

Pragmatism and Truth:

Charles Sanders Peirce

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Introduction

According to popular caricature, the pragmatic theory of truth is that truth is whatever it pays to believe. This was the view Russell attacked to great effect around 1907-8.

In this series of three essays, I shall show that Russell's caricature did not truly represent the founders of pragmatism in America. Even James, who came closest, takes a more nuanced (not to say incoherent) view. In this first essay, we consider Peirce, who - *pace* Rorty - has the best historical claim to be regarded as *the* founder of pragmatism.

Peirce on Pragmatism

What did Peirce mean by pragmatism? In a 1905 article 'What Pragmatism Is', Peirce described the attitude of 'the experimentalist' in this way:

...whatever assertion you may make to [the experimentalist], he will either understand as meaning that if a given prescription for an experiment ever can be and ever is carried in act, an experience of a given description will result, or else he will see no sense at all in what you say (Collected Papers, eds Hartshorne, Weiss and Burks, Harvard University Press, 1931-58, 5.411).

Peirce identifies himself as an 'experimentalist' in his own thinking, and expresses the guiding principle of the experimentalist mind-set as follows:

...a conception, that is, the rational purport of a word or other expression, lies exclusively in its conceivable bearing upon the conduct of life; so that... if one can define accurately all the conceivable experimental phenomena which the affirmation or denial of a concept could imply, one will have therein a complete definition of the concept, and *there is absolutely nothing more in it*. For this doctrine [I] invented the name *pragmatism* (italics in the original, *ibid.* 5.412-3).

Peirce has noticed, however, that his term has begun to be misused in the literary journals and scolded for inappropriateness by the British, prompting him to invent a new and uglier name for the same thing -

pragmaticism N1.

It will help to explain what Peirce means if we take an example. Suppose we come across someone who uses the word 'terp'. This person says some things are terp, others not. Once we realise that the concept has something to do with colours and shapes, we can show the terp-sayer various coloured cards. Each of these represents an 'experiment', and as we tally up the cards which are terp, we get a more and more complete list of the 'experimental consequences' of the term. Eventually, we understand the term, perhaps *better* than its original user. I suppose everyone will admit that this 'experimental method' is relevant to the meaning of 'terp', but Peirce's more extreme claim is that the list of experimental consequences *exhausts* the meaning of the term: a concept cannot acquire meaning - fundamentally - from any other source. And the radical upshot of Peirce's pragmaticism is that any term which cannot produce its experimental affidavits is meaningless.

Peirce himself mentions Kant, Berkeley and Spinoza - and elsewhere Comte - as predecessors in 'the ways of thinking of the laboratory'. Like Hume and empiricists generally, Peirce wants to sweep away speculative metaphysics as so much 'meaningless gibberish'.

As it stands, Peirce's principle is open to various objections. Later empiricists would argue that the equivocation between concepts and assertions needs to be resolved; that the idea of experiential consequences has to be limited in some way (since Peirce's idea of defining accurately *all* the conceivable experimental consequences is plainly utopian); and that concepts or assertions do not *have* experimental consequences taken one by one, but only taken as a whole. There is also the difficult question of the practical applicability of maths and logic: how can a *necessary* truth be genuinely subject to 'experiment'? Another problem concerns the science/metaphysics divide. Consider the 'hypothesis' - dreamed up by Russell - that the whole world was created five minutes ago, complete with fossils, carbon14 samples in different states of radioactive decay, false pseudo-memories, and so on. An empiricist naturally wants to rule this out as metaphysical, and the verificationists could at least promise to do this, since nothing in the world as it is could - *ex hypothesi* - verify or falsify the claim. Peirce's principle allows the hypothesis as meaningful (correctly) since it might certainly have an effect on our actions. But it seems less able than verificationism to explain why the claim seems absurd.

In a manuscript from c.1906 (unpublished, though clearly intended for publication), Peirce adds two important qualifications to pragmaticism as sketched above N2. The first is to limit the method to what he calls 'intellectual concepts', that is, 'those upon the structure of which, arguments concerning objective fact may hinge' (Philosophical Writings of Peirce ed. Buchler p.272). In other words, the method is to reveal the meaning of concepts which deal with objective fact. The second is to locate the intended effect of a sign (such as a concept) in the habits of action of the hearer or recipient. Peirce distinguishes the denotation of a sign from its signification - calling its signification the sign's 'interpretant' - and further, distinguishes three kinds of interpretant. The emotional interpretant is the feeling produced in the recipient: the energetic interpretant is the mental or physical effort resulting from reception of the sign: and the logical interpretant is 'a modification of a person's tendencies towards action' (ibid. p.277). Pragmaticism - as now explained - holds that an *intellectual* concept which has no effect on our *tendencies to action*, is literally non-sense.

Peirce comments that this is 'scarce more than a corollary' of Bain's definition of belief as 'that upon which a man is prepared to act' N3.

There will clearly be problems in saying that 'the rational meaning of every proposition lies in the future', as pragmatism implies (ibid. p.261). But Peirce moves to meet this kind of objection. He distinguishes between the first and the ultimate logical interpretant of a sign, and says that the first logical interpretant might be 'a mental sign... [which] must itself have a logical interpretant' (ibid. p.277). In this way, a proposition can have meaning in the here and now - in the present mental sign associated with it, or in a linguistic sign which might be offered in its place - even if its ultimate logical interpretant lies in future tendencies to action N4. Peirce concludes:

...the most perfect account of a concept that words can convey will consist in a description of the habit [=tendencies to action] which that concept is calculated to produce (ibid. p.286)

In other words, a mental or linguistic first interpretant can give an interim account of the meaning of a concept - and perhaps Peirce ought to say that the past and present tendencies to action associated with the concept more clearly reveal our existing interpretation of it - but for the 'most perfect' account, we have to look to the ultimate interpretant, which is to be given in terms of future tendencies to action.

Peirce's pragmatism is obviously a version of the empiricist demand that meaning must be based in experience: Ayer describes it, for example, as 'identical, for all practical purposes' to one version of verificationism N5. Thus, if truth is a problematic concept for empiricism, it should be a problem for Peirce. Our next question, therefore, is: what does Peirce's pragmatism mean for truth? What is the ultimate logical interpretant - the most perfect account - of the concept 'true'?

Peirce on Truth

Peirce's 1878 essay 'How to Make our Ideas Clear', though much earlier, tackles this problem in just the two-stage way we would expect. Peirce provides an 'abstract definition' of the concept 'real' (corresponding to the first logical interpretant of the concept), but also aspires to provide a 'clear idea' of it (corresponding to the ultimate logical interpretant). He defines the real as 'that whose characters are independent of what anybody may think them to be' (*Philosophical Writings of Peirce* ed Buchler p.36). In other words, anything which is not a figment or fiction - anything which is not made the way it is by someone's thought - is real. But Peirce considers true belief to be belief in the real (ibid). So we can define true belief, in an abstract (first interpretant) way, as belief in that whose character(istic)s are independent of thought. At this level, then, we have a generic correspondence theory: when a belief or representation conforms or corresponds to whatever it represents, it is true.

This is correct as far as it goes, Peirce believes, but unsatisfactory in that it produces no substantial gain in understanding. What is it for a thing to have a certain characteristic? Exactly, for a predicate to be *true* of it. The abstract definition quickly leads us back to the term we were trying to define (see for example Misak, *Truth and the End of Inquiry*, 1991, OUP, p.39).

In order to arrive at a 'clear idea' of truth, then, we need to look at its consequences in action. Peirce considers the example of different investigators trying to discover the velocity of light. They may use half a dozen different methods, and their results may at first diverge, but

...as each perfects his method and his processes, the results are found to move steadily together toward a destined centre... the process of investigation carries them by a force outside of themselves to one and the same conclusion... 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. This great hope is embodied in the conception of truth and reality. 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 ('How to Make our Ideas Clear' in Philosophical Writings of Peirce ed Buchler p.38).

In short, a 'clear idea' of truth, in terms of its connection with tendencies to action, is provided by the fact that investigative action is destined to converge on the true.

We will now marshal, and then evaluate, some familiar objections to this account. It is obvious, first, that the tendency Peirce is emphasising here is a tendency *of* action (a tendency of investigations to converge on a single result), not a tendency *to* action. Peirce even stresses that the tendency towards convergence operates (when we are dealing with the true) in spite of various human tendencies to try to 'escape the predestinate opinion'. Still, the tendency to convergence is a tendency evident in our experience of acting on the world, and that is empiricist enough. Here's an analogy: we experience a tendency in all our actions to be drawn back to the earth, and an empiricist might say that it is this tendency (expanded, perhaps, to include what we *would* experience if we were standing on the moon or drifting in outer space) which provides the real meaning - the 'most perfect' account, or the ultimate logical interpretant - of the word 'gravity'. It is perfectly acceptable to explain gravity in formulaic terms (as 'an attractive force between masses, proportional to the product of the masses over the square of the distance between them', or some such). But this abstract definition needs to be cashed out, ultimately, in experiential terms.

However, a consequence of this distinction between tendencies *of* action and tendencies *to* action, is that some external explanation is called for. Tendencies *to* action are explained, in many cases, by internal factors such as decisions and hopes: but tendencies *of* action typically require some external cause. Our actions are subject to gravity, for example, because we are close to the large mass we call the earth. Peirce therefore owes us an account of the external cause of convergence - the 'force outside' of ourselves. Common sense wants to say that different investigators converge on a particular value for the velocity of light, for example, because that *really* is its value. But for Peirce, to say that *c* really is the value is just to say that different investigators converge on it. This means he can only say that investigators converge on it because they converge on it - which is not much of an explanation.

Now it is possible to argue in response to this objection that we should distinguish between a causal relationship and a logical one. Could it not be that the real is *causally* responsible for convergence, while

nevertheless being defined in terms of it? This looks plausible, but I think it fails, for the following reason. It is important for causes to be identifiable independently of any particular effect, and vice versa: if a cause can *only* be identified through the claimed effect, we have the 'dormitive virtue' problem. That is, a purported causal explanation (such as 'Opium makes people sleepy because it contains a dormitive virtue') is worthless, if the alleged cause - the 'dormitive virtue' - can *only* be identified through its tendency to make people feel sleepy. If, by contrast, an alleged cause can be identified in other ways too, then the explanation becomes genuine. Acidity, for example, can be defined through a variety of different kinds of effect - among them a tendency to corrode metals - and it is because of this richness of causal role that the explanation, 'Substance X corroded its metal drum because it is acidic', is genuine.

So the question is: can 'the real' be defined through *other* effects than convergence? If not - and Peirce's discussion strongly suggests not - then the causal/logical distinction suggested above as a way of defending Peirce against the objection, is not available, because its causal side would be empty. It seems to me, therefore, that the objection stands: Peirce cannot *explain* convergence, in the cases where it happens, in terms of the reality of the object of investigation. And now, if Peirce has no explanation of convergence, why does he think it is a good thing? Why does it connect at all with what we ought to believe? Peirce's choice of the convergence of investigations, rather than for example their duration, nationality or expense, as the feature to connect with truth, looks unmotivated.

Let's consider another problem (objection 2). It often looks for a while as if investigators are converging on a particular result, only for later investigations to veer decisively towards something else. Now why shouldn't this misleading convergence persist, even in the long term? Why shouldn't our best efforts converge on a result which we never discover to be false? Perhaps we simply lack the cognitive or intellectual equipment - as a species - to converge on the true result. We might find ourselves compelled by our human nature to believe something which is in fact false, or we might be blinded by our nature to things which are true. But if these kinds of failure are possible, then truth must mean something more than (merely human) convergence, since we (mere humans) could converge on the false, or fail to converge on the true.

A natural response to this problem is to say that the convergence which guarantees truth involves *ideal*, rather than merely actual, investigations. The 'most perfect' account of truth explains it as that shared feature of beliefs which result from convergent investigations freed of all distorting and limiting effects - freed of prejudice and poor equipment, not limited by time, materials, funding, intelligence or anything else.

Unfortunately, this idealising move invites a third objection, which is that the more emphasis we place on *ideal* investigations (to escape the second objection), the more obvious it becomes that we can never be entitled to say that any particular belief is true. How could we know that any real process of investigation has been ideal in this more-than-human sense, or that it is now completed? Peirce wants to define truth in terms of inquiry, but in effect, objections 2 and 3, taken together, challenge him to find a balancing point between absurdly defining truth as something which could in fact be false (because the output of an actual inquiry), and absurdly defining it as something impossible to achieve (because requiring a more-than-

humanly ideal inquiry).

A fourth objection, considered by Peirce, is that there are surely facts about the distant past, which are now lost. Did Tutankhamun sneeze the day before he died? Many historical facts are lost - and *irretrievably* lost it seems. But if such facts lie beyond all possible investigation, then on Peirce's account, there are no truths about them, which means in turn that they cannot be called real. It follows that the fabric of the past is steadily dissolving into nothing: the past is real as long as it is recoverable, but unreal the moment after.

Peirce answers that further advances in science, continued over 'a million, or a billion, or any number of years you please' may make it possible to determine facts which now look irretrievable to us. And it is true that as long as this technological possibility remains, we cannot accuse Peirce of calling lost facts unreal. However, our best science at the moment suggests that there must indeed be facts which are irretrievably lost. If entropy increases, then information (since it depends on differences in energy levels) is genuinely lost - in which case no investigation, however technologically advanced, can converge on it. Quantum effects too mean that there will always be *some* uncertainty in our investigations, and this uncertainty will always be large enough to swallow *some* traces of past events. Peirce's definitions, therefore, do seem to imply (in conjunction with contemporary science) that some past facts are disappearing into unreality on a daily basis. To most people this will seem counter-intuitive, if not alarming. If we wait long enough, it will not just be *as if* Tutankhamun never lived - it really will be the case that he never lived.

Is there any response to this 'irretrievable but real' objection, other than what appears to be a nineteenth-century overconfidence in technology? Could we say, for example, that even if certain facts are irretrievable as a result of physical law, still, they are retrievable in theory? An investigation which was ideal in the extreme sense of transcending limitations due to physical law, would in theory discover Tutankhamun's sneeze and so certify it as real. Nicholas Jardine argues that this kind of 'counterfactual bravado' solves the problem. It may be, for example, that the science of the future will have mastered time travel. In that case, we can simply go back and look N6.

There are serious doubts of course about the intelligibility of time travel: we would have to say, for example, that a cause (such as pressing a button in 2050) can occur long after its effect (such as arriving in 1950), and this looks paradoxical. From the standpoint of 2000, we would have to say that an event which already exists, complete and unprovisional, depends for its existence on another event which does not yet exist. Given the close conceptual connection between existence and causal role, it seems strange to say that something which does not (yet) exist does nevertheless already have effects.

But let's set those problems to one side. What the 'counterfactual bravado' point says, in effect, is that if we *could* know things which we *cannot* know, then the fact that we cannot know them would not cast doubt on the meaningfulness of talking about them. For an empiricist like Peirce, however, what we can meaningfully say depends on what we can, as a matter of fact, know. His 'experimentalist' principle (with which we began) prevents us from conferring counterfactual meaning. And in any case, it is clear that he would not have sanctioned the extension of 'ideal' to include breaches in the laws of nature: the extension

he has in mind is to a technology of the far future. For Peirce, then, the problem of the vanishing past returns in full force.

An alternative response to the problem comes from Christopher Hookway, who points out that if all evidence for a fact has been swallowed by the passage of time, then it cannot be rational to assert that no such fact ever existed (see his Truth, Rationality and Pragmatism, OUP, 2002, p.61). The fact goes into the box marked 'undecidable', not the box marked 'non-existent'. This interpretation succeeds in avoiding the vanishing past, but it remains difficult to reconcile with common sense - and with the historical Charles Peirce. Peirce's definition of truth as the fated destination of inquiry now seems to have (at least) the Dummettian consequence that some factual statements are neither true nor false, since in some cases, no inquiry would lead either to the statement or its negation. But it is doubtful whether this rejection of bivalence would be acceptable either to the Peirce who described himself as a 'realist of a rather extreme stripe', or to common sense. For example, it introduces mutability into truth-values - a given time-specified proposition might be true while there is still evidence for it and undecidable the moment after. Accusing James of commitment to mutability, Peirce called it one of 'the seeds of death'. Perhaps Hookway's view, then, is best seen as a strategy by which a modern Peircean could try to escape from the vanishing past.

The fifth objection concerns the apparent contradiction between Peirce's 'abstract definition' and his 'clear idea' of truth. He writes:

...it may be said that this view is directly opposed to the abstract definition which we have given of reality, inasmuch as it makes the characters of the real depend on what is ultimately thought about them [whereas the abstract definition defined the real as what is independent of what anyone thinks] ('How to Make our Ideas Clear', see for example Philosophical Writings of Peirce ed Buchler, p.38-9)

Peirce's reply to this objection is to distinguish 'what so-and-so actually thinks' from 'what anyone *would* think'. He writes: 'the opinion which would finally result from investigation does not depend on how anybody may actually think' (ibid). In short, the real is abstractly defined as whatever is independent of the beliefs of any particular person or group. By contrast, the clear idea of the real is that it is specified by what an ideal investigator *would* think at the end of an ideal investigation.

Does Peirce mean to say, then, that the 'character of the real' *does* depend on what this hypothetical investigator would believe? Imagine such a person made real (remembering that if such a person cannot be real, we have scepticism again). Does his or her belief make a difference to 'the characters of the real'? If yes, then there is a contradiction with the abstract definition after all. But if no, then Peirce's escape from the objection turns more on some difference in the idea of independence, than on the difference between actual and hypothetical investigators. What resolves the contradiction, in other words, is a difference between the *kind* of independence a real thing has from any actual belief, and the *kind* of dependence it has on the hypothetical investigator's belief.

The most natural way to expand this difference is to invoke the causal/logical distinction again, and say that the real does not *causally* depend on what anyone believes (even the ideal investigator), but that

the *meaning* of 'X is real' connects with experience in that the ideal investigator would believe it. But this makes us wonder whether 'ideal' itself has enough of a basis in experience to give meaning to 'X is real' - a question we would have come to sooner or later in any case.

It is clear that ideal investigators figure much less prominently in our experience than real things. How, then, can the former provide the experiential basis for the meaning of the latter? Wouldn't it be more accurate to say that our only 'clear idea' of an ideal investigator or investigation is that it is one which puts us in touch with reality? Isn't it the case that we only call a certain state of the investigator's mind prejudice or stupidity, a certain state of the test tubes or petri dishes contamination, a certain state of the microscope faulty alignment, and so on, because these things tend to weaken our hold on reality? Suffice it to say, for the time being, that there is at least an air of paradox about advancing something not experienced as the experiential basis of something experienced constantly.

Let me summarise the objections we have considered against Peirce's account. It seems, first, that the common sense explanation of convergence between independent investigations (that they converge on something because there is a determinate reality out there for them to converge on) is not available to Peirce. This being so, it is a mystery why convergence should be A Good Thing. Objections 2 and 3 can be combined as a dilemma. Convergence either is or is not capable of leading us astray in the long term. If it is, then it cannot define reality - or through it, truth - because it might lead us to something not real. But if convergence *cannot* lead us astray, this can only be because we mean *ideal* convergence. And in this case, it becomes impossible in practice to pronounce anything real, or any statement true. Objection 4 is that Peirce's account implies that whatever we cannot converge on cannot be real. We normally think, however, that there are indefinitely many lost facts in the more or less distant past: we cannot converge on these but they are nevertheless real. Objection 5 concerns the conflict between Peirce's abstract definition and his clear idea of reality. Peirce's response to this, turning on the difference between what people actually believe and what they would believe, seemed unsatisfactory, and the most natural alternative sharpened objection 1 and prompted objection 6 - that 'an ideal investigation' cannot provide the experiential cash value of the concepts of reality or truth, since it has less of a basis in experience than they do.

In all this, I have been using the term 'ideal', in spite of the fact that Peirce tends to use other expressions. He sometimes talks of investigation 'carried sufficiently far', or 'pushed far enough', sometimes of the belief investigators would 'ultimately come to'. At other times, he talks of investigators being 'fated' or 'destined' to arrive at a certain belief. We should obviously ask whether, by replacing these expressions by the term 'ideal', we have not robbed Peirce of some important resource.

Peirce's talk of fate, destiny and fore-ordination, is, I take it, metaphorical. He does not believe that any real agency selects certain beliefs for our destination. What about 'the beliefs investigation would arrive at if carried sufficiently far', or (a similar formulation suggested by Misak, *ibid.* p.154) 'the best that inquiry would do, given as much time and evidence as it takes to reach beliefs which would not be overturned'? There seems to be a straightforward ambiguity in Peirce's phrasing, between sufficiently = very, and sufficiently = far enough to succeed. If 'sufficiently' means 'very', there is no guarantee that the resulting belief will be true: if it means 'far enough to succeed', the 'clear idea' collapses, because

'succeeding' here can only mean achieving truth or capturing reality, making tacit use of the ideas we set out to define. In the same way, 'would not be overturned' (in Misak's formulation) might mean 'would not as a matter of historical fact be overturned', in which case the account is faulty, since as Peirce himself admits, it is possible for a false belief to be adhered to indefinitely. Or it might mean 'would not *properly* be overturned', in which case the question 'Why not?' reveals a hidden dependence on the idea of truth: the only reason a belief would not properly be overturned is because it is *true*. But this means that the 'clear idea' we are being offered, is that a belief is true if people would accept it because it is true N7.

I conclude that the use of the term 'ideal' does not deprive Peirce of anything important. As William Alston says, 'Peirce, in speaking of what would "be ultimately agreed to by all who investigate" is naturally taken as supposing that the limit of the process of inquiry would be an ideal epistemic situation in which all the relevant facts are in' (*A Realist Conception of Truth*, Cornell University Press, 1997, p.195). The six objections summarised above can be reformulated to apply to 'investigations carried sufficiently far' as much as to 'ideal investigations'.

But we must now ask how much real force there is in these objections. Are they as compelling as they may at first appear? Peirce rejects any notion of truth as something more than fixation of belief. He writes:

If your terms "truth" and "falsity" are taken in such senses as to be definable in terms of doubt and belief and the course of experience (as for example they would be, if you were to define the "truth" as that to a belief in which belief would tend if it were to tend indefinitely toward absolute fixity), well and good: in that case, you are only talking about doubt and belief. But if by truth and falsity you mean something not definable in terms of doubt and belief in any way, then you are talking of entities of whose existence you can know nothing, and which Ockham's razor would clean shave off (see 'What Pragmatism Is', in *The Monist*, 1905, reprinted in *Philosophical Writings of Peirce* ed Buchler, p.257).

Peirce displays here - in stark form - the radical empiricist tendency to discard concepts, or to reconstrue aspects of concepts, which seem to go beyond all possible experience. More recently, Michael Dummett has issued the same empiricist challenge:

...the notion of truth, when it is introduced, must be explained...in terms of our capacity to recognize statements as true, and not in terms of a condition which transcends human capacities (see 'What is a Theory of Meaning II?' reprinted in Dummett's *The Seas of Language*, Oxford University Press, 1993, p.75)

Here is Peirce again (quoted in Misak, *ibid.* p.29n): 'what else...can our "truth" ever amount to, other than the way in which people would come to think if research were carried sufficiently far?'

So if the above objections depend on an evidence-transcendent idea of truth, they can only serve as reminders of what Peirce has already given up. Similarly, if the objections apply quite generally to

empiricists, then they are not distinctively problems for Peirce's account of truth.

Thus the most colourful of the objections - from the vanishing past - is a typical problem for empiricists. Ayer felt compelled to re-interpret statements about the past as statements about present and future evidence (in Language, Truth and Logic Penguin 1976 p.102-3, 188-9), though in the Appendix he recoiled from the strangeness of that view. In a recent book (Truth and the Past, Columbia University Press, 2004), Dummett took up this problem again from his early essay 'The Reality of the Past', saying frankly that the outcome of that essay was

the most disappointing possible. Antirealism about the past was not incoherent; but it was not believable, either. I have been perplexed by this matter ever since (ibid. p.45).

The point here, however, is not to assess Dummett's interesting approach, but merely to show that Peirce is not alone in his struggles with the reality of the past. Peirce's attempt to deal with the problem has its own strengths and weaknesses, but we cannot suppose that his theory of truth has brought this problem uniquely down on his head.

It might also be argued that the first objection - that Peirce cannot explain convergence - depends on a concept of reality as something which lies *beyond* our best attempts at investigation. Something which *explains* why we get the totality of evidence we do, must be evidence-transcendent. It therefore depends on a concept of truth which Peirce has explicitly given up.

Hookway regards this objection as more serious. He writes:

If the present truth *consists in* what will or would be judged... what sense can we attach to the idea that these future or hypothetical inquirers would be discovering rather than inventing facts? (Truth, Rationality and Pragmatism, OUP, 2002, p.123).

Hookway agrees that Peirce's account does not attempt to say what truth consists in, in any metaphysical sense, but is rather intended to explain what we *mean* when we talk about truth. Nevertheless, he claims that 'the metaphysics is called for to explain how it is possible to have this concept' (ibid. p.124). In other words, our intuition that inquirers at the end of an ideal inquiry would be discovering rather than inventing facts, commits us to the metaphysical view that there must be something - some 'force' - beyond us which determines the results of that inquiry. And this 'producer of convergence' is something which, as we have seen, Peirce cannot provide. Hookway's conclusion is that 'Peirce was not clear about these issues', and that this was a problem 'which he could not solve to his satisfaction' (ibid. p.124).

But perhaps Peirce could have resolutely pursued the claim that no content can be attached to this concept of a 'producer of convergence' - even though this would apparently be at the expense of other, realist, views he held. It might still be possible to draw a distinction between discovery and invention - for example, in terms of their different relationships with perception - even without a concept of reality as that which underlies and explains convergence. It must be admitted, however, that this is taking us away from

the historical Peirce.

If objection 1 might be avoidable in this way, what about the 2/3 dilemma? Neither objection 2, which forces Peirce towards idealisation, nor objection 3, which draws from idealisation a sceptical conclusion, depend on evidence-transcendent truth. Their point is that identifying truth with ideal evidence is as vulnerable to scepticism as placing it beyond all evidence. The force of the 2/3 dilemma therefore depends on how worried we are - or how disturbed Peirce would be - by the possibility of scepticism. Suffice it to say for the moment that, for all objection 3 tells us, we might have good reason to believe that a particular investigation was at least close to ideal, and therefore good reason to ascribe truth. It seems to me, therefore, that Peirce may well have defences against the 2/3 dilemma, as he did against objections 1 and 4.

Objection 5 - the conflict between abstract definition and clear idea - looks avoidable in one way or another N8. But objection 6 looks serious. The whole point of Peirce's 'clear idea' was to anchor the concepts of reality and truth in experience. But how can something we *don't* have experience of (an ideal investigation) provide concepts with empiricist content? As Michael Williams says:

So far as I can see, we have little or no idea of what it would be for a theory to be ideally complete and comprehensive in the way required, or of what it would be for inquiry to have an end (Unnatural Doubts Princeton University Press, 1996, p.233, N9).

My own belief (argued in more detail elsewhere) is that limit-construction can indeed provide new content, which - though it goes beyond experience - is nevertheless grounded in experience. It is hard to say how such processes of limit-construction are to be justified. But it is not impossible that adoption of a particular limit, since it is a guide to *practice*, might be justified by reference to the good effects it produces.

Conclusion

We should draw two conclusions from the above discussion. First, that the standard objections to a Peircean account of truth are less compelling than they may seem. And second, that if Peirce's account is 'pragmatist', in anything like the caricature sense, it is only because a limit can be justified in terms of the good effects of adopting it.

NOTES

N1 Peirce also had reservations about James' version of pragmatism, and for more on this, see for example Christopher Hookway's 'Logical Principles and Philosophical Attitudes' in The Cambridge Companion to William James ed Ruth Anna Putnam, CUP, 1997, p.145-165.

N2 'Pragmatism in Retrospect: A Last Formulation' in Philosophical Writings of Peirce ed Justus Buchler, Dover 1955, p.269f.

N3 See Philosophical Writings of Peirce ed Justus Buchler, Dover 1955 p.270, and for more on Peirce's formulations of pragmatism, see Cheryl Misak's Truth and the End of Inquiry, 1991, OUP, Ch 1, and

Christopher Hookway's 'The Principle of Pragmatism: Peirce's Formulations and Examples' in Midwest Studies in Philosophy: The American Philosophers eds PA French and HK Wettstein, vol XXVIII, Blackwell 2004, p.119-136.

N4 A *particular* action cannot be the ultimate logical interpretant, Peirce says, because a particular action lacks generality: *tendencies* to action supply this necessary generality. For more on this point, see Richard Bernstein's Praxis and Action, Univ of Pennsylvania Press, second ed. 1999, p.186.

N5 See The Origins of Pragmatism, Macmillan 1968, p.55 (and also The Central Questions of Philosophy, Penguin 1973, p.31), where Ayer cedes priority to pragmatism: '...though the logical positivists were mainly ignorant of pragmatism, many of their theses had been anticipated by Peirce and to a lesser extent by William James'.

N6 See The Fortunes of Inquiry, OUP, 1986 p.56.

N7 The same objection seems to apply to Misak's recent formulations, see her 'Scientific Realism, Anti-realism, and Empiricism' in A Companion to Pragmatism eds Shook and Margolis, Wiley-Blackwell, 2009, p. 400-402.

N8 See Hookway's 'Truth and Correspondence' in Truth, Rationality and Pragmatism, OUP, 2002, p.82-107 for one thoughtful attempt to reconcile them.

N9 Crispin Wright's notion of 'superassertibility' is a response to precisely this problem. Wright argues that 'the property of being justified by some (in principle accessible) state of information and then *remaining* justified no matter how that state of information might be enlarged upon or improved' (Truth and Objectivity, Harvard University Press, 1992, p.47) is a plausible account of truth for at least some realms of discourse, and one which does not require us to 'grasp the idea of a limit to such improvement'.