## "The Colour out of Space": Lovecraft on Induction

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We owe the sceptical problem of induction to David Hume. How do we know that regularities in nature will persist? That observation is a guide to the unobserved? To reason inductively is to infer that properties correlated in the past will be correlated in the future. Both ordinary life and scientific inquiry depend on that assumption. Hume warns us that it may not hold: "The bread, which I formerly eat [*sic*], nourished me; that is, a body with such sensible qualities, was, at that time, endued with such secret powers: But does it follow, that other bread must also nourish me at another time, and that like sensible qualities must always be attended with like secret powers? The consequence seems nowise necessary."

That patterns project from what we have observed to what we have not is a contingent fact; we can imagine otherwise. To engage in inductive reasoning is to discount that imagining, to "proceed upon the supposition, that the future will be conformable to the past" (Hume, p. 23). What warrants that presumption? It is not something we know *a priori*, independent of experience, as we know the necessary truths of logic or mathematics. If it happens to be true, it is an empirical fact. But to argue for the premise on inductive grounds—since induction has worked before, it will work again—"must evidently be going in a circle, and taking that for granted, which is the very point in question" (Hume, p. 23).

<sup>&</sup>lt;sup>1</sup> David Hume, *Enquiry Concerning Human Understanding*, ed. Eric Steinberg (Indianapolis, IN: Hackett, 1993), p. 21.

Thus the epistemic problem of induction. Unless we are entitled to believe that the future will resemble the past, we are not justified in our use of inductive reasoning. But the only credible source of such entitlement is induction. It follows that we have no right to reason inductively: the foundations of science and of ordinary life collapse.

The curious thing about Hume is that he never contemplates this conclusion. He placidly allows that "the one proposition [about the future] may justly be inferred from the other [about the past]" and that "these [are] reasonings, on which almost all knowledge depends" (Hume, pp. 22, 27). In fact, Hume does not see an epistemic problem. Readers have been misled by his insistence that inductive conclusions "are *not* founded on reasoning, or any process of the understanding" (Hume, p. 21). Hume means that they are not products of demonstrative proof or reasoning, not that they are unjustified. His topic is not our entitlement to inductive inference but its psychology.<sup>2</sup> He denies that induction is the province of demonstrative, induction needs no similar assumption. Inductive reasoning is the product of habitual association or conditioning. Having eaten bread before, I associate the look and smell of bread with the satisfaction of hunger and so expect to be nourished again. While he calls this a "sceptical solution," Hume never doubts the "the authority of experience … that great guide to human life" (Hume, p. 23).

For Hume, then, the sceptical problem of induction is neither sceptical nor a problem. The surprise is not that he questions our inductive knowledge, about which he is perfectly complacent, but that he comes so close to an epistemic puzzle that has troubled subsequent philosophers—by what right do we discount the possibility that the future will not resemble the past?—only to be indifferent to it. Hume is oddly sanguine about the idea that scientific knowledge rests on mere facts of human psychology, on how we happen to project from past to future. He does not seem to think this tendency calls for justification or to worry that our tendencies may differ. Instead, he

<sup>&</sup>lt;sup>2</sup> For elaborations of this point, see Don Garrett, *Cognition and Commitment in Hume's Philosophy* (Oxford: Oxford University Press, 1996) and David Owen, *Hume's Reason* (Oxford: Oxford University Press, 1999).

offers a mundane account of the mechanics of induction that appeals to custom and habit. As Nelson Goodman would observe, two centuries later: "Hume's answer to the question how predictions are related to past experience is refreshingly non-cosmic."<sup>3</sup>

Hume's complacency provides a context for the cosmic vision of H. P. Lovecraft (1890– 1937). Lovecraft's synthesis of horror and science fiction has been read as an allegory of his metaphysics: of mechanistic materialism, the denial of purpose or teleology, and the insignificance of humankind in a vast, indifferent cosmos.<sup>4</sup> Lovecraft had a serious interest in philosophy, from Democritus and Lucretius through Schopenhauer and Nietzsche to Bertrand Russell. Yet, according to S. T. Joshi, the leading authority on Lovecraft, "epistemology was the weakest area of his philosophical thought, simply because he did not pay much attention to it."<sup>5</sup>

Did Lovecraft share in Hume's complacency? Yes and no. Like Hume, he did not question the authority of induction, its power to yield probable conclusions. Unlike Hume, he was alarmed by its contingency, by the fact that it could fail and by the ways in which it rests upon the accidents of human nature. Beside the epistemic problem of induction, there is the existential problem how to feel about the vulnerability of our epistemic estate: a problem most philosophers neglect. This problem inspired one of Lovecraft's most powerful stories, "The Colour out of Space" (1927), a window on the affective world of our inductive frailty.<sup>6</sup>

There is no evidence that Lovecraft read Hume, though he might have done so (Joshi, p. 318). A more plausible source for his epistemology is the work of George Santayana, whom he

<sup>&</sup>lt;sup>3</sup> Nelson Goodman, *Fact, Fiction, and Forecast* (Cambridge, MA: Harvard University Press, 1955), p. 60.

<sup>&</sup>lt;sup>4</sup> See Fritz Leiber, "A Literary Copernicus" (1949), reprinted in *H. P. Lovecraft: Four Decades of Criticism*, ed. S. T. Joshi (Athens, OH: Ohio University Press, 1980), pp. 50–62, and Richard L. Tierney, "Lovecraft and the Cosmic Quality in Fiction" (1976), reprinted in Joshi, ed., *Four Decades*, pp. 191–5.

<sup>&</sup>lt;sup>5</sup> S. T. Joshi, *I am Providence: The Life and Times of H. P. Lovecraft* (New York, NY: Hippocampus Press, 2010), p. 319; on Lovecraft's philosophical background, see Joshi, pp. 316–8, 326–8, 766.

<sup>&</sup>lt;sup>6</sup> H. P. Lovecraft, "The Colour out of Space," in *The Call of Cthulhu and Other Weird Stories*, ed. S. T. Joshi (London: Penguin, 1999), pp. 170–99; hereafter cited by page number alone.

called, in a letter, "the greatest living philosopher (who is a poet as well)."<sup>7</sup> At the time, Lovecraft's judgement would not have seemed eccentric. Will Durant's 1926 bestseller, *The Story of Philosophy*, which Lovecraft knew, ranked Santayana with John Dewey and William James among the giants of American philosophy.<sup>8</sup> Lovecraft advised his correspondent to "[begin] with his *Scepticism & Animal Faith*," which was published in 1923, the year in which Lovecraft first cites Santayana, in his "President's Message" to the National Amateur Press Association.<sup>9</sup> In *Scepticism and Animal Faith*, Santayana presents an epistemology not unlike Hume's.<sup>10</sup> If we confine ourselves to what is demonstrable or certain, we are left with nothing; in that sense, the sceptic is right. Knowledge of material objects, of the future, even of ourselves, depends on "animal faith," an adaptive propensity to go beyond what is given to us: to assume a material world; to infer that bread will nourish us because it has nourished us before. Santayana echoes Hume's complacency. His point is not to question animal faith but to identify its role in our cognition.

In letters to Fritz Leiber written in his final months, Lovecraft outlines an epistemology indebted to Santayana, though more tentative and pessimistic. "Ability to perceive and infer, a quality at first developed solely in the interest of primitive needs & gratifications," he writes, "is constantly at the mercy of the crude instincts & emotions which called it forth."<sup>11</sup> Using this ability as we must, "[we] can never know how far our kind of natural law holds good in the gulfs of space

<sup>&</sup>lt;sup>7</sup> H. P. Lovecraft, letter to Elizabeth Toldridge, April 24, 1930, in H. P. Lovecraft, *Selected Letters III:* 1929–1931, ed. August Derleth and Donald Wandrei (Sauk City, WI: Arkham House, 1971), p. 146; hereafter abbreviated *SL III*.

<sup>&</sup>lt;sup>8</sup> Will Durant, *The Story of Philosophy: The Lives and Opinions of the World's Greatest Philosophers* (New York, NY: Simon & Schuster, 1926).

<sup>9</sup> H. P. Lovecraft, "President's Message" (1923), in H. P. Lovecraft, *Collected Essays, Volume 1: Amateur Journalism*, ed. S. T. Joshi (New York, NY: Hippocampus Press, 2004), pp. 337–343 (340).

<sup>&</sup>lt;sup>10</sup> George Santayana, *Scepticism and Animal Faith* (New York, NY: Charles Scribner's Sons, 1923). Santayana would dispute the resemblance, but he misreads Hume; see Santayana, pp. 294–5.

<sup>&</sup>lt;sup>11</sup> H. P. Lovecraft, letter to Fritz Leiber, December 19, 1936, in H. P. Lovecraft, *Selected Letters V: 1934–1937*, ed. James Turner (Sauk City, WI: Arkham House, 1976), p. 378; hereafter abbreviated *SL V*.

and time, or when some manifestation of it will change.<sup>712</sup> We cannot know for sure, but we can rationally conjecture. Where Lovecraft differs from Santayana is not in doubting scientific probability but in being disappointed to fall back on animal faith. The intense desire for certainty, "that burning & inextinguishable feeling of mixed wonder & oppression which the sensitive imagination experiences upon scaling itself & its restrictions against the vast & provocative abyss of the unknown" which Lovecraft elsewhere called "the chief emotion in my psychology," fuels the anxiety of not knowing.<sup>13</sup> It is this fear that animates "The Colour out of Space."

In Lovecraft's story, an unnamed narrator travels west of the fictional New England town of Arkham to survey the site of a prospective reservoir. Disturbed by the silent, ash-grey landscape of the "blasted heath" that will house the reservoir, the surveyor is led to Ammi Pierce, a local farmer who recounts the history of the "strange days" (p. 170). Forty years ago, a meteor fell on Nahum Gardner's farm. It baffled scientists with its peculiar colours and erratic properties and quickly disappeared into the earth. The next year brought unnatural abundance, greying blight, decay, and death. The Gardners went to pieces; Ammi could do nothing; and while a part of the meteor lodged in the Gardner well shot back into space, something was left behind.

What happens on the farm is, to begin with, an inductive failure. It is not just that the scientists who come from Miskatonic University to take a sample of the meteor cannot make sense of its queer properties, but that the course of nature swerves: "The pears and apples slowly ripened, and Nahum vowed that his orchards were prospering as never before. The fruit was growing to phenomenal size and unwonted gloss, and in such abundance that extra barrels were ordered to handle the future crop. But with the ripening came sore disappointment; for of all that gorgeous array of specious lusciousness not one single jot was fit to eat" (p. 177).

<sup>&</sup>lt;sup>12</sup> H. P. Lovecraft, letter to Fritz Leiber, November 18, 1936 (*SL V*, pp. 356–7). There is a somewhat less transparent expression of similar ideas in a letter to Donald Wandrei of May 19, 1927, shortly after Lovecraft wrote "The Colour out of Space"; see *Mysteries of Time and Spirit: The Letters of H. P. Lovecraft and Donald Wandrei*, ed. S. T. Joshi and David E. Schultz (San Francisco, CA: Night Shade Books, 2005), pp. 103–4.

<sup>&</sup>lt;sup>13</sup> Lovecraft, letter to Frank Belknap Long, February 27, 1931 (SL III, p. 294).

"Disappointment" can be merely epistemic: the defeat of expectation. Here it is dismal, as is "unwonted" for unaccustomed, a pun on "unwanted" or undesired. The skunk-cabbages follow the fruit: "Never were things of such size seen before. ... Their shapes were monstrous, and the horse had snorted at an odour which struck [its rider] as wholly unprecedented" (p. 178). The foliage "blossomed forth in strange colours" and "the insects ... seemed not quite usual in their aspects and motions, and their nocturnal habits contradicted all former experience" (p. 179). The strangely coloured plants soon darken, "and the fruit was coming out grey and dwarfed and tasteless" (p. 182). Disease spreads unaccountably to the cows in "a locked and undisturbed barn" (p. 184).

For Hume, it is by imagining the failure of induction that we reveal its ineluctable contingency. "May I not clearly and distinctly conceive," Hume asks, anticipating Lovecraft's meteor, "that a body, falling from the clouds, and which, in all other respects, resembles snow, has yet the taste of salt or feeling of fire?" (Hume, p. 22) In "The Colour out of Space," the extent of imaginative power predicts the severity of trauma. When Nahum's youngest son goes mad, we are told that "Merwin was getting frightfully imaginative" (p. 183). If Ammi is still sane, he was "lucky ... that he was not more imaginative" (p. 184). And as his mind and body crumble, "Nahum was past imagining": past being imagined, no longer able to imagine, passing through imagination to a terrible condition of belief (p. 185). "Something was creeping and creeping and waiting to be seen and felt and heard," the narrator warns, recalling his account of why the blasted heath is shunned: "It is not because of anything that can be seen or heard or handled, but because of something that is imagined" (pp. 185, 170). These sentences play with disruptions of pattern and rhythm, as a constant conjunction of dactyls ("creeping and creeping and waiting to") yields abruptly to iambs ("be seen and felt and heard") and the trochees of "seen or heard or handled" fragment in something imagined.

There is horror in ever-present possibility of failed induction, a collapse in the expected order of things that is manifest in the swollen, toxic fruit of Nahum's farm. But the shock of the unexpected plays an ambivalent role in inquiry. For Santayana, the prospect of empirical knowledge becomes "evident when [the course of inner experience] is interrupted by *shocks*. ... I may suffer a sort of momentary and conscious death, in that I survive to feel the extinction of all that made up my universe, and to face a blank, or a precipice. ... Experience of shock, if not utterly delusive, ... establishes the validity of memory and of transitive knowledge. It establishes realism" (Santayana, pp. 139, 142). Realism, here, means belief in a material world: "Animal faith, being an expression of hunger, pursuit, shock, or fear, is directed upon *things*; that is, it assumes the existence of alien self-developing beings, independent of knowledge" (Santayana, p. 214). Our sense of reality itself turns on the recalcitrance of experience, its power to frustrate our expectations.

In *Wonder, the Rainbow, and the Aesthetics of Rare Experiences*, Philip Fisher associates the shock of the unprecedented with the wonder in which (for Plato) philosophy begins.<sup>14</sup> Wonder is the engine of scientific curiosity, "the hospitality of the mind or soul to newness, but only where the security of the self has already been secured so deeply that security, a feeling implying the reality of fear, but its suspension, can itself be forgotten" (Fisher, p. 49). The thrill of the unexpected turns on our general success in coming to explanations: the fact that curiosity is often met. As Fisher writes, "the balance between fear and pleasure in the face of the unknown is an empirical fact in that it depends on a history of intellectual success and an atmosphere of almost cosmic, as opposed to social, peace" (Fisher, p. 50).

The meteor is not at first a source of terror: "Stubbornly refusing to grow cool, [the professors' sample] soon had the college in a state of real excitement; and when upon heating before the spectroscope it displayed bands unlike any known colours of the normal spectrum there was much breathless talk of new elements, bizarre optical properties, and other things which puzzled men of science are wont to say when faced by the unknown" (pp. 174–5). Even as the scientists give up, confounded—mocked as "wise men" and "sages"—Ammi's attitude remains "essentially scientific," as does that of the narrator, who calls for chemists and botanists to study

<sup>&</sup>lt;sup>14</sup> Philip Fisher, *Wonder, the Rainbow, and the Aesthetics of Rare Experiences* (Cambridge, MA: Harvard University Press, 1998).

the blasted heath (pp. 174–5, 192, 197–8). Superimposed on the failure of "our kind of natural law" is the implication of others.<sup>15</sup> The meteor "was nothing of this earth, but a piece of the great outside; and as such was dowered with outside properties and obedient to outside laws" (p. 176).<sup>16</sup> These laws fix the relentless progress of pollution and insanity on Nahum's farm. The problem of induction is not simply the problem we inherit from Hume, that the future may not resemble the past, but the problem that, even if it does, the measures of resemblance may not be ours.

In recent philosophy, the classic exposition of the latter problem is Nelson Goodman's "new riddle of induction." Goodman splices "green" and "blue" to make "grue," which he defines as follows: an object is grue just in case it has been observed before a certain time, say 2037, and is green; or is blue and has not been observed before that time (Goodman, pp. 73–4). (By a happy coincidence of nomenclature, "grue" is an archaic term for the shiver of fear.) At first glance, the pattern of inductive inference seems simple: a generalization is confirmed by its instances. We infer that all emeralds are green from the fact that every emerald we have observed is green. But every emerald we have observed has also been grue. Why should we not infer that the same is true of other emeralds? On this hypothesis, the emeralds we first observe after 2037 will be blue. The inference seems bad. As Goodman argues, some concepts, such as green, are apt to figure in inductive reasoning; others, such as *grue*, are not. Not every generalization is confirmed by its instances. Once we see this, we can ask a sceptical question. By what right do we assume that the concepts used in our inductive reasoning are like *green*, not *grue*? By what right do we assume that, in Plato's metaphor, they carve the beast of nature at the joints?<sup>17</sup> Goodman suggests that concepts figure in "lawlike" generalizations, confirmed by their instances, when they correspond to predicates entrenched in our vocabulary. He is as sanguine about this suggestion-that

<sup>&</sup>lt;sup>15</sup> Lovecraft, letter to Fritz Leiber, November 18, 1936 (SL V, pp. 356–7).

<sup>&</sup>lt;sup>16</sup> See also the penultimate paragraph: "In terms of matter I suppose the thing Ammi described would be called a gas, but this gas obeyed laws that are not of our cosmos" (p. 199).

<sup>&</sup>lt;sup>17</sup> Plato, *Phaedrus*, transl. Alexander Nehamas and Paul Woodruff (Indianapolis, IN: Hackett, 1995), 265e.

scientific knowledge rests on sociological facts—as Hume is sanguine about his appeal to human nature. Others are more disturbed.

Is it anachronistic to suggest that Lovecraft was among them? Did he worry that our ways of carving up the world might be parochial? There is reason to think he did. The idea that there are different patterns of inductive inference, different forms of animal faith that draw on different categories, can be found in Santayana: "The environment determines the occasions on which intuitions arise, the psyche—the inherited organization of the animal—determines their form, and ancient conditions of life on earth no doubt determined which psyches should arise and prosper; and probably many forms of intuition, unthinkable to man, express the facts and rhythms of nature to other animal minds" (Santayana, p. 88). For Santayana, it is not just the consciousness of different animals that might be inaccessibly different from ours but the "rhythms of nature" to which those animals respond. This idea is amplified in Lovecraft's letters: "Even the world of a cat is highly different from ours, while the world of a beetle is abysmally different from either. The world of an organism on another planet—especially one in another galaxy—is so different from anything we can conceive that we would probably have difficulty in identifying any of its attributes beyond the simplest abstractions of time, space, & change."<sup>18</sup> What if these alien attributes are lawlike, so that the mechanics of nature are beyond us?

This is what Lovecraft imagines in "The Colour out of Space." When the professors uncover a globule in the meteor, its "colour, which resembled some of the bands in the meteor's strange spectrum, was almost impossible to describe; and it was only by analogy that they called it colour at all" (pp. 175–6). Apart from the resemblance to the meteor, something similar might be said of Goodman's grue. And yet the colour plays a role in "outside laws" (p. 176).

From the start, the narrator is preoccupied by the match or mismatch between language and the world, between our concepts and the joints in nature. "The name 'blasted heath' seemed

<sup>&</sup>lt;sup>18</sup> Lovecraft, letter to Elizabeth Toldridge, November 26, 1929 (*SL III*, p. 86). See also Lovecraft's letters to Fritz Leiber (*SL V*, pp. 377–8). Santayana mentions extraterrestrials, too: "imagine what may be the lives of creatures in other parts of the stellar universe, or out of any relation with ourselves at all" (Santayana, p. 236).

to me very odd and theatrical," he complains, alluding to *Macbeth* (p. 171). Yet arriving at the heath, he admits "no other name could fit such a thing or any other thing fit such a name" (p. 171). The phrase "blasted heath" is used six times in the first three pages; so is "strange days." The effect is akin to semantic satiation, as a word incessantly repeated comes to sound like meaningless noise; the familiar becomes strange.

Strange, too, is the narrator's diction: anomalous even in Lovecraft's ponderous prose. It is the language of someone wrestling an intractable world into arcane categories, one for whom conventional idioms fail. The meteor was "dowered" with outside properties; "dower" is a word for dowry but also for the property granted to a widow on the death of her husband (p. 176). The herb that comes out strangely coloured in the spring is "saxifrage," from the Latin saxum, meaning rock and frangere, to break (p. 176). "No sane wholesome colours were anywhere to be seen except in the green grass and leafage; but everywhere those hectic and prismatic variants of some diseased, underlying primary tone without a place among the known tints of earth" (p. 180). "Hexis" is the Greek word for habit, the ground of induction for Hume, but "hectic" connotes not just habitual but consumptive, the slow wasting of tissue, fever. It can be used for the flushed colour of the diseased. When the light of the meteor leaves "the rim of that nefandous well"-"nefandous" having Latin roots, meaning "not to be spoken of"-it is surrounded by "a mounting wind which seemed to sweep down in black, frore gusts from interstellar space" (pp. 197, 196). Lovecraft's dictionary, the 1864 edition of Webster's, cites *Paradise Lost*: "The parching air / Burns frore and cold performs the effect of fire."19 So "frore" means frozen yet recalls Hume's body from the clouds, resembling snow but scorching like a flame.

Where Lovecraft's narrator struggles to conform his words to the cosmic otherness of the events on Nahum's farm, its inhabitants go mad. Insanity transforms their speech, intimating alien concepts, new ways to parse reality. Nahum's wife is first to go: "It happened in June, about

<sup>&</sup>lt;sup>19</sup> Noah Webster, *An American Dictionary of the English Language*, rev. Chauncey A. Goodrich and Noah Porter (Springfield, MA: G. & C. Merriam Company, 1864), p. 546. For Lovecraft's use of this edition, see S. T. Joshi with David E. Schultz, *Lovecraft's Library: A Catalogue* (New York, NY: Hippocampus Press, 2017), p. 164.

the anniversary of the meteor's fall, and the poor woman screamed about things in the air which she could not describe. In her ravings there was not a single specific noun, but only verbs and pronouns" (p. 181). Nahum shuts his wife up in the attic, followed by his second son, Thaddeus. Merwin is next: "The way they screamed behind their locked doors was very terrible, especially to little Merwin, who fancied they talked in some terrible language that was not of earth" (p. 183). To think in terms of outside laws is to track resemblances that shape another psyche, incompatible with ours, and so to lose one's mind.

Ammi is on the margins of this, at one remove. He is able to survive, though "his mind was bent ever so slightly" (p. 185). (Another coincidence: terms defined like "grue" are called "bent predicates.") The bulk of Lovecraft's narrative tells Ammi's story, what he saw and felt and heard, but does so in the words of the nameless narrator, who knows it second-hand. Lovecraft's surveyor draws attention to the indirection: "Often I had to recall the speaker from ramblings, piece out scientific points which he knew only by a fading parrot memory of professors' talk, or bridge over gaps where his sense of logic and continuity broke down" (p. 173). The weird coherence of the narration, its excess of specificity, the elaborate technical details of the scientists' chemical tests: these are explicitly marked as specious, products of post hoc reconstruction.

The structure of the narrative works on similar lines. Although it is meant to derive from a conversation with Ammi, there is no direct discourse for nearly twenty pages. Even then the dialogue is not with the narrator, but between Ammi and Nahum, whose speech is quoted in implausibly precise eye dialect: "'Nothin' ... nothin' ... the colour ... it burns ... cold an' wet but it burns ... it lived in the well ... I seen it ... a kind o' smoke ... jest like the flowers last spring [...] it come from some place whar things ain't as they is here ... one o' them professors said so ... he was right ... look out Ammi, it'll do suthin' more ... sucks the life out....'" (pp. 188–9). The language of Ammi and Nahum is not the language of the narrator; except, perhaps, in these brief stretches, the words we are reading are his, not theirs. What this narrative distancing suggests is an experience that cannot be grasped or conveyed directly, that is cloaked by mismatched terms. It is as if we are reading a translation from one verbal or conceptual scheme into another.

The narrator's impossible attempt to occupy Ammi's perspective, shaped now by a colour that is not a colour yet "was to him of no unfamiliar hue," accounts for the weird, strained use of free indirect style in the story's linguistic crescendo (p. 191). Lovecraft is often mocked, sometimes appropriately, for his baroque "adjectivitis," but the narrator's prose is relatively spare and matter-of-fact until the end.<sup>20</sup> Then, as investigators look from Nahum's window at the waving branches of a tree, they see "a thousand tiny points of faint and unhallowed radiance ... It was a monstrous constellation of unnatural light, like a glutted swarm of corpse-fed fireflies dancing hellish sarabands over an accursed marsh" (pp. 193-4). The colour that pours from its buried home is a "riot of luminous amorphousness, that alien and undimensioned rainbow of cryptic poison from the well-seething, feeling, lapping, reaching, scintillating, straining, and malignly bubbling in its cosmic and unrecognizable chromaticism" (p. 196). The narrator's crazed diction intimates a crazed experience, described from the inside. It makes no sense for the narrator himself to use these words, to be so moved by an encounter he did not have. It is as if his idiom has been polluted by Ammi's, by an experience so intense it has to be expressed from the perspective of its subject. And yet the narrator's language in these spells of free indirect style is palpably unlike anything Ammi could have uttered. The alien perspective is at once infectious and incommunicable, like the colour.

What exactly happens to the narrator's words? At pivotal moments, they become like Mrs. Gardner's: "not a single specific noun, but only verbs and pronouns" (p. 181). That is what transpires when the light departs, "seething, feeling, lapping, reaching, scintillating, straining, and malignly bubbling," a pattern of unmodified verbs disrupted by a single adverb (p. 196). And it is what happens, more discreetly, when Nahum dies: "That which spoke could speak no more because it had completely caved in" (p. 189).

Verbs behave oddly from the beginning of the story, which personifies buildings, landscapes, vegetation. There are "squat, moss-coated cottages brooding eternally over old New

<sup>&</sup>lt;sup>20</sup> The most well-known critique is Edmund Wilson's *New Yorker* essay, "Tales of the Marvellous and the Ridiculous" (1945), reprinted in Joshi, ed., *Four Decades*, pp. 46–9.

England secrets [where] the blasted heath will slumber" (p. 170). "Weeds and briers reigned" over the hillsides (p. 171). On Nahum's farm, the "black well yawned deep" near the site of "the great rock that fell down out of the sky and bedded itself in the ground" (p. 173). Among the earliest signs of inductive failure are peculiar forms of agency, as abnormality shifts from verbs to actions: "the leaps of the rabbit were longer than either Ammi or his horse liked" and a dead woodchuck's body "seemed slightly altered in a queer way impossible to describe, while its face had taken on an expression which no one ever saw in a woodchuck before" (p. 178).

Soon nature is not just personified but animate. "Nahum's second son Thaddeus, a lad of fifteen, swore that [the trees] swayed also when there was no wind" (p. 179); "a detached piece of phosphorescence appeared to stir furtively in the yard" (p. 181); and we find "great bare trees clawing up at the grey November sky with a studied malevolence" (p. 186). The animation of nature peaks as the investigators see the lights around the farm, in another blaze of free indirect style: "And yet amid that tense, godless calm the high bare boughs of all the trees in the yard were moving. They were twitching morbidly and spasmodically, clawing in convulsive and epileptic madness at the moonlit clouds; scratching impotently in the noxious air as if jerked by some alien and bloodless line of linkage with subterrene horrors writhing and struggling below the black roots" (p. 193).

The idea of agency in the inanimate world may seem quite distant from the problem of induction. But Santayana explicitly connects the two. Dissecting the structures of animal faith that underlie our attribution of mental states, Santayana sees no principled gap between the "the analogy of nature [that] would suggest that the other living creatures in the world are animate, too, and discourse privately no less assiduously and absurdly than I do" and an animism on which "all the substance of nature is ready to think": "The character of this universal animation, or readiness to think, is inconceivable by me, in so far as its organs or objects differ from my own. The forms of it are doubtless as various as the forms of material being; a stone will think like me, in so far as it lives like me" (Santayana, p. 250). In a 1916 letter to the "Kleicomolo" (a correspondence group including Lovecraft, Rheinhart Kleiner, Maurice Moe, and Ira Cole),

Lovecraft anticipates Santayana, perhaps with tongue in cheek: "How do we know that that form of atomic and molecular motion called 'life' is the highest of all forms? Perhaps the dominant creature—the most rational and God-like of all beings—is an invisible gas! Or perhaps it is a flaming and effulgent mass of molten star-dust. Who can say that men have souls while rocks have none?"<sup>21</sup>

Whatever he believed, Lovecraft's imagination was gripped by the idea of beings whose form of agency, life, and thought is wholly different from ours, and by the possibility that that such beings exist around us. That we cannot conclusively rule them out is a lesson of Hume's problem; that they might obey or acknowledge laws of nature utterly alien to us is a lesson of Goodman's. Santayana and Lovecraft unite these problems, synthesizing or conflating the prospect of alien mental and physical phenomena. They share a materialism that is close to Russell's "neutral monism": rejecting a duality of mind and matter but agnostic about the nature of the one form of substance and attribute there is.<sup>22</sup> Ultimate reality is neither mental nor physical, or it is both; either way, its intrinsic nature is beyond us. Induction can fail; even where it works, it may depend on alien concepts; and even then, it illuminates only patterns of relation, not the nature of reality in itself.

In "The Colour out of Space," movement becomes a metonym for this nexus of ideas. "Moving" can mean changing place or posture, causing motion, or exciting passion, touching, or pathetic.<sup>23</sup> It can blur or fuse the mental and the physical. When the Gardners stare into the well, they are terrified by "the moving colours down there" (p. 183). And when Ammi walks into the attic room in which Nahum's wife is disintegrating, "[strange] colours danced before his eyes" (p.

<sup>&</sup>lt;sup>21</sup> H. P. Lovecraft, letter to the Kleicomolo, August 8, 1916, in H. P. Lovecraft, *Selected Letters I: 1911–1924*, ed. August Derleth and Donald Wandrei (Sauk City, WI: Arkham House, 1964), p. 24; hereafter abbreviated *SL I*.

<sup>&</sup>lt;sup>22</sup> Bertrand Russell, *The Analysis of Mind* (London: George Allen & Unwin, 1921). For Santayana's monism, see Santayana, p. 287. For Lovecraft's, see H. P. Lovecraft, letter to Woodburn Harris, finished March 1, 1929, in H. P. Lovecraft, *Selected Letters II: 1925–1929*, ed. August Derleth and Donald Wandrei (Sauk City, WI: Arkham House, 1968), pp. 261–8; hereafter abbreviated *SL II*.

<sup>&</sup>lt;sup>23</sup> Definitions adapted from Webster, p. 864.

187). "But the terrible thing about this horror was that it very slowly perceptibly moved as it continued to crumble. ... [The] shape in the corner does not reappear in his tale as a moving object. There are things which cannot be mentioned, and what is done in common humanity is sometimes cruelly judged by the law. I gather that no moving thing was left in that attic room ..." (p. 187). Is it contrived to hear "moving" as a pun, the moving object as both animate and pitiful, and the same with "moving colours"? Lovecraft drops a hint. Near the end of the story, hardened investigators come to Nahum's farm and search the house: "Used as the officers were to gruesome experiences, not one remained unmoved at what was found in the attic" (p. 190). A moving thing was left there, after all.

It may not be a coincidence that the same pun is used by Santayana in his account of animal faith. Discussing animals early in his book, he writes: "The notion of a moving world is brought implicitly with them; they fetch it out of the depths of their vegetating psyche, which is a small dark cosmos, silently revolving within" (Santayana, pp. 38–9). Theirs is a world of physical objects in motion, but also of hunger and fear. It may not be a coincidence, either, that Lovecraft's edition of Webster's dictionary lists under "moving": "*Moving plant (Bot.)*, a plant of the genus *Hedysarum (H. Gyrans)*;—so called because its leaflets have an automatic motion" (Webster, p. 864). Might this be the root of Lovecraft's twitching, clawing trees?

Vegetation is a locus of horror in "The Colour out of Space," from the trees to the glossy, bloated and then shriveled, greying fruit. "Fruit" is itself another pun, appearing at the bookends of Ammi's story. When the meteor is struck by lightning and disappears, Nahum tries to find some remnant, but "[digging] had borne no fruit" (p. 176). Striving to capture what he has learned from Ammi, the narrator concludes: "This was no fruit of such worlds and suns as shine on the telescopes and photographic plates of our observatories" (p. 199). Fruit as product and as the pulpy vessel of seeds. For Santayana, "fruit" furnishes an image of the animal psyche. "Spirit is a fruition," he writes, "and there are naturally as many qualities of fruition as there are fruits to ripen" (Santayana, p. 275). What, then, is the fruit of Lovecraft on induction? His questions are not epistemic but affective. On the epistemology of induction, Lovecraft sides with Santayana and Hume. We cannot have certain knowledge of natural law, but we do not need it to justify our estimates of probability. It is epistemically rational to depend on animal faith. What this leaves open is how to feel about this dependence, how it should affect or move us.

Lovecraft is known for his conviction of cosmic insignificance, canonically expressed in a letter to *Weird Tales* editor, Farnsworth Wright: "Now all my tales are based on the fundamental premise that common human laws and interests and emotions have no validity or significance in the vast cosmos-at-large. ... To achieve the essence of real externality, whether of time or space or dimension, one must forget that such things as organic life, good and evil, love and hate, and all such local attributes of a negligible and temporary race called mankind, have any existence at all."<sup>24</sup> It is hard to see how the vastness or indifference of the cosmos, or the absence of cosmic teleology, could have the implications Lovecraft seems to draw. Why should these things mean that good and evil, love and hate are insignificant? Or that, as Lovecraft wrote in another letter, "Nothing really matters"?<sup>25</sup> For Lovecraft, "[a] mere knowledge of the approximate dimensions of the visible universe is enough to destroy forever the notion of a personal godhead whose whole care is expended upon puny mankind."<sup>26</sup> But the basis of the inference is obscure; and the inference to nihilism is no better.<sup>27</sup>

The impression of insignificance in the vast, indifferent cosmos is not peculiar to Lovecraft. Is it simply confused? I don't believe it is. The mistake is to interpret this response as an inference from a metaphysical premise, a claim about the nature of the universe, to a

<sup>&</sup>lt;sup>24</sup> Lovecraft, letter to Farnsworth Wright, July 5, 1927 (*SL II*, p. 150); the letter was excerpted in *Weird Tales*, February 1928.

<sup>&</sup>lt;sup>25</sup> Lovecraft, letter to Elizabeth Toldridge, May 4, 1929 (SL II, p. 335).

<sup>&</sup>lt;sup>26</sup> Lovecraft, letter to the Kleicomolo, April 1917 (SL I, p. 44).

<sup>&</sup>lt;sup>27</sup> For an attempt to puzzle through the connection between immensity in time and space and the absurdity of human life, see Thomas Nagel, "The Absurd" (1971), reprinted in Thomas Nagel, *Mortal Questions* (Cambridge: Cambridge University Press, 1979), pp. 11–23.

conclusion about what matters. The question how to feel about a philosophical idea is less about its ethical implications than about the emotions it makes fitting or discordant. It is matters of this kind that are the proper subject of disputes about the meaning of life. How are we to feel about the large-scale properties of existence, the size of the universe, the pervasiveness of suffering, and the extent of what we do not know?

Not everyone reacts in the same way to the immensity of the cosmos. In a talk presented to the Cambridge Apostles in 1925, Frank Ramsey memorably joked: "Where I seem to differ from some of my friends is in attaching little importance to physical size. I don't feel the least humble before the vastness of the heavens. The stars may be large but they cannot think or love; and these are qualities that impress me far more than size does. I take no credit for weighing nearly seventeen stone."<sup>28</sup> I used to feel like Lovecraft: awed and diminished by the panorama of the dark night sky, the endless stars. Now, when I think about the universe with "its virtually certain sprinkling of unknown life-forms," I am relieved that the fate of intelligent life most likely does not rest in our unsteady hands.<sup>29</sup> It would be rash to argue that Lovecraft's sentiment alone is apt.

But when we turn to our inductive frailty, I think that Lovecraft has a point. How should we feel about the contingency of inductive success? How to be moved by the fact that nature might swerve, the prospect that our concepts do not carve it at the joints, that its inner character is hidden, unsusceptible to discovery by any means? I suppose we could respond like Santayana, by turns phlegmatic or inspired: "Nothing that happens is groundless, since whatever antecedents it actually has are adequate to produce it. Yet all that happens is marvellous, because like existence itself it is unfathomable" (Santayana, p. 211). I can barely conceive the "security of the self" that lies behind such equanimity (Fisher, p. 49). For the most part, I don't ask how life depends on the consonance of our cognition with causal powers that persist and project into the future. But when I do, I worry. "The Colour out of Space" elicits an inductive vertigo that is the

<sup>&</sup>lt;sup>28</sup> F. P. Ramsey, "Epilogue" (1925), reprinted in F. P. Ramsey, *Philosophical Papers*, ed. D. H. Mellor (Cambridge: Cambridge University Press, 1990), pp. 245–50 (249).

<sup>&</sup>lt;sup>29</sup> Lovecraft, letter to Frank Belknap Long, February 27, 1931 (SL III, p. 295).

flipside of curiosity, the desire for an impossible assurance, for a cosmic, not merely social, peace.<sup>30</sup>

<sup>&</sup>lt;sup>30</sup> Belated thanks to S. T. Joshi for encouragement and insight, almost thirty years ago, that went beyond all reasonable expectations. More recently, I am grateful to the students in "Literature and Philosophy" at MIT, fall 2018, and to my co-conspirator, Marah Gubar.