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Truth Deserves to be Believed

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Abstract
Science seems generally to aim at truth. And governmental support of science is often premised on the instrumental value of truth in service of advancing our practical objectives, both as individuals and as communities, large and small. While there is some political expediency to this view, it is not correct. The value of truth is nowise that it helps us achieve our aims. In fact, just the contrary: truth deserves to be believed only on the condition that its claim upon us is orthogonal to any utility it might have in the service of (any and all) practical ends.

1. Introduction: Pragmatism

Pragmatism is sometimes held up as deflationary of the notion of truth. Pragmatists have sometimes insisted that truth claims, as such, enjoy no special metaphysical significance: a fact is charged with whatever ontological significance it is charged with, but its truth, as such, merits no more significance than that. There is nothing at all to the truth of a fact, over and above whatever happens to make it a fact. This is not to say that pragmatists have generally renounced realism. To the contrary: they most emphatically have not. Some pragmatists have insisted upon their claims *in service* of realism. For instance, C.S. Peirce adhered to a realist conception of truth – a conception of truth as a fixed reality, independent of human cognitions and concerns. And he infused his position with a deep respect for scientific methodology: 'the ideas of truth and falsehood, in their full development, appertain exclusively to the scientific method of settling opinion'.[1] In conducting research, different investigators might use different methods to identify a quantity of interest – for example, the speed

[1] 'How to make our ideas clear', *Popular Science Monthly* **12** (January 1878), 286–302.

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of light in a vacuum. But they will tend to arrive at the same result – because there is an independent reality at which to probe:

> So with all scientific research. Different minds may set out with the most antagonistic views, but the progress of investigation carries them by a force outside of themselves to one and the same conclusion. This activity of thought by which we are carried, not where we wish, but to a foreordained goal, is like the operation of destiny. No modification of the point of view taken, no selection of other facts for study, no natural bent of mind even, can enable a man to escape the predestinate opinion.[2]
>
> The opinion which is fated to be ultimately agreed to by all who investigate, is what we mean by the truth, and the object represented in this opinion is the real. That is the way I would explain reality.[3]

I will refer to Peirce's conception as the 'convergence' theory of truth.

William James, by contrast with Peirce, had a rather more forthright conception of truth, that he also held to be 'pragmatist':

> Any idea upon which we can ride …; any idea that will carry us prosperously from any one part of our experience to any other part, linking things satisfactorily, working securely, saving labor; is true for just so much, true in so far forth, true instrumentally.[4]

James's conception is thus better regarded as the 'advantage' theory of truth – and it is the one that contemporary thinkers often think of as quintessentially pragmatistic.

Peirce's and James's conceptions of truth are admittedly very different. But they share a common thread – a thread that runs also through much political thought on the value of science today: truth has a practical value; and scientific truth has an especially practical value. There is a practical benefit to be derived from possession or even proximity to truth. This aligns with the pragmatist axiom that truth makes a practical difference (and so the truth conditions to be associated with a statement are, roughly, its practical consequences).

[2] C. S. Peirce, *The Essential Peirce* (two volumes edited by the Peirce edition project) (Bloomington: Indiana University Press, 1992–1999), 138.

[3] Op. cit. note 1, 139.

[4] William James, *Pragmatism: A New Name for some Old Ways of Thinking* (Cambridge MA: Harvard University Press, 1975) (Original work published 1907), 34.

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Classical philosophical pragmatism was an American phenomenon, originating in the scholarship of the triumvirate of Peirce, James and John Dewey, and focusing upon science as the paradigm of knowledge. Accordingly, its fundamental innovations were primarily in the area of epistemology. Fundamental too was pragmatism's commitment to Darwinism, in the form of a doctrine to the effect that the favorable designation of 'knowledge' should fall only on beliefs in human history that happen to have been recruited in the service of the aim of overcoming obstacles to the satisfaction of human needs or wants. 'Science', therefore, must refer to those beliefs or attitudes that serve to confer upon certain organisms in the lineage of *homo sapiens* an evolutionary advantage. Correspondingly, only such beliefs are eligible of the dignity of truth.

But it is really quite ironic that classical pragmatism should have wished to align truth (and therefore science) with any products of natural selection. Because natural selection in no way tracks truth, but rather advantage. And sometimes that means it must promote falsehoods over truths. And for this reason certain descendants of classical pragmatism have since revoked science's title to the notion of truth, altogether denying truth a place of philosophical significance, and consequently take a rather different – though not necessarily dimmer – view of science. Donald Davidson and Richard Rorty, for example, propose to dispense with the notion of truth in epistemic theorizing, because it does not provide an independent standard for demarcating the wheat from the chaff, as do more properly epistemic terms (such as for instance *warrant* or *justification*). Rorty especially emphatically denies that beliefs purport to portray the world 'as it really is'.[5] For how could a species have acquired the ability to *represent* the universe – especially the universe as it really is, as opposed to how it is usefully described, relative to the particular needs of members of that species?

I cannot but agree with contemporary pragmatists that natural selection can indeed track useful beliefs, for the fact of their being useful. So I too shall maintain that natural selection nowise tracks truth *as such*, even though it sometimes promotes truth over falsehood. For natural selection, as is well known, tracks simple advantage; and in some instances certain beliefs can confer an advantage. But because falsehoods can also be exceptionally useful, natural selection cannot help but sometime promote these too. And so I shall agree with contemporary pragmatists that natural selection does not

[5] Richard Rorty, *Objectivity, Relativism, and Truth: Philosophical Papers*, Volume **1** (Cambridge: Cambridge University Press, 1991).

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promote beliefs on the basis of truth. But *unlike* pragmatists, classical or contemporary, I shall insist upon the value of affirming truth for another reason entirely. I shall argue that truth is an epistemically *normative* notion – in other words that it marks certain propositions as *deserving* of belief. Indeed, the value of marking something as true is that it marks it as meritorious *independently* of how believing it might confer an advantage. In defending this view, I shall be rejecting entirely the pragmatistic theory of truth.

Along the way we shall examine Bernard Williams's contention that *belief* is a normative concept: in other words that there is an intrinsic aim to belief, and that aim is truth.[6] This is quite a problematic dictum, as it stands, insofar as a believer, when forming a given belief, may be enjoying no such aim – and may indeed be intent upon advancing aims (reputation, personal gain, simple perversity, to name just a few) that may conflict with adopting the goal of truth. Still there is an important idea underlying Williams's dictum. I shall argue that *truth itself* is normative – that the very notion of truth invokes a norm or standard. It is the very name of truth that bears the normative property, not believers, or belief as such. Truth holds itself up as the aim of inquiry, no thanks to us or any of our cognitive abilities. This is an Aristotelian idea. Still, it is a fact about modern humans that we subscribe to the standard that truth deserves to be believed, whether or not we aim personally at it. This normative feature of our concept of truth is the extra something that Rorty quite correctly felt was nowise a guide to action, not if the would-be believer is already committed to outing truth. And Rorty maintained – again correctly – that truth should play no role in evaluations of competing beliefs on a topic. And he is quite right that it obviously cannot, as that role can belong only to evidence. Moreover, instructing someone to pursue the truth (rather than the convenient, for instance) affords that person no additional help in working out what that truth might be. However, marking something as true (or, relatedly, likely to be so) provides the fundamental – perhaps the *only* – reason for utilizing information already on offer toward a certain conclusion, a reason that is emphatically *not* rooted in concerns for personal advantage.

These remarks serve to demonstrate that there is something wrong with the deflationary theory of truth. Deflationism advises, perversely, that truth as such has no claim on believers independent of their other aims. But the way we cope with statements about truth,

[6] Bernard Williams, 'Deciding to Believe', *Problems of the Self* (Cambridge: Cambridge University Press, 1973).

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as I shall argue, tells a different story: we are not indifferent to truth. Truth most assuredly makes claims upon us. Truth is more substantial than deflationists would have us believe.

2. Evolution by natural selection is blind to truth

It is truly an irony that pragmatists, classical and contemporary, view Darwinism as an ally. Rorty proclaims that, like Dewey, he can discern 'no breaks in the hierarchy of increasingly complex adjustments to novel stimulation – the hierarchy which has amoeba adjusting themselves to changed water temperature at the bottom, bees dancing and chess players check-mating in the middle, and people fomenting scientific, artistic, and political revolutions at the top'.[7] And this leads him to the view (which he regards as a refined form of pragmatism) that it makes no sense at all to say that humans pursue truth, in the process of, instead of or simply in addition to, pursuing their advantage. Because our vocabularies 'have no more of a representational relation to an intrinsic nature of things than does the anteater's snout or the bowerbird's skill at weaving'.[8] By contrast, Philip Kitcher maintains that the institutions of science were the direct result of natural selection: at the beginning, the standards and methods of inquiry were largely a matter of social factors; but eventually humans arrived at a method – familiar now as the scientific method – for resolving disputes, via the process of natural selection.[9] This is because natural selection ensured that those who employed the method better or more perfectly, prospered more than those who did not.

Both Rorty's and Kitcher's positions, however, are no more than articles of faith – Rorty's because it is quite obvious that those humans who can 'track' the truth for instance about where their prey is located will, like any other predator, be favored by natural selection over a competitor whose grasp of prey whereabouts is more spotty. So natural selection does track *some* features of how an animal *represents* its world. But Kitcher's position is also an article of faith. Because the features of a belief that natural selection tracks are in a vast number of cases, not its truth. This is also easy to see.

[7] Op. cit. note 4, 109.

[8] Richard Rorty, *Truth and Progress: Philosophical Papers*, Volume **3** (Cambridge: Cambridge University Press, 1998), 48.

[9] Philip Kitcher, *The Advancement of Science: Science without Legend, Objectivity without Illusions* (Oxford: Oxford University Press, 1993).

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Consider the human who believes he is the most attractive male in his cohort. That male has a much better shot at out-reproducing his competitors, than a comparable male minus the self-serving belief. The first male will ensure he is at the right places at the right times. But his chances of reproducing himself are not improved for the *truth* of his self-serving belief, but simply for his *having* it. In fact, it might be the comparable male who believes the truth – that indeed he is not very attractive. And so, the unattractive male would be much better served by a falsehood on the subject, than he is by the truth. It is no wonder, then, that so many of us believe we are better than average. And about half of us are absolutely wrong – but nowise less better served for our having believed a falsehood. To the contrary: the falsehood serves us considerably better than the truth on the subject.

Natural selection tracks advantage. When it comes to beliefs, nature will select beliefs (when it exerts pressures on beliefs at all) that serve its bearer better, all things considered, over beliefs that serve less well. And so Darwinism is no ally of the idea that human beings track truth – unless advantage and truth converge, or are artificially made to do so, such as when human beings organize their institutions accordingly.[10] It will help to argue this point in another way as well.

In the *Republic,* Glaucon tells the story of Gyges. It is a story that deserves retelling, with modifications, now and again. This is such a time. Once upon a time a chap called Gyges finds a ring with a remarkable power: when 'activated', it delivers to the brain a dose of a drug that induces in the person bearing it a package of beliefs tailor-made to advancing the bearer's objectives. So for example, if Gyges is now hungry, the ring's activation will induce in him the belief (true, as it happens) that there's an injured rabbit in the bush to his right, and that if he will only take hold of that tree limb yonder, he can have a nice rabbit stew for dinner. With this ring Gyges need never go through the effort of learning to track prey, or judge a bargain, or analyze a business prospect: what he needs comes to him as if he always already knew it.

Of course new beliefs require some reconciling to old ones (more for some folks and less for others). So the ring will induce a tendency for beliefs in its bearer to equilibriate themselves – a tendency for

[10] Helen E. Longino, *Science as Social Knowledge: Values and Objectivity in Scientific Inquiry* (Princeton: Princeton University Press, 1990) should be read as claiming that indeed certain scientific institutions are so organized.

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tensions in the corpus of beliefs to be reduced through pruning of outliers.[11] Naturally, after putting the ring to some use, Gyges will be unable to discern the origins of any given belief: thus it will be a natural outcome of multiple uses of this ring that the line between ring-induced beliefs and others will be blurred, even if in a given application the incremental change might be immediately obvious.

What will Gyges's belief corpus look like after some time with the ring? Does it contain only truths? No. It is liable to contain many falsehoods. For instance, Gyges, just like the overconfident male we encountered earlier, will also come to believe he is uncommonly attractive. Will the contents of Gyges's corpus depend on when he started using the ring, what he believed at the time, and his special aims in life? Of course it will. But of course it would have done absent the ring. Still, however serviceable Gyges's ring-sourced convictions might otherwise be, they are not all true. And particularly not if we assume (as we ought to do) that Gyges does not use the ring solely out of idle curiosity. For there will always be a cost to forming a belief. So we should postulate that in Gyges's case the ring tires him out or is costly to his health in some way. So he cannot use the ring without counting some costs. The conclusion we can press here is that belief – as a commodity that itself draws and depends upon a certain pool of an organism's limited resources – is decisively *not* aimed at truth. Its target, instead, is advantage. And these are distinct things, pragmatist convictions notwithstanding.

It does no good to protest that by and large, and in ordinary circumstances, it will be true opinions, and not false, that Gyges's ring will foist upon him, or that the ring is probably a reliable source of true belief on many topics. For so long as there exists a single instance in which a false opinion will serve Gyges's aims better than a true one, it will be true that the imperative to advance advantage is not the same as the imperative to pursue (or approximate or even converge upon) the truth.[12]

[11] Indeed there is a very large literature proposing alternative algorithms for belief corpus modification, upon the introduction of new propositions into a given corpus.

[12] Glaucon formulates his original Gyges story to secure a similar leverage against Socates's position, and in favor of his own proposal to the effect that pursuit of self-interest and pursuit of justice are decidedly different things. The Gyges stratagem works for Glaucon the same way I should like it to work for my case in the present context.

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Gyges's ring is a technology enhancing the cognitive corpus for better service of its master's objectives. Although Gyges's ring is better than what we are presently capable of, we are all consumers of such technologies, most prominently in the form of sense organs.[13] These have been 'engineered' in natural history to serve aims specific to the context of our species, whether or not we as agents embrace those aims when we employ these services today. Their purpose is not to deliver truth, but to deliver beliefs that afford an advantage. In support of this we need only note that the beliefs foisted upon us by our visual apparatus are to effect that a preponderance of medium-sized objects in the world are constituted of continuous matter – which proposition modern physics vociferously protests. And so appealing to practicality of a belief is precisely the wrong tactic, if one wishes to advise on the truth of a belief. And this point shall be for us the beginning of wisdom.

3. Significant truth

Kitcher argues that science aims at 'significant truth' rather than at truth unqualified.[14] Against science skeptics, Kitcher argues that science is indeed objective, and a truth-seeking enterprise; but against unmodulated science boosterism he argues that science is also interest-relative – because what scientists inquire into and the categories that structure their scientific inquiries must (actually, by his own well-ordering imperatives) be sensitive to social and political concerns. Thus what science seeks is not truth unqualified, but *significant truth*.

I can imagine someone interjecting at this point that this is enough to rescue science from the jaws of the argument of the previous section. After all, the examples of beliefs serving individual advantage so far considered, and which are such as *diverge from truth,* will all be *insignificant*. The overconfident male, impressed too much by his own attractiveness, does not hold a belief deserving of the dignity of the label 'science'– and certainly has not reached it via the strictures of the approved method.

[13] Cognitive theories of vision-for-action – for example, A.D. Milner and M. A. Goodale, *The Visual Brain in Action* (New York: Oxford, 1995) – provides strong independent evidence for this claim, though there is no space here to elaborate the point.

[14] Philip Kitcher, *Science, Truth and Democracy* (Oxford University Press, 2001) and *Science in a Democratic Society* (Prometheus Books, 2011).

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But this is cold comfort. So long as it is we who say what 'significant' signifies, there is no guarantee of any sort that false beliefs that afford certain advantages will not find their way into the scientific repository. Indeed many have already done: beliefs, for instance, as to the inferiority of certain members of the human species – women, the underclasses, persons of color. Once upon a time such 'truths' were considered quite significant indeed, and by scientists no less so than by ordinary mortals who might never insist upon such sentiments as 'scientific'. Scientists are not immune to the powers of natural selection, as much as we try to inoculate them. And natural selection dictates advantage. Science can be bent and abused, if there is some advantage to gained thereby. And so we have to be watchful over scientific institutions precisely for this fact – ensuring that the right incentives are in place to help us identify the chaff sooner rather than later.

4. An old theory of science

Aristotle wrought the first theory of science, which in my view deserves reviving. Aristotle held that intellectual inquiry – inquiry for its own sake – falls into natural categories, that today we refer to as 'disciplines'. Aristotle insisted that standards of inquiry differ by discipline. For example, the standards of proof and evidence in logic and mathematics should not be applied to the study of nature, or to politics. Aristotle insisted on a distinction between knowledge (science) and common sense: science is that which adheres to standards of inquiry – standards independent of the would-be believer's interests. Common sense, by contrast, answers only to its users. And he insisted also on philosophy having its own standards, so that philosophical reflection on a discipline comes out as different from the practice of the discipline itself.[15]

Aristotle's theory of science and his conception of knowledge are one and the same conception. On this conception, common sense is not knowledge, because common sense enjoys no standards of inquiry. It is not a discipline. It is an activity of practical, as contrasted with scientific or disciplinary, life. Knowledge is relatively

[15] Cf. T. Irwin, 'Aristotle'. *Routledge Encyclopedia of Philosophy* (online) (Taylor and Francis, 2002). This corroborates certain sentiments – those that provoked J. L. Austin and Ludwig Wittgenstein to quietism – to the effect that when one asks 'How do I know there is a hand here?' one is not seeking an answer to an ordinary question at all, but only a philosophical answer. Austin and Wittgenstein famously held that there is none to give.

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rare, at least in certain epochs, in that it is the product of science. It is common only conditionally, and common only to the extent that scientific knowledge is disseminated well and freely. If scientific inquiry had never been conducted, or if it were secreted in the temple of a holy priesthood, then there would be no knowledge spread across the earth: the planet would be covered only in abject common sense.

I want to make this perfectly clear. Aristotle's view, to the effect that common sense merits no stature as knowledge, is by no means a version of quietism as invented by G. E. Moore and Ludwig Wittgenstein. Quietism maintains – to the contrary of Aristotle – that common sense enjoys the highest epistemic authority. And this is why, according to the quietists, common sense bears no burden to give a special account of itself as knowledge. For it is the very prototype of what knowledge is. This is a certain polar opposite to the view on truth and knowledge that I am proposing to revive in Aristotle's name. When the Aristotelian says that common sense has no reply to offer a challenger, this is just another way of saying that common sense does *not* meet the high standards of intellectual inquiry. Still, one need not deny that something with common-sense-like content can become scientific data or scientific observations. But this can happen only when the contents in question pass very rigorous standards of scientific observation, under the right conditions for making such observations.[16]

5. Knowledge

The moral of our adapted Gyges tale is that knowledge, on the one hand, and belief of convenience (and plain common sense too) on the other, are different things. Why go to such lengths to mark the distinction? Its truth, it would seem, is so obvious. Not so. We need to emphasize that the kind of rationality involved in the assembly of true knowledge is in no way kin to practical rationality.[17] And

[16] This in not the place to say what these standards are. And in any case, the matter is subject to some controversy.

[17] Recognition of this fact is one route to solving certain philosophical puzzles of recent vintage, problems having to do with strategy: puzzles of deterrence, or of coordination where there are multiple Nash equilibria, and the toxin puzzle (where prudence as such seems to get in the way). All of these problems lend themselves to better solution via Gyges' ring than

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this idea goes very much against what many present-day epistemologists hold dear.

Gyges's ring allows us to enslave judgment to the passions.[18] While the ring of the present Gyges tale can foist upon its master such beliefs (many of them true) as will help meet present objectives, what will it do when its master's objective is knowledge? Can it through chemical means assemble such evidence as will make the belief associated with it deserving of the dignity associated with the name of knowledge? To be sure we can grant that the ring can manufacture too the *appearance* of evidence (beliefs purporting to be about observations or derivations or what have you), but of course the appearance of evidence and the reality are different things. And this is precisely the point.

But we must acknowledge that the question we are confronting at this juncture – the question whether knowledge can be manufactured through successive applications of Gyges's ring – involves a task rather different from the one we originally set for the ring. The task at this point concerns the manufacture of *evidence* that will make the belief in question worthy of the label knowledge. Without question this is not a route to knowledge. For Gyges to attain a piece of knowledge, whilst under the influence of the ring, it should have to be the case that the ring's operations are independent of Gyges's objectives, in the following sense: Gyges's wants vis-à-vis his target of knowledge should have no effect on his ultimate corpus of beliefs vis-à-vis that same target. For example, Gyges's wish to know something about the microstructure of the universe, say, should not be in any way correlated with the *content* of his ultimate beliefs on this subject. The evidence manufactured for Gyges, concerning whatsoever belief the ring foists upon him concerning that subject, should then be strictly independent of Gyges's personal aims – for instance, aims to vindicate a pet theory. And this implies that the ring cannot be a slave to its master's passions. This independence condition could be catered for if the ring's operations were such as to destroy or forbid to itself access to the ringmaster's objectives. Alternatively, the ring could foist upon its master all true propositions to which it has access, in a random fashion. In the former case, the ring is a creature of some other science fiction story, not the present one. In the latter

through a process of ratiocination in which along the way we acquire also materials that undermine a desirable target belief.

[18] Rather more directly, I should think, from what Hume had in mind.

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case, the ring would constitute more a burden than an asset: from a practical perspective, it would not be worth having.

When we talk of knowledge, we are talking about something of very recent provenance in the larger scheme of evolved things, supported by a multi-national web of institutions, and serving a market that is markedly different from that served by the beliefs Gyges is after in our adapted story. We are indeed talking about something that aims at truth as such, without regard for its utility. To study this something in the light of natural history, we have to mark it off from the pretenders – the beliefs of convenience. Only then can we recognize that it serves a very different market, and that therefore its natural history is quite distinct from the market for convenient beliefs.

6. Natural History of Knowledge: some preliminary gestures

Pragmatism today subdivides into a number of species, but uniting them all is the core idea that science, such as it is, is 'natural' in the sense that it is continuous with common sense – that science serves each human organism in the way that a bat's wing serves the bat. Pragmatism is right (once again, ironically) that science is a development in the natural order, and one moreover deserving of a Darwinian natural history. My account differs from pragmatistic accounts in that it asserts the *dis*continuity between science and common sense, as I will now attempt to make clear.

Social life is a network of strategic interactions. It is a stage on which strategies, like everything else that is subject to transmission from one generation to the next, vie for survival and reproduction.[19] Strategies need not be individual- or organism-bound, for their transmission is not restricted (as biological transmission is) to the vertical transmission from parent to offspring. Because strategies amongst the likes of us can be transmitted through imitative learning, they can float freely in a culture. When related and interlinked strategies coalesce, we may call the resulting package a *practice*.[20]

[19] Ever since the appearance of the influential work of John Maynard-Smith, *Evolution and the Theory of Games* (New York: Cambridge University Press, 1982), this characterization of the social has been heavily articulated.

[20] And there is a growing school of social scientists directing enormous creative energies towards founding a quantitative science of culture and anthropology, in this spirit. Many of them reserve a space for cultural transmission as independent, normally also admit of vector combinations of

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Now, a natural history of a practice – as a natural history – records not only the function of the practice being singled out for attention, but also the competitors against which it won the day, as well as the circumstances or evolutionary pressures which were such as to render it more likely to reproduce itself in relation to its competitors. So what were the competitors to our current knowledge practices? And what sorts of circumstances rendered their adoption more advantageous, and so the better smiled-upon by selectional forces? Why is knowledge, thought of as a community's repository of carefully crafted theories and hard-won evidence for them, worth having? In other words, what market does it serve? What practices has it had to compete with or to displace, and how has it won renewed and redoubled investment? Perhaps the specifics here can never be known for certain. The only study within miles of these questions was made by Edward Craig over two decades ago, and taken very little notice of.[21] Craig asks what knowledge is for, in the economy of human practices. He defends his proposed answer to this question – that knowledge practices serve the social function of marking reliable informants as knowers – by showing that, were this hypothesis true, then the practices we currently engage in, vis-à-vis exchange of propositions, would make sense. But this is not yet a natural history in the sense we have come to esteem.

Still, one thing is very clear: there is more than one practice involved in the trading of propositions – it is not all for the sake of sharing knowledge. Some practices clearly do not involve exchange of information under the banner of knowledge-sharing. These are the practices that speech act theorists have called to our attention. When I say 'I promise to repay you in a month's time', or 'I take you as my husband', I am not sharing any information, even if I am saying something true or enforceable. And while some practices serve individual goals, others – like the knowledge practice – serve

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biological and cultural forces. See for example R. Boyd and P. Richerson, *Culture and the Evolutionary Process* (Chicago: University of Chicago Press, 1985) and L. Cavalli-Sforza and M. Feldman, *Cultural Transmission and Evolution: A Quantitative Approach* (New Jersey: Princeton University Press, 1981). Brian Skyrms, *Evolution of the Social Contract* (Cambridge: Cambridge University Press, 1996) offers a modeling strategy (called 'replicator dynamics') that can be utilized to model both types of forces.

[21] Edward Craig, *Knowledge and the State of Nature: An Essay in Conceptual Analysis* (New York: Oxford University Press, 1990).

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the goals of communities. All extant practices serve a purpose or function – and the function in question has to be worth serving, or else the resources devoted to it would long ago have been devoted to serving some other end.

I contend that the knowledge enterprise is *not* continuous with common sense because we cannot give an account of common sense as aiming at truth, or as functioning to provide the believer with true belief as such. Precious resources go into the fixation of each belief. The moral of the Gyges story is that apportioning belief according to the evidence would be an evolutionary disaster, when it could be apportioned instead so as to maximize advantage. In the natural world belief is one more means to sustaining the organism's biological and economic being; so that aiming at truth for its own sake is a luxury that no organism can truly afford. So long as there is no *independent* payoff to apportioning belief in a way that makes it likely to be true directly, and not indirectly through the truth's being a useful commodity, there can be no natural history of knowledge. And if there is to be such a payoff, it must be artificially introduced – say, through cultural institution, for it does not occur in nature in a systematic enough way – or else truth and advantage would not be divergent in the way that we have seen that they in fact are. Knowledge and common sense are consequently not continuous with one another: at least one speciation event must intervene. Thus the evolutionary paths to our current condition vis-à-vis those two enterprises are substantially different. And on this point will hang the rest of our tale in the remainder of the essay. But first, a gesture at the natural history of knowledge.

Common sense, as already noted, strikes a balance between self-advantage, on the one hand, and apportioning belief according to a currency exchangeable in the human marketplace for goods and services, on the other. Knowledge, by contrast, has a different provenance. Knowledge enters the stage of history when institutions are created to reward individuals or collectives (in a currency they already accept, such as for instance status or reputation) for argumentation supporting a proposition after a fashion that illuminates the likelihood of its truth directly. A natural history of this latter sort can be told only when collectivities and institutions *too* are allowed to play roles on the evolutionary stage.

The history I will float is (roughly) as follows: in addition to individual organisms, we also have on the evolutionary stage institutions and collectivities, such as those that disseminate ideas, publish printed matter, and compete (in various markets) for the loyalties of consumers, adherents and students. They exert evolutionary

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pressures upon one another and upon individuals, and are acted upon by pressures exerted by individuals. To the extent that a market can be created for true belief as such, there is a special ecological/cultural niche to be filled. And institutions can rise up to supply that need. Institutions that seek to serve that market will find themselves in competition with one another, and possibly also in competition with individuals after a share of that same market. We are calling institutions that currently occupy that niche in our present milieu by the name of Science. Science – as an institution – provides the cognitive technologies required for the manufacture of knowledge, as well as for creation of the market that the product serves. Alone, naked human minds are not up to all of that.

A working assumption I have relied upon here (as Craig did before me) is that all extant practices serve a purpose or function – and that the function in question is worth serving, or else the resources devoted to it would long ago have been devoted to serving some other end. Knowledge practices – the practices of requesting and sharing knowledge – are practices that originate from deep needs to gather information, to be sure, but those need not all be so self-serving (even if many of them ultimately are) as has been supposed in today's theories of knowledge. For knowledge is much less the sharing of common sense than it is the preservation of material that conforms to certain rather rigorous standards of evidence for intellectual inquiry. The natural history of such practices belongs alongside the history of institutions with a very special kind of social mission. It is thus the stuff of social science and philosophy, and not the stuff of biology alone.

7. The name of Truth is itself normative

> For though both are dear, it is our sacred duty to choose the truth in preference to our friends.
>
> – Aristotle, *Nicomachean Ethics*

Pragmatism's mistake lies in not relinquishing Bernard Williams's contention to the effect that 'belief aims at truth', which rests on the assumption (false, as pragmatism itself recognized) that there can be only one aim for belief. Or at any rate, that this philosophically virtuous aim at truth cannot (according to the pragmatist's assumption) conflict with more creaturely aims for advantage. The truth is that belief serves many masters. Most of these know nothing and care even less about truth. Indeed, this is the genius of truth: it is orthogonal to all such masters.

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When someone (in whatsoever capacity) asserts that something is true, she is purporting that the reasons for believing it are independent of any advantage we may wish to gain thereby. She is testifying that the belief in fact lies outside of the branch of natural beliefs that serve individual advantage, via common sense. She is staking her reputation on the contention that the merits of the proposition in question do not lie in its service to us. She is telling us that the standards to apply, when deciding whether to adopt the proposition, are the standards of science broadly construed – in Aristotle's terms, that indeed it amounts to knowledge because it can or does meet strict standards. To remark on something as true is in effect to say that it passes or can pass muster vis-à-vis standards of this sort. It is to remind people of advantage-independent standards, and to urge them to refuse to engage in advantage-based reasoning if they are susceptible to it.

The previous paragraph is taken up with sociological observation, with examining relations among utterances that people are apt to make, when they are taken up in dialogical interactions – the stuff that Grice might have referred to as *implicature*.[22] This analysis is sometimes construed as examining intuitions, or looking for the meaning of words. But examination of implicatures is no more a matter of examining things in a linguistic speaker's head than a pH test is a test of pH paper. It is proper sociology. And in this case it reveals something about the importance of the practice of invoking the notion of truth. The language of truth signifies that the speaker is interested in marking standards – standards of the sort Aristotle talked about when he talked about the different sciences. These are standards that mark scientific inquiry off from common sense.

The pragmatists were not wrong to associate truth with science. It is just that they did not remember what Aristotle said about the foundation of science – namely that it involves application of standards. Aristotle did not shy away from standards or norms. He thought they were part of the natural order.

To say that something is true is to gesture at an impersonal norm. And this impersonal norm is as far as we humans can gesture in a direction diametrically opposed to considerations of personal advantage. To us, the gesture at truth is a gesture that is meant to redirect attentions to considerations diametrically opposite to personal advantage. That is the genius of the designation 'true'. It signifies a rationale for accepting

[22] H. P. Grice, (1975) Logic and conversation, in P. Cole & J. Morgan (ed.), *Syntax and Semantics, 3: Speech Acts*, 41–58, New York: Academic Press. Reprinted in H. P. Grice (ed.), *Studies in the Way of Words*, 22–40, Cambridge, MA: Harvard University Press (1989).

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something that is completely independent of any aims one might have for personal gain. (It's important that the rationale be independent, and not simply *opposed* to one's aims. For of course if one knew that one's aims would be disserved by the truth, one would then be motivated to strive against it as best one could.)

To conclude, then: the pragmatists were right that belief does not aim at truth. They were right that belief is not itself normative. They drew from this the conclusion that there is nothing at all to the notion of truth. But this inference is incorrect. Because truth, as a conception, is assuredly normative. And normativity is not nothing. To say that something is true is to mark that it passes or can pass standards of scientific inquiry, broadly construed. And for that reason deserves allegiance. Truth deserves to be believed. And saying so is – just as it seems – something of a tautology.

And this now shows that something is wrong with the deflationary theory of truth. Truth has a claim on believers, whether or not they aim at believing truth. That is the genius of truth. And truth, as such, bears the normative property. It is the thing deserving – not individual propositions, as such. Truth is thus considerably more substantial than deflationist would have us believe. But in saying this we must add: this account of truth is not an account of reality, as such. Pragmatists are indeed correct in saying that there is nothing at all to the truth of a proposition, over and above whatever it happens to take to make the proposition so. They are right about this, if we understand them simply as referring to the proposition unmarked, and in particular not marked as true. It is simply a tautology that there is no more significance to a proposition P than whatever P signifies. In affirming this with them, we must be careful to point out that we are talking about the propositions in question – not the propositions as-marked-true. The assertion of truth, by contrast, in any context of utterance, brings into the context the fact that norms of inquiry govern the proceedings. It reminds participants to the proceedings that there are imperatives imposed from the outside upon those engaged in the enterprise – whether or not they are internally motivated to comply with those imperatives. 'Truth' signals a context of imperatives above and beyond loyalties to personal goals. That is the dignity of truth.

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