). One of those sentiments is the need to preserve “the perennial yearning for mystical possibility” from “scientific rationalism”: to “deny the machine” and affirm that we may just be “Bad and Big enough to take part in transcendent doings” (Cowart 140, “Luddite”). Cowart firmly implicates this project—the project of resisting scientific rationalism—to the preservation of subjunctive realms, noting a remark made by a denizen of the hollow earth to Dixon: “once the solar parallax is known... once the necessary Degrees are measur’d, and the

⁹ Compare this with Feyerabend’s claim that science may legitimately use theories drawn “from the lubrications of experts and from the fantasies of cranks” (*AM* 27). See also p. 3 of this essay.

size and weight and shape of the Earth are calculated inescapably at last, all this will vanish. We will have to seek another Space” (*Mason & Dixon* 741, Cowart 141, my ellipsis). In this episode, Dixon is brought into contact “with what his own science threatens with extinction” (140), and is thereby forced to witness the subjunctive realm which the scientific enterprise would collapse into the declarative.

4 Anarchistic Ontology

EA serves as a strong conceptual framework in which one may organize the aforementioned conclusions, for central to EA is the conviction that the world is a “largely unknown entity,” i.e., the world is a space itself teeming with subjunctive spaces. As such, it is more often than not the case that the best way to explore this multitude of spaces is by the proliferation and development of sometimes competing, sometimes co-operating theories: one theory will capture something possible, or will make intelligible the possibility of a given phenomenon, that another theory will either fail to capture, or even ignore—and thereby make that phenomenon “vanish” (*M&D* 741). It is only through the maintenance of mutually incompatible theories that the space under scrutiny will remain.

A few remarks on ontology seem appropriate here, given the inherent ontological ambiguity of subjunctivity (e.g., how does the subjunctive exist? What happens to subjunctivity when it “vanishes”?). In the aforementioned discussion of subjunctive spaces, the ontological status of such spaces was passed over in relative silence, save for McHale’s suggestion that, 1) there are “leakages” (52) between subjunctive spaces and the space we ourselves inhabit, and 2) one way a subjunctive realm—a hallucination, for instance—becomes a declarative realm is

simply by having a sufficient number of people buy into the reality of that realm. This relativistic understanding of reality has some affinities with EA.

EA suggests that theory and fact—theory and reality—have no true distinction outside the philosopher’s armchair (Feyerabend 19-20). As such, when we speak of the vanishing of the subjunctive realm, or of a subjunctive space, what is lost is nothing less than a whole way of understanding reality, which is, in turn, the loss of a reality (where we may understand “loss” more in the sense of “no longer in touch with” rather than “no longer exists”). It is not too farfetched to suggest that the impetus behind the destruction of the subjunctive is the belief that there is no such thing: there is only the declarative realm, which can only be properly studied by a particular kind of science (characterized by a particular method). This is the philosophy Uncle Ives gives voice to when he cries out, “Facts are facts” (*M&D* 350).

These last remarks hint at the ways in which the humanitarian concerns of EA dovetail nicely with the preceding discussion of subjunctivity in the above section. Cowart notes that both Mason and Dixon “attempt to be good eighteenth-century empiricists, men of reason, but neither can stop seeking evidence of magic and the supernatural” (143), and EA offers a way to reconcile their commitments to science with their personal quirks and experiences, particularly Mason’s dreams of Rebekah (Cowart 143, McHale 55-56, Pynchon 408-9 and 703-4). Mason’s dreams need not be regarded as hallucinations or as unreal, as a good scientist of the time might be forced to regard them. They may be regarded as real experiences worthy of serious inquiry through whatever methods Mason might deem fit.

We may also look at Nina Engelhardt’s remarks regarding *Mason & Dixon*’s treatment of geometry. Engelhardt notes that “*Mason & Dixon* highlights the culturally specific nature of numbers and mathematics” (197), particularly through the comparison of the Western division of

circles into 360 degrees¹⁰ with the division of the circle into 365.25 degrees favored by certain branches of Chinese thought. This suggests that mathematics itself—the “Queen of the Sciences” as Carl Friedrich Gauss called it—is a culturally conditioned activity, and that there are therefore many possible ways to understand mathematical objects such as circles: “The basic geometrical form is thus not immutable in Pynchon’s novel” (Engelhardt 198). The imposition of the Line, however, “[abolishes] such once possible conditions” (198) of multiple traditions of geometry. Thus, Engelhardt notes, “Enlightenment science... goes hand in hand with the colonial suppression of other cultures, conditions, and realities” (198). EA offers ways to frame what is at stake when Enlightenment science comes to supplant other traditions. Enlightenment science privileges a particular method (e.g., classical empiricism), and through its position as the dominant method, it comes to destroy those traditions characterized by other methods. These endangered traditions use methods of inquiry that are either founded upon or suggest a different type of reality. Enlightenment science thus comes to erase those realities to the detriment of all parties (but especially the non-dominant party).

5 Materialism, Mechanism, and Automata

EA provides a useful tool with which to examine subjunctivity in the novel, such as in the episode of *Mason & Dixon* where Armand Allègre narrates the story of Jacque de Vaucanson’s Duck¹¹ (*M&D* 371-381). The nature of automata is intimately related to arguments pertaining to

¹⁰ Other divisions of the circle include 2π radians and τ radians, and these divisions are reflective of a quasi-cultural divide not only between pure and applied mathematicians but between mathematicians and engineers. For a humorous debate about the relative merits of these divisions, the reader is advised to watch <https://www.youtube.com/watch?v=ZPv1UV0rD8U>.

¹¹ Throughout this section, I will variously refer to this being as the Duck, Vaucanson’s Duck, and Armand’s Duck.

materialism in the philosophy of mind, which Feyerabend discusses in connection with EA, particularly in an article entitled “Materialism and Mind-Body Problem.”

In the philosophy of mind, materialism is the thesis that material “stuff” (e.g., atoms) is all there is, and therefore the mind and all its contents are in principle explicable in terms of material stuff.¹² However, while the scientific paradigm of the 18th century was mechanical or mechanistic—and nature as a whole could be understood as operating by the same principles governing physical devices like mechanical clocks (Kwa 154-155)—it was far from generally accepted that humans and human activity could be explained in mechanistic terms. In his 1714 *Monadology*, Gottfried Leibniz writes,

if we suppose that there were a machine whose structure makes it think, feel, and have perception, we could imagine it increased in size while keeping the same proportions, so that one could enter it as one does with a mill. If we were then to go around inside it, we would see only parts pushing one another, and never anything which would explain a perception. (70)

Leibniz’s point is that the principles of mechanism are inadequate to explain features of consciousness such as thoughts, perceptions, desires, and so on. A mechanical device could never, in principle, be conscious. Granted this, Armand’s Duck is impossible: it would be impossible for an automaton or anything that operates according to mechanistic principles to develop consciousness. Nonetheless, the Duck is imbued with consciousness through the “final superaddition of erotick Machinery” (*M&D* 373). Thus Armand suggests the “Automatick Duck” to have been “brought to life by the kiss of... *l’Amour*” (373, Pynchon’s ellipsis). Mason has trouble believing this: he exclaims that the denizens of the current age will keep “Faith in a

¹² This is naturally a vast simplification of materialism.

Mechanickal Ingenuity.... even at the end of the Turn, when the latch is press'd and the Midget reveal'd" (*M&D* 449, my ellipsis). Mason thus elucidates his disbelief in the existence of the Duck's inner life by suggesting that there is a human (a "Midget") inside the Duck.

Even though materialism may be *prima facie* inadequate to explain the existence of consciousness, Feyerabend writes that we may "look for new natural interpretations, new facts, new grammatical rules, new principles which can accommodate materialism" (*AM* 123), since it is only by doing so that we may uncover the faults of "established modes of thinking" ("Materialism" 66). Thus, given EA, Mason is being wrong-headed: instead of flatly dismissing the Duck, we should be open and attentive to the possibilities she represents.

Just what those possibilities are is a matter of some speculation. We may start by noting that the Duck is characterized as a being either in the process of transcendence or as a being that has already achieved transcendence. McHale suggests that she has achieved "a higher order of Being, the duck equivalent of angelhood (55), and the novel bears that reading out. "As her Metaphysickal Powers increase," says Armand, "so do her worldly Resentments, real and imagin'd, the shape of her Destiny pull'd Earthward and rising Heavenward at the same time" (*M&D* 449), and Armand had earlier speculated, "if Angels be the next higher being from Man, perhaps the Duck had 'morphos'd into some Anatine Equivalent" (379). In one of the final appearances of the Duck, we are told, "She understands that she may now shift north or south, to any Latitude she likes, without being restricted any more to the Line and its Visto" (669), and her travels reveal to her Mason and Dixon's "minor tho' morally probemattick part" in the "Global Scheme" of the Line (669).

The Duck thus serves as an example of the extent to which a mechanistic being can achieve "Metaphysickal Powers" and Angelhood. Because the Duck's story is also an

anachronistic allusion to Mary Shelley's *Frankenstein* ("the old mad Philosopher... we all know [Vaucanson] meddl'd where he shouldn't have" (*M&D* 373, my ellipsis)), and Frankenstein's Creature is itself linked to Adam from Genesis and Satan from *Paradise Lost* (Shelley 90), we as readers are implicitly invited to participate in the Duck's transcendence—so long as we are willing to play along with materialism. This invitation to see the Duck's nature as reflective of our own is sharpened when we compare Armand's characterization of the Duck as being "pull'd Earthward and rising Heavenward" with Blaise Pascal's remarks on human nature: "What a chimera then is man!... Judge of all things, weak earthworm; repository of truth, sink of uncertainty and error; glory and garbage of the universe! (36, S164/L131, my ellipsis).

Note that this reading also reconciles materialism with Pynchon's apparent desire to "deny the machine." The danger that comes to mind is that if we accept materialism, we might find ourselves "degenerated into mere machinery" ("Luddite"). Pynchon notes that, "the laws of nature had not been so strictly formulated" ("Luddite") in the pre-Modern period, but they are now, and accepting materialism seems to mean accepting that these laws govern us. More disturbingly, insofar as we are rule-governed creatures, that means that we are more susceptible to control from the "permanent power establishment of admirals, generals and corporate [CEOs]" ("Luddite"). The story of Armand's Duck, viewed through EA, makes visible the subjunctive space of materialism, and within that subjunctive space, the possibility of transcendence (as opposed to determinism).

Aside from the Duck, *Mason & Dixon*'s other central mechanism, or class of mechanisms, is the clock. In St. Helena, two clocks talk to one another (*M&D* 121-123), and along the Line, one of the accompanying surveyors eats Dixon's watch, which itself is a perpetual motion machine and a gift from Dixon's teacher, Emerson (318, 322). There is also

Harrison's marine chronometer (201, 213), designed in order to help sailors calculate longitude at sea, a hitherto unsolved technical problem. It is to this clock that we will now turn our attention.

The Longitude Act of 1714 was enacted to encourage the development of methods of determining longitude at sea. In brief, the problem depends upon finding an accurate way to measure time at sea: if one can tell what time it is in London, regardless of one's current position, then, at noon, one can check what time it is in London. This difference in time corresponds to a difference in longitude (Ereira 5). Simon Schaffer notes that Isaac Newton "insisted astronomy was required to find longitude"—particularly through the observations of either the moons of Jupiter or the Earth's moon. Katy Barret likewise notes that "timekeepers were considered the least promising of the potential means for finding longitude at sea." However, clockmaker John Harrison was able to design such a "timekeeper," which was successfully tested on a voyage from England to Portugal. In *Mason & Dixon*, Mason, a "Lunarian" like Isaac Newton, laments that "soon enough, sturdier offspring of Mr. Harrison's Watch will be showing their noontide Faces all about the Fleets, and Lunars will have had their day" (301). This movement from astronomical methods to mechanical methods of determining longitude is suggestive of McHale's comments discussed earlier, in which the movement from "verticality" and "transcendence" to "this-worldliness" corresponds to a movement from authoritarian and top-down organization to "democracy in political philosophy, and to a metaphysics of this-worldliness" (McHale 59). Naturally, however, this movement to "this-worldliness" need not require the acceptance of "the machine," as suggested by the talking clocks. Like the Duck, they both wholly are mechanistic and "this-worldly", but still a subjunctive surprise.

6 Dream-Worlds

In one of the more poetic passages of *Against Method*, Feyerabend writes, “*we need a dream-world in order to discover the features cf the real world we think we inhabit* (and which may actually be just another dream-world)” (15, Feyerabend’s italics). Feyerabend’s point is provocative, and his use of the term “dream-world” is no doubt metaphorical. It is, however, instructive and highly relevant given that one of McHale’s subclasses of subjunctive spaces in *Mason & Dixon* are “Dream-Spaces” (51).

The dream that McHale singles out is Mason and Dixon’s shared hallucination of the “giant vegetables to be found growing somewhere “West of Cheat”” (McHale 52, *M&D* 655-57), and, similarly as in the case of the Duck, it is suggested that the vegetables have some semblance of consciousness (“We are as Garden Pests, to It. It suffers us. We being unworthy of Its full Attention” (*M&D* 657)), and not only consciousness but mental attitudes such as resentment: “Do they have a concept of Revenge, perhaps for insults we never intended?” (657).

Another striking dream sequence, also discussed by McHale and occurring far earlier in the novel, is the sequence in which Mason “confiscates a dagger from a figure who threatens him in dreams” (McHale 52, *M&D* 70-72). As noted above, what is unique about this dream is that it leaves a trace in what is ostensibly the real world: namely, the dagger that Mason confiscates from the dream assailant is there when Mason wakes up. Also unique is the cultural context: Mason is directed to speak with Toko, and it is from Toko that he learns that the Senoia people treat dreaming life “as real as their waking one.... Offering advice and opinions *passim* as if all the fantastical beings and events be but other villagers, and village Gossip” (*M&D* 70-71). This is

set in contrast against Mason's, and Enlightenment Europe's, treatment of dreams: "we deny ev'rything we may witness during that third of our Precious Span allotted" (71). In treating the dream world as a waking world, the dream world is permitted to influence one's reading of the waking world. Mason and Dixon come together "to share the *Data* of their Dreams" (71), and each use their dreams to discover features of the waking world: Mason's dreams suggest to him that the world of Cape Hope is a Hell-world, whereas Dixon views it with a little more optimism (71). Moreover, when the reader is invited to inspect the blade of the knife taken from Mason's dream assailant, the narrative states, "'tis not a Virgin Blade,— tiny Scratches, uncleansable Stains, overlie one the other in a Palimpsest running deep into the Dimension of Time" (72). The image a palimpsest running deep into time suggests a process of constant revision and rewriting, and further serves as a physical manifestation of the dream and waking worlds interacting with one another—using themselves to discover each other—over the course of time. It suggests, more generally, the interactions of subjunctive spaces over the course of time.

Returning to that passage that begins, "Does Britannia, when she sleeps, dream? Is America her dream?" (345), it seems that the thrust is ultimately pessimistic, since the process of Westward expansion ultimately ends in "despair": the process of recording, measuring, and tying back all the hitherto unknown points into that which is already known ends in "reducing Possibilities to Simplicities that serve the ends of Governments." The move from the subjunctive to the declarative is seemingly inexorable, and the dream-world—the subjunctive realm—is little more than a "Rubbish-tip," a junkyard or repository for that which will ultimately be destroyed by the encroachment of the declarative. However, there may be some light yet found in this passage. The subjunctive realms described in this passage, insofar as they are Britannia's dream, just might "leak" (McHale 52) into the waking world, or at the very least serve as realms by

which we may “discover the features of the real world.” McHale notes that “many of Mason’s and Dixon’s early daydreams involve imagined landscapes.... They will encounter the real-world versions of these landscapes when they finally reach America” (53). This suggests that these dream spaces help either construct, or anticipate, or shape their corresponding waking spaces—they are essential to the project of negotiating, or discovering the features of the waking world. This is especially true if the project of recording, measuring, and tying back all the dream spaces into that network of points is done with a Cherrycoke-esque “Tangle of Lines, long and short, weak and strong” (349), all woven by the “fabulists and counterfeiters, Ballad-Mongers, and Cranks of ev’ry Radius, [and] Masters of Disguise” (350).

In *Gravity’s Rainbow*, the narrator discusses August Kekulé’s discovery of the structure of benzene, and it is salient that the discovery was suggested first in a dream (*GR* 418-419). Feyerabend notes that a more traditional philosophy of science would demarcate between the context of discovery and the context of justification: in the latter, all kinds of accidents and strange events may occur, but in the latter, things must proceed “in an orderly way” (*AM* 149). Kekulé’s dream would thus firmly belong to the context of discovery, and while useful for the practice of science, the dream should not be treated as a part science proper. Feyerabend suggests this distinction between the two contexts is ultimately artificial, and that scientists like Kekulé “interpret the evidence so that it fits their fanciful ideas, eliminate difficulties by *ad hoc* procedures, push them aside, or simply refuse to take them seriously.... Scientific practice... is a complicated *mixture* of procedures” (*AM* 150-151, my ellipses). Feyerabend admits that, “the most surprising stories about the manner in which scientists arrive at their theories cannot exclude the possibility that they proceed in an entirely different way once they have found them,” but quickly states, “this possibility is never realized” (150). Feyerabend thus suggests

that, in the case of Kekulé's dream for instance, dreams—or the visions seen in dreams—can legitimately serve as part of the scientific process. Feyerabend would likely suggest that it is not even a question of legitimacy—dreams in fact *do* serve as part or precursor of the scientific process, and this is hinted at by *Mason & Dixon*.

7 “An Anarchist Miracle”

“You know what a miracle is,” says Jesús Arrabel to Oedipa Maas in *The Crying of Lot 49*, “... another world's intrusion into this one” (97). More than that, however, a miracle is when “the soul's talent for consensus allows the masses to work together without effort, automatic as the body itself” (*Lot 49* 97). Jeffrey Howard notes that Pynchon's “concern with miraculous, otherworldly occurrences extends throughout Pynchon's career and culminates in *Mason & Dixon*” (166). Taking this body of quotation as a whole, the miraculous in *Mason & Dixon* can be seen as two worlds coming into contact (perhaps peacefully, perhaps cataclysmically (*Lot 49* 97)) and then proceeding to work together in an effortless manner. Much of *Mason & Dixon* is spent lamenting the failure of two worlds (or many worlds) coming to work together. The novel is preoccupied with the ways in which European settlers—and Enlightenment science—destroyed the worlds they contacted.

Feyerabend's terms “open exchange” and “guided exchange” were briefly mentioned above. Returning to them here, we may first characterize a “guided exchange” as an exchange in which “all participants adopt a well-specified tradition and accept only those responses that correspond to its standards” (*AM* 237). We may then characterize the anarchist miracle—the mutual intrusion of worlds into one another, and their working together—as a paradigmatic open

exchange, if not a possible definition of open exchange. For Feyerabend, an open exchange is one in which “participants get immersed into each other’s ways of thinking, feeling, perceiving to such an extent that their ideas, perceptions, world-views may be entirely changed” (*AM* 237). Of great importance is that the “tradition adopted by the parties is unspecified in the beginning and develops as the exchange proceeds” (237). Open exchanges are then “spontaneous and leaderless” (*Lot* 49 97), being neither led nor guided by rules, persons, or hierarchies. Open exchanges are “anarchist miracles,” and these are just what EA strives for.

8 Conclusion

Thomas Kuhn (a colleague and good friend of Feyerabend)¹³ notes that the practice of science inevitably results in the production of “anomalies,” or findings that are not expected under whatever dominant theory or body of theories (52). They are perhaps the subjunctive objects *par excellence*, objects that, when especially unexpected, require the development of new theories to explain. Such anomalies are littered throughout *Mason & Dixon*, from Armand’s Duck to the Zepho the Werebeaver to the perpetual motion clock: entities that neither Mason nor Dixon can cope with using only the resources of the science of the day. On the most general level, EA offers a way to understand these anomalies within the novel. First, EA suggests that rigorous adherence to accepted scientific practice would prevent us—or the characters—from truly appreciating and understanding the objects under question. Moreover, EA suggests that rigorous adherence to accepted practice results in the destruction of both the objects and the ways in which one can most fruitfully encounter said objects. Given that these objects exist in

¹³ In Feyerabend’s last interview before his death in 1994, he said, “I learnt a lot from [Kuhn]. He was my colleague in Berkeley. We have become very good friends” (*The Worst Enemy of Science?* 163).

the realm of the subjunctive, EA thus provides a framework for both understanding and preserving the realm of the subjunctive.

Other than a few passing references to *Gravity's Rainbow* and *The Crying of Lot 49*, I have stuck almost entirely to *Mason & Dixon* here: but Pynchon's interest in science (and anarchism!) is certainly not limited to either, as has been certainly evident from the selections. I would like to suggest that EA might serve as a powerful tool for understanding the interplay between scientific practice, scientific ideology, and political power in those novels (e.g., *Against the Day*) concerned with how science can be used alternatively as a tool for authoritarian oppression and anarchistic liberation.

Works Cited

- Barrett, Katy. "H1, H2, H3, and H4." *Longitude Essays*. Cambridge Digital Library, <https://cudl.lib.cam.ac.uk/view/ES-LON-00010>.
- Chalmers, Alan. "Atomism from the 17th to the 20th Century." *Stanford Encyclopedia of Philosophy*, Spring 2019 edition, <https://plato.stanford.edu/entries/atomism-modern/>. Accessed 23 February 2021.
- Cowart, David. "The Luddite Vision." *Thomas Pynchon and the Dark Passages of History*, U of Georgia P, 2012, pp. 136-158.
- Engelhardt, Nina. "Scientific Metafiction and Postmodernism." *Zeitschrift für Anglistik und Amerikanistik: A Quarterly of Language, Literature and Culture*, vol.64, no. 2, 2016, pp. 189-205. De Gruyter, doi:10.1515/zaa-2016-0018. Accessed 14 April 2020.
- Ereira, Alan. "Longitude: The Hidden Evidence." *History Today*, vol. 50, no. 1, 2000, pp. 4-5.
- Feyerabend, Paul. *Against Method*. 4th ed., Verso, 2010.
- . "Materialism and the Mind-Body Problem." *The Review of Metaphysics*, vol. 17, no. 1, 1963, pp. 29-68. JSTOR, <https://www.jstor.org/stable/20123984>. Accessed 17 February 2021.
- Howard, Jeffrey. "The Anarchist Miracle and Magic in *Mason & Dixon*." *Pynchon Notes*, no. 52-53, 2003, pp. 166-184. <https://doi.org/10.16995/pn.58>.
- James, William. "The Will to Believe." *Writings 1878-1899*, Library of America, 1992, pp. 457-479.
- Kuhn, Thomas. *The Structure of Scientific Revolutions*. 4th ed., U of Chicago P, 2012.
- Leibniz, Gottfried Wilhelm von. *Leibniz's Monadology: A New Translation and Guide*. Edited

- by Lloyd Strickland, Edinburgh UP, 2014. *JSTOR*,
<https://www.jstor.org/stable/10.3366/j.ctt1g0b6qt.10>. Accessed 18 Feb. 2021.
- McHale, Brian. "Mason & Dixon in the Zone, or, A Brief Poetics of Pynchon-Space." *Pynchon and Mason & Dixon*, edited by Brooke Horvath and Irving Malin, U of Delaware P, 2000, pp. 43-62.
- Pascal, Blaise. *Pensées*, edited and translated by Roger Ariew, Hackett, 2004.
- Preston, John, et al. *The Worst Enemy of Science? Essays in Memory of Paul Feyerabend*. Oxford UP, 2000.
- Pynchon, Thomas. *The Crying of Lot 49*. HarperCollins, 2006.
- . *Gravity's Rainbow*. Penguin, 2006.
- . "Is It O.K. to be a Luddite?" *The New York Times*, 28 Oct. 1984,
<https://archive.nytimes.com/www.nytimes.com/books/97/05/18/reviews/pynchon-luddite.html?>. Accessed 22 Dec. 2020.
- . *Mason & Dixon*. Picador, 1997.
- Sargent, Rose-Mary. General Introduction. *Selected Philosophical Works*, by Francis Bacon, edited by Rose-Mary Sargent, Hackett, 1999, pp. vi-xxxviii.
- Savvas, Theophilus. "Pynchon Plays Dice: Mason & Dixon and Quantum History." *Literature and History*, vol. 20, no. 2, 2011, pp. 51-67. *EBSCOhost*, doi:10.7227/lh.20.2.4.
- Schaffer, Simon. "Isaac Newton." *Longitude Essays*. *Cambridge Digital Library*,
<https://cudl.lib.cam.ac.uk/view/ES-LON-00011>.
- Schaub, Thomas H. "Plot, Ideology, and Compassion in *Mason & Dixon*." *Contemporary Literary Criticism*, edited by Jennifer Stock, vol. 448, Gale, 2019. *Gale Literature Resource Center*,

link.gale.com/apps/doc/H1100126882/LitRC?u=fair43885&sid=LitRC&xid=0305e262.

Accessed 17 February 2021. Originally published in *Fynchon and Mason & Dixon*,

edited by Brooke Horvath and Irving Malin, U of Delaware P, 2000, pp. 189-2020

Shelley, Mary. *Frankenstein*, edited by J. Paul Hunter, Norton, 2012.

Skeen, Bradley A. "EMERALD TABLET: DOCUMENT ANALYSIS ca. 500–700

CE." *Milestone Documents of World Religions*, edited by Grey House Publishing, Salem

Press, 2nd ed., 2017. *Credo Reference*,

<http://uaf.idm.oclc.org/login?url=https://search.credoreference.com/content/entry/greymd>

[wr/emerald_tablet_document_analysis_ca_500_700_ce/0?institutionId=5478](http://uaf.idm.oclc.org/login?url=https://search.credoreference.com/content/entry/greymd/wr/emerald_tablet_document_analysis_ca_500_700_ce/0?institutionId=5478). Accessed 1

Mar 2021.