C. S. Peirce on Vital Matters

C. S. Peirce sobre assuntos vitais

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Abstract: C.S. Peirce is infamous for his assertion that the ideas of truth and belief are out of place in vital or ethical matters. We must go on instinct and custom. But he also asserts that his view of truth is applicable to ethics - a true belief about what is right or wrong is the belief that would stand up to all deliberation, experience and argument. I shall resolve this tension in Peirce's work in favor of the cognitivist reading. That is, I shall argue that Peirce presents us with an attractive view of truth which makes sense of the thought that our moral judgements aspire to truth.

Key-words: truth, inquiry, Experience, belief, ethics.

Resumo: C.S. Peirce é famoso por sua afirmação de que as idéias de verdade e crença não se relacionam a questões vitais ou éticas. Devemos contar com o instinto e o costume. Mas ele também afirma que sua visão da verdade é aplicável à ética – uma crença verdadeira a respeito do que é certo ou errado é a crença que suportaria toda deliberação, experiência e argumentação. Eu solucionarei essa tensão na obra de Peirce em favor da leitura cognitivista. Em outras palavras, argumentarei que Peirce nos apresenta uma visão atrativa da verdade, que compreende a idéia de que nossos juízos morais aspiram à verdade.

Palavras-chave: verdade, inquirição, experiência, crença, ética.

1. Introduction

C. S. Peirce argued that a true belief is the belief we would come to, were we to inquire as far as we could on a matter. A true belief is a belief which could not be improved upon, a belief which would forever meet the challenges of reasons, argument, and evidence.

Peirce initially put this idea in the following unhelpful way: a true belief is one which would be agreed upon at the hypothetical or 'fated' end of inquiry. (See W3:273, 1878) It is this formulation which is usually attacked by those who see little value in the pragmatist view of truth. But a much better formulation is this: a true belief is one which would withstand doubt, were we to inquire as far as we fruitfully could into the matter. A true belief is such that, no matter how much further we were to investigate and debate, it would not be overturned by recalcitrant experience and argument. (CP 5.569, 1901, 6.485, 1908) I have argued elsewhere (Misak 2000:49f)

that this formulation, unlike the first, is not vulnerable to the standard objections to the pragmatist account of truth.

I have also argued (Misak 2000) that this formulation is very friendly to cognitivism about morals - very friendly to the idea that moral judgements fall within the scope of truth, knowledge, and inquiry. Our ethical beliefs might well have the same sorts of aspirations to truth as our beliefs in science, mathematics, and discourse about ordinary middle-sized objects.

It is a commonplace that the correspondence theory of truth, because it makes essential reference to a mind-independent or physical world, is not friendly to the truth-aptness of moral judgement - what bit of the world could moral judgements possibly correspond to? And relativism or subjectivism is unfriendly to truth in general, for it suggests that a belief can be true for some and false for others, or true at one time and false at another. But truth is something which is stable - it does not vary from person to person or culture to culture or time to time. On Peirce's view, there is a truth to which our judgements, moral or otherwise, *can* aspire. Either a belief is the belief which would best stand up to experience and argument, or it is not.

At times Peirce appears to wholeheartedly embrace the cognitivist view I would like to attribute to him - he happily extends his view of truth and inquiry to moral judgements. Here are two passages in which his cognitivist intentions are apparent. In the first, after saying that a true belief is one that would survive the rigours of inquiry, he says that beliefs in ethics can be true or false. In the second, he suggests that moral judgement draws on experience - experience which is not identical to that which is found in science, but experience nonetheless.

> (i) But what else, when one considers it, can our 'truth' ever amount to, other than the way in which people would come to think if research were carried sufficiently far? That would seem to be all that *our* truth ever can be. So good morals is the kind of human behavior that would come to be approved if studies of right behavior were carried sufficiently far. Would it not be a good idea to begin a text-book of ethics ... with this definition 'Ethics is the theory of how to do as one would like if one had considered sufficiently the question of what one would find satisfactory? (MS 673, p.12-13, 1911)[1]

> (ii) Ethics as a positive science must rest on observed facts. But it is quite a different thing to make it rest on special scientific observation ... The only solid foundation for ethics lies in those facts of everyday life which no skeptical philosopher ever yet really called in question. (CP 8.158, 1901, see also 1.600, 1903)

1. This manuscript, titled 'A Sketch of Logical Critic' is a gem, as it also contains a statement of considerable importance for Peirce's view of belief: 'But it is one of the essentials of belief, without which it would not *be* belief, that it brings peace of mind, or at least relief from the struggle of doubt; so that a man could hardly be considered sane who should wish that, though the facts should remain lamentable, he should believe them to be such as he would wish them to be.' (p.11, see also the variant MS 675, p.8.) See MISAK (1991:59ff) and WIGGINS (1999) for the significance of this thought.

But, as is usually the case with interpreting Peirce, matters are not quite so straightforward. When I first set out a pragmatist account of how moral judgement might be truth-apt, I said that Peirce himself had only unhelpful things to say about ethics. (Misak 2000:48) He was frequently keen to insist that in 'vital' or ethical matters, one must eschew reason in favour of instinct. In vital matters, we need to reach a definite conclusion promptly. Science, on the other hand, 'has nothing at stake on any temporal venture but is in pursuit of eternal verities ... and looks upon this pursuit, not as the work of one man's life, but as that of generation after generation, indefinitely'. (CP 5.589, 1898) Science is thus concerned with truth and ethics is not. The flip side of the point, he says, is that 'really the word belief is out of place in the vocabulary of science'.(CP 7.185, 1901) All science concerns itself with is a 'formula reached in the existing state of scientific progress' - not a belief upon which to act.

Peirce appears to offer us here an extreme kind of non-cognitivism, where matters of ethics do not fall under the scope of truth, knowledge, and inquiry. Ethics is a matter for gut-reaction. The preservation of the status-quo seems inevitable. Indeed, Peirce is clear that__his view, which he at times calls 'sentimentalism', 'implies conservatism'. (CP 1.633, 1898) Ethics, he sometimes says, is in fact nothing but a sort of composite photograph of the conscience of the members of the community. In short, it is nothing but a traditional standard, accepted, very wisely, without radical criticism, but with a silly pretence of critical examination. (CP 1.573, 1905)

We seem to have the suggestion that our cognitivist practices - debating and reasoning about moral matters and trying to improve our views - are based on an error, as Mackie (1977) would say.

I shall try to resolve this tension in Peirce by carefully setting out the background to the cognitivist thoughts expressed in passages (i) and (ii). My argument shall be that if one looks at Peirce's epistemology, about which he did not waver, one can see that his remarks about instinct can be folded into the cognitivist view. That is, the odd-sounding view that ethics must go on instinct and that belief is out of place in science fits, rather than jars, with Peirce's epistemology and view of truth.

2. Truth and Inquiry

Peirce famously argued (in, for instance, 'The Fixation of Belief') that inquiry begins with the irritation of doubt and ends with a stable doubt-resistant belief. If we were to have a belief which would always be immune to doubt – which would forever fit with experience and argument, then Peirce holds that the belief is true. Since we can never know when a belief is like that, we must take our beliefs to be fallible. They might be shown to be false.

Fallibilism, however, does not entail that we ought to follow Descartes and try to bring into doubt all beliefs about which error is conceivable. Such doubts would be, Peirce argued, 'paper' or 'tin' – not the genuine article. He says:

> ... there is but one state of mind from which you can 'set out', namely, the very state of mind in which you actually find yourself at the time you do 'set out' –

> a state in which you are laden with an immense mass of cognition already formed, of which you cannot divest yourself if you would ... Do you call it doubting to write down on a piece of paper that you doubt? If so, doubt has nothing to do with any serious business... (CP 5.416, 1905)

Our body of background beliefs is susceptible to doubt on a piecemeal basis, if that doubt is prompted by surprising or recalcitrant experience. We must *regard* our background beliefs as true, until some surprising experience throws one or some group of them into doubt. The inquirer 'is under a compulsion to believe just what he does believe ... as time goes on, the man's belief usually changes in a manner which he cannot resist ... this force which changes a man's belief in spite of any effort of his may be, in all cases, called a *gain of experience*'. (MS 1342, p.2, undated)

So on the Peircean epistemology, an inquirer has a fallible background of 'commonsense' belief which is not in fact in doubt. Only against such a background can a belief be put into doubt and a new, better, belief be adopted. All our beliefs are fallible but they do not come into doubt all at once. Those which inquiry has not thrown into doubt are stable and warrant our belief.

Peirce links the scientific method to this epistemology. It is the method which pays close attention to the fact that beliefs fall to the surprise of recalcitrant experience. Inquiry 'is not standing upon the bedrock of fact. It is walking upon a bog, and can only say, this ground seems to hold for the present. Here I will stay till it begins to give way'. (CP 5.589, 1998) Accepted hypotheses and theories ('established truths') are stable and believed until they are upset by experience.

The scientific method is also the method which leads to the truth. We aim at beliefs which would be forever stable - we aim at getting the best beliefs we can. We have in our various inquiries and deliberations a multiplicity of local aims - empirical adequacy, coherence with other beliefs, simplicity, explanatory power, getting a reliable guide to action, fruitfulness for other research, greater understanding of others, increased maturity, and the like. When we say that we aim at the truth, what we mean is that, were a belief really to satisfy all of our local aims in inquiry, then that belief would be true. There is nothing over and above the fulfillment of those aims, nothing metaphysical, to which we aspire. Truth is not some transcendental, mystical thing which we aim at for its own sake.

This epistemology and its accompanying view of truth is entirely general, despite the fact that Peirce calls it the method of science. Any inquiry that aims at getting a belief which would forever stand up to experience and argument abides by the method of science. We shall see that Peirce thought that metaphysics (when it is well-conducted) and mathematics are legitimate aspirants to truth. And so is moral deliberation.

This means that Peirce thought that metaphysics, mathematics and morals could satisfy his pragmatist maxim - the maxim that a genuine belief must be linked to experience. I have elucidated elsewhere both the semantic and the epistemological arguments in this thought's favour[2] - in the next section, I will simply gesture at them.

2. MISAK (1995), especially pp.59ff, 97-127, 152-162, 171-178.

3. Experience: mathematical, metaphysical, and moral

Peirce thought that the motto 'Do not block the way of inquiry' 'deserves to be inscribed upon every wall of the city of philosophy'. (CP 1.135, 1899, see also 7.480, 1898) A hypothesis which has no consequences, which is severed from experience, would be useless in inquiry. It would be, as Wittgenstein put it, a cog upon which nothing turned. Investigation into such hypotheses is bound to be barren and to direct attention away from worthwhile pursuits.

We can accept the idea that a belief must be responsive to experience without committing ourselves to anything as strong as the verificationism of the logical positivists. For Peirce takes the kind of experiential consequences required of various beliefs to be very broad indeed. Perception or experience is anything that is forced upon one. It goes far beyond what our ears, eyes, nose, and skin report:

> ...anything is, for the purposes of logic, to be classed under the species of perception wherein a positive qualitative content is forced upon one's acknowledgement without any reason or pretension to reason. There will be a wider genus of things *partaking* of the character of perception, if there be any matter of cognition which exerts a force upon us (...) (CP 7.623, 1903, see also 6.492, 1896)

Peirce takes anything that is compelling, surprising, brute, or impinging to be an experience, regardless of what causes us to feel compelled and regardless of whether we can identify the source of the compulsion: "The course of life has developed certain compulsions of thought which we speak of collectively as Experience" (CP 8.101, 1900). "Experience just is whatever prevents someone from believing exactly what he *wants* to believe - it is what keeps us in check" (MS 1342, undated, see also MS 408, p. 146, 1893-95).

Peirce argues that there are two kinds of experience - 'ideal' and 'real'. The latter is sensory experience and the former is experience in which "(...) operations upon diagrams, whether external or imaginary, take the place of the experiments upon real things that one performs in chemical and physical research" (CP 4.530, 1905, see also 3.516, 1896).

This sort of thought experiment or diagrammatic experiment or experiment in the imagination is, Peirce argues, the core of mathematical and deductive inquiry. 'The mathematician, like every other inquirer, begins by a conjecture, which usually is that a certain transformation of his icon [diagram] will lead him to, or towards, the end of his inquiry. He then performs that experiment ...'[3] He draws subsidiary lines in geometry or makes transformations in algebraic formulae and then observes the results. Those results might be surprising, and since surprise is the force of experience, such reasoning is an experiment. This sort of experiment "is truly observation, yet certainly in a very peculiar sense; and no other kind of observation would at all answer the purpose of mathematics" (CP. 1.240, 1902).

3. MS 328, p.43, 1905. See also CP 3.363, 1885, see also 4.233, 1902, 1.322, 1903, 5.162, 1903, 6.568, 1905.

Similarly, in valid deductive reasoning, we are compelled to accept a conclusion - the facts stated in the premisses could not be, if the fact stated in the conclusion were not. The conclusion is, in the first instance, irresistable. It comes upon the mind before one can control it. Only later do we critically compare the conclusion to our norms and ideals.[4]

Peirce sometimes puts his point about the breadth of experience by saying that everyone inhabits two worlds - the inner and the outer. We react with the outer world through the clash between it and our senses, and we react with the inner world - the world of mathematics, logic, and reasoning - by performing thought experiments. Inquiry, Peirce says, has "two branches; one is inquiry into Outward Fact by experimentation and observation, and is called *Inductive Investigation*; the other is inquiry into Inner Truth by inward experimentation and observation and is called *Mathematical* or *Deductive Reasoning*".[5]

> The distinction between the two different sorts of experience is that the inner world exerts a comparatively slight compulsion upon us and we can change it, whereas the outer world is full of irresistible compulsions and is hard to change. (CP 5.474, 1907, 5.45, 1903) But nonetheless, 'the inner world has its surprises for us, sometimes'. (CP 7.438, 1893) He intends to leave the difference between the two sorts of experience vague: "We naturally make all our distinctions too absolute. We are accustomed to speak of an external universe and an inner world of thought. But they are merely vicinities with no real boundary between them" (CP 7.438, 1893).

Perhaps the contrast between the two sorts of experience is best made by Peirce's distinction between practical and theoretical belief. In the 1902 manuscript 'Reason's Rules' (CP 5.538-545), he says that a practical belief such as 'anthracite is a convenient fuel' will manifest itself in a disposition to behave on the part of the believer. All things being equal, she would sometimes use anthracite were she in need of a fuel. In addition, 'sensible' or empirical consequences can be derived from the hypothesis. For instance, if (*ceteris paribus*) you were to light it, it would burn. On the other hand, a 'purely theoretical' belief has to do not with 'habits of deliberate action' or with sensible consequences, but with 'expectations'. As examples of theoretical hypotheses Peirce offers 'there is an imaginary circle which is twice cut by every real circle' and 'the diagonal of a square is incommensurable with its side'. Of the latter, he says that although it is 'difficult to see what experiential difference there can be between commensurable and incommensurable magnitudes', there are nevertheless expectations: "(...) a belief about the commensurability of the diagonal relates to what is expectable for a person dealing with fractions; although it means nothing at all in regard to what could be expected in physical measurements (...)" (CP 5.539, 1902).

The pragmatic maxim asserts that if it is not to be 'metaphysical jargon and chatter', a belief must have a link with experience - it must issue in expectation for

4. MS 453, loose sheets, 1903. See also CP 2.96, 1902, 6.497, 1906.
5. MS 408, pg.150, 1893-5, see also CP 3.527, 1896.

practice or theory. If there is an expectation, then the unexpected can surprise the believer. The only difference between a practical and a theoretical belief, says Peirce, is that the former involves sensation that is 'muscular' and the latter involves sensation that is not muscular. (CP 5.540, 1902)

Thus Peirce thought that hypotheses in religion must issue in expectations. In *A Neglected Argument for the Reality of God* he sets himself the task of showing how the hypothesis of God's reality gives rise to expectations. In each of the three drafts of the paper, he breaks off in frustration. Each time he begins to talk about "tracing out a few consequences of the hypothesis", he abruptly changes the subject. (See, for instance, MS 842, p.127) All he can come up with is that if "God is real" were true then we would expect there to be a tendency towards growth and "habit-taking" and we would expect that things would be harmonious in the world.[6] At the end of the 1910 "Additament" to the paper, he rather disingenously says "The doctrine of the *Ens necessarium* has a pragmaticist meaning, although I will not here attempt to sum up the whole of its meaning". (MS 844, last page, see also CP 6.491, 1910)

Clearly many wrinkles in Peirce's brand of pragmatism need to be worked out. But, just as clear is the fact that we do not need to say, with the logical positivists, that only beliefs in the physical sciences meet the pragmatist standard. Will hypotheses about what is right or wrong, or just or unjust, meet the demand - can they be shown to be sensitive to experience so that they are candidates for belief and for truth-values? Do they set up expectations which can be met or unmet? We saw in the introduction that Peirce sometimes very clearly said that moral judgements are linked to experience or "observed facts". These are the "observations of everyday life", observations which do not require special training or equipment.

Those who are familiar with Peirce's writings will immediately see that these thoughts are remarkably similar to his statements about metaphysics. Metaphysics, he says, is thought to be inscrutable "because its objects are not open to observation". But the blame for the "backward state" of metaphysics cannot be laid there, as metaphysics is indeed an "observational science". (CP 6.5, 1898) It "really rests on observations ... and the only reason that this is not universally recognized is that it rests upon kinds of phenomena with which every man's experience is so saturated that he usually pays no particular attention to them". (CP 6.2, 1898) Observations in the special sciences require special instruments, precautions and skill because they are remote from everyday life. (1.242, 1902) Other phenomena, such as that which metaphysics studies, are "harder to see, simply because they surround us on every hand; we are immersed in them and have no background against which to view them". (CP 6.562, 1905, see also 1.134, 1901) They are commonplace and banal, but they are observations nonetheless.

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6. HOOKWAY (2000: 273f) suggests that Peirce backed off the idea that one must find evidence for the hypothesis of God's reality, suggesting that the model of abduction, deduction, induction is being stretched to fit the religious question. I think that Peirce just couldn't find such evidence and only then did he back off the idea that he must find it. See (CP 1.91, 1896) for the claim that whether prayers are efficacious is a question "open to experimental inquiry".

There certainly is *prima facie* reason to think that Peirce is right in thinking that the practice of moral deliberation is responsive to experience, broadly construed. For when we deliberate about what we ought to do, we take ourselves to be sensitive to reasons, argument, thought experiments, and first-person experience. We try to put ourselves in the shoes of others, to broaden our horizons, to listen to the arguments of the other side. That is part of what it is to make a moral decision and part of what it is to try to live a moral life. It wouldn't be a moral life - it would not be engaged with the complexities of moral requirements - if we simply made our decisions about how to treat others by following a oracle, or an astrologer, or the toss of the dice.[7]

Of course we must be prepared for the possibility that, as Bernard Williams thinks, "ethical thought has no chance of being everything it seems". (1985:135) But the commitment to keeping philosophy in touch with experience and practice is such that we should not be too quick to jump to this conclusion.

4. The tension between vital matters and science

We now have a sketch of Peirce's epistemology and of how it seems friendly to the idea that moral judgements might be candidates for truth. But we have yet to resolve the tension in Peirce's work. How can we cope with his statements that science, but not ethics, goes on the hope that "the truth may be found, if not by any of the actual inquirers, yet ultimately by those who come after them and who shall make use of their results"? (CP 7.54, 1902) How can we cope with the thought that in vital matters, we do not aim at getting the answer in the long run, but rather, we follow instinct, convention, and commonsense in order to get an answer here and now?

There is no use denying that the distinction between vital and scientific matters was dear to Peirce. But it is far less damaging for the cognitivist position than it first appears. Once we understand what Peirce means by "instinct", "experience" and "commonsense" and once we understand their roles in what he calls scientific inquiry, we can see that vital matters are indeed matters for scientific inquiry.

Peirce builds instinct into the scientific method - the method of abduction, deduction, induction. Abduction is a matter of coming up with (Peirce sometime says "guessing at") an explanation for a surprising experience. Then one deduces consequences from the hypothesis and tests it by induction. Abduction provides science with new ideas and thus science advances by "the spontaneous conjectures of instinctive reason". (CP 6.475, 1908, 5.604, 1901) When a surprising phenomenon needs explanation, instinct plays a central role. It provides the fallible starting points of the scientific method - the hypotheses whose consequences are then tested by induction. That is one way in which instinct, rather than being set against science or inquiry which is aimed at truth, is a part of it.

7. See MISAK (2000) for a sustained discussion of these issues.

Another way in which instinct is a part of science is as follows: "when one fact puts a person in mind of another, but related, fact, and on considering the two together, he says to himself 'Hah! Then this third is a fact', ... it is by *instinct* that he draws the inference" (MS 682 p.19, 1913). If you feel that an inference is correct, that feeling is very much like the feeling that something is red. You have no *reason* to accept the judgement – it just comes upon you. It is thus a kind of experience or perception. This is not to say it is infallible - it is as fallible as all kinds of experience. (See CP 1.404, 1890)

Thirdly, instinct is aligned to our habits of reasoning, in Peircean terminology, our logical utens. Reasoning "is the principal of human intellectual instincts ... reasoning power is related to human nature very much as the wonderful instincts of ants, wasps, etc. are related to their several natures". (MS 682 p.8-9) Our instinctive and habitual cognitive skills, as Hookway (2000:255) puts it, guide our inquiries. Of course, these habits can be flawed, but we nonetheless rely upon them until they are shown to be flawed - until we have evidence that they lead us astray or until we can explain what is wrong with them. If we are to continue to inquire, we must assume that our stock of habitual cognitive skills is reliable. Peirce is crystal clear that something's being such a regulative assumption of inquiry does not mean that it is true. But something's being a regulative assumption of inquiry does entail that we should believe it and that we should construct our philosophy so as to make room for its truth. (See also Misak 1991:140f)

And finally, instinct is, for Peirce, also aligned with that which is not doubted – that which forms our "commonsense" fallible background body of beliefs. Writing in an entirely general way about belief and inquiry, Peirce says "... the pragmatist will accept wholesale the entire body of genuine instinctive beliefs without any shade of doubt, tossing aside the toy doubts of the metaphysician as unworthy of a mature mind". (MS 329 p.12, 1904)[8] That is what Peirce means when he says that instinct is just the expression of the conventional status quo. Even if you think, generally, that trusting instinct is "treacherous and deceptive", if you don't doubt something and have never doubted it, you will believe it. Thus: "that which instinct absolutely requires him to believe, he must and will believe it with his whole heart". If something seems perfectly evident, you can try as you will to criticise it, but you will eventually be obliged to believe it. By "commonsense" and "instinct", Peirce means "those ideas and beliefs that a man's situation absolutely forces upon him". (CP 1.129, 1905) Instinct is that which we have no choice but to rely upon. Instinct is just what the whole of past experience has put into place.

In Peirce's Cambridge Lectures of 1898, one of the place in which the problematic gap between science and vital matters is most stark, we have this thought:

We do not say that sentiment is *never* to be influenced by reason, nor that under no circumstances would we advocate radical reforms. We only say that the

8. HOOKWAY points to a similar connection between commonsense background beliefs and vital matters: "We begin with a folk physics and a folk psychology and a commonsense view of morality...". (2000: 198, 205) It is important to see that once the Peirce scholar thinks of instinct as falling within Peirce's critical commonsensism, my central thesis follows. That is, the fact that Peirce thinks that vital matters must be driven by instinct does not make vital matters special. For Peirce takes all of our inquiries to rely on a background of undoubted belief - belief upon which we act, until experience prompts us to revise.

man who would allow his religious life to be wounded by any sudden acceptance of a philosophy of religion or who would precipitately change his code of morals, at the dictate of a philosophy of ethics, – who would, let us say, hastily practice incest, – is a man whom we should consider *unwise*. The regnant system of sexual rules is an instinctive or Sentimental induction summarizing the experience of all our race. (CP 6.633/RLT: 111)

Parker (1998:50) notes that we also find these thoughts in James' work. In "The Moral Philosopher and the Moral Life", James extends Peirce's view of truth to ethics, saying"... there can be no final truth in ethics any more than in physics, until the last man has had his experience and his say". ([1897](1979):184) He argues that society may be seen as a long-running experiment aimed at identifying the best kind of conduct. Its conventions thus deserve respect. Our background beliefs, while remaining fallible, capture the experience of generations. ([1897](1979):206) James thinks that "ethical science is just like physical science, and instead of being deducible all at once from abstract principles, must simply bide its time, and be ready to revise its conclusions from day to day." ([1867](1979):208)

Peirce often agrees. The ethical deliberator might be hesitant to revise her beliefs and this hesitation can be justified. But it is not always justified: "Like any other field, more than any other [morality] needs improvement, advance ... But morality, doctrinaire conservatist that it is, destroys its own vitality by resisting change, and positively insisting, This is eternally right: That is eternally wrong" (CP 2.198, 1902).

Peirce and James agree that moral judgements are connected to experience in the way that all of our genuine judgements are: "just as reasoning springs from experience, so the development of sentiment arises from the soul's Inward and Outward Experiences". (CP 1.648, 1898) As with every other kind of experience, "[t]hat it is abstractly and absolutely infallible we do not pretend; but that it is practically infallible for the individual – which is the only clear sense the word 'infallibility' will bear – in that he ought to obey it and not his individual reason, *that* we do maintain". (CP 1.633, 1898) We have seen that, for Peirce, this holds for any domain of inquiry: we take our body of background belief to be practically infallible, until the course of experience weighs in against it. Instinctual and commonsense beliefs are subject to revision, but held firm until experience prompts that revision. (CP 5.444, 1905) That is the Peirce I want to focus upon. Ethics and science are in the same boat, relying on deeply held, but revisable, background beliefs and habits.

Enough said about how reliance on instinct does not distinguish ethical matters from other matters. Now we need to look at the flip side of the point – the contentious view of science, in which belief is out of place. Let us look at the source of the talk that, while the scientist can wait five centuries for an answer and thus does not believe his theories, deliberator in ethics needs an immediate answer and thus believes and acts on his beliefs. One source is Peirce's 1902 application to the Carnegie Institute, pleading for funds so that he could write his grand work on logic. There are many drafts of this application in the Peirce Papers and some of these drafts show very clearly that Peirce did not have a settled view about the matter in question. Perhaps his doubts are best expressed on p 54 of some of the drafts, where we have him saying that the scientist is in a bind – a "double position":

> As a unit of the scientific world, with which he in some measure identifies himself, he can wait five centuries, if need be, before he decides upon the

> acceptability of a certain hypothesis. But as engaged in the investigation which it is his duty diligently to pursue, he must be ready the next morning to go on that hypothesis or reject it ... he ought to be in a double state of mind about the hypothesis, at once ardent in his belief that so it must be, and yet not committing himself further than to do his best to try the experiment.[9]

What a wonderful statement of the tension. The inquirer (*any* inquirer) must be ready to believe and to act on the belief, knowing full well that it might not be true. Belief is not *out of place* in science – it is just tempered by falliblism. The scientist must believe, but be constantly aware that her belief might be overturned. This is a classic statement of the subtle path on which the critical commonsense philosopher must tread.[10]

Another source of the contentious view is Peirce's Cambridge lectures of 1898 (RLT). These lectures are not the best place for discerning Peirce's considered view about science and vital matters. He was extremely irritated at James, who upon learning that Peirce intended to address technical questions of logic, asked him to "be a good boy and think a more popular plan out". Perhaps he could rather speak about "separate topics of a vitally important character".[11] Peirce pours scorn on the Harvard philosophers for their lack of training in logic and goes on and on about how he will restrict himself to "vital matters". The drafts of the lectures are more scathing that the lectures actually delivered, showing that Peirce thought he ought to try to hold his anger in check, but he does not altogether manage it. It is in this context that Peirce makes the extreme remarks about reasoning being out of place on vitally important topics.[12] Reasoning, he sneers, seems not to be necessary for worldly success.

These remarks simply cannot be taken seriously once it is seen that Peirce was wounded about being told, in such an offensive way, to excise the hard reasoning and logic from his lectures. After James had died, Peirce clearly felt bad about having had been so rude. Unwilling to give up on the point that his dear friend had an "almost unexampled incapacity for mathematical thought", he nonetheless promises to endeavour "to substitute a serious and courteous" tone for "the tone I used at Harvard". (CP 6.182, 1911)

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9. MS L75, p.53-55 of the first variant which goes to p.88.
10. See MISAK (1991:50ff) for a sustained description of this path.
11. TRAMMELL (1972) presents an excellent account of this dispute. See also HOOKWAY (2000:23f).
12. As TRAMMELL (1972) tells us, Peirce did at times innocuously oppose reason and vital concerns. First, the more emotionally committed one is to a belief, the harder it is to reason in an unbiased way about it. Second, inductive reasoning requires a kind of detachment from immediate concerns, as it depends on the notion of a long run. And sometimes he suggests that highly theoretical or technical science is such that instinct is less reliable than it is in less abstract and less technical inquiry. HOOKWAY (2000:228) says that the sharp distinction between theory and practice was confined to the 1880's. He also suggests that Peirce is exaggerating his more considered view when he says that there is no role for instinct in theoretical matters: he did allow instinct a place in inductive reasoning. My argument is that Peirce allowed a role for instinct in all kinds of reasoning. None of these thoughts, however, entail the less innocuous thought that reason is out of place in morals.

And finally, in the Cambridge Lectures, we find Peirce see-sawing in the same breath between the idea that belief has no place in science and the idea that it does. First he says:

> I would not allow to sentiment or instinct any weight whatsoever in theoretical matters, not the slightest ... True, we are driven oftentimes in science to try the suggestions of instinct; but we only *try* them, we compare them with experience, we hold ourselves ready to throw them overboard at a moment's notice from experience'. (CP 1.634/RLT:111)

This is the "no belief in science" side of the see-saw. We are not ready to act on belief in science. Science

> merely writes in the list of premisses it proposes to use. Nothing is *vital* for science; nothing can be. Its accepted propositions, therefore, are but opinions at most; and the whole list is provisional. The scientific man is not in the least wedded to his conclusions. He risks nothing upon them. He stands ready to abandon one or all as soon as experience opposes them. (CP 1.635/RLT:112)

But in the next breath, Peirce says that some of the scientist's conclusions are called "established truths" – "propositions to which no competent man today demurs". (CP 1.635/RLT:111) These established truths are the body of background belief which we take for granted. It is what the critical commonsense philosopher focusses upon. It is belief in science.

If we have to choose, on their own merits, which of Peirce's opposing views of science to accept, the choice is easy. As Duhem and Quine and Kuhn have gone so far to show us, no scientific theory is overthrown in a flash by a lone experience. Scientists tend to insulate their theories from rogue experiences until the theory can bear such insulation no more. It would be an odd scientist indeed who abandoned a well-supported theory on the basis of one contradictory experiment. Peirce just makes a mistake here – one that has irritated many a contemporary pragmatist.[13] He at times fails to see how the background theories of scientists are accepted as true until recalcitrant experience overwhelms them. But of course, at times he sees this very clearly.

If we drop Peirce's contentious thought about science, we can discern a coherent and very sensible position. In both scientific and moral matters, we have cherished beliefs which are nonetheless responsive to experience. In ethics, as in science, we act on our experience-driven background beliefs, while realising that they might yet be overthrown by further experience. Vital matters are not set against reason, experience, and inquiry.

5. A more productive tension

I have argued that Peirce's thoughts about ethics and science can be brought into harmony – that we ought to see Peirce as holding that vital matters fall under the

13. See, for instance, LEVI (1983), (1984), HOOKWAY (2000:210).

scope of truth, knowledge and what he calls the scientific method of inquiry. As in science, we hope or assume that there would be an upshot to our moral deliberations. But there is another tension in Peirce's thought about science and ethics which we would do well to leave in place. For any cognitivist position which fails to incorporate the tension is, I propose, simpleminded.

At one point Peirce distinguishes disagreement in moral matters from disagreement about taste: "However it may be about taste, in regard to morals, we can see ground for hope that debate will ultimately cause one party or both to modify their sentiments up to complete accord." (CP 2.151, 1902) That is the cognitivist thought which I have been trying to preserve for Peirce. But he then delivers the seemingly anti-cognitivist thought that "Should it turn out otherwise, what can be said except that some men have one aim and some another? It would be monstrous for either party to pronounce the moral judgments of the other to be *bad*. That would imply an appeal to some other tribunal". (CP 2.151, 1902)

At first glance, this looks like a straightforward contradiction. But Peirce here is rehearsing his rather subtle position on bivalence – a position which is especially suited to moral judgement. He thought that the principle of bivalence – that every statement is either true or false – is not a law of logic, but a regulative assumption of inquiry. If it were the case that, no matter how far we were to push our inquiries, there would be no upshot to the question at hand, then we must say that there is no truth of the matter at stake. The hope or regulative assumption of inquiry - that our inquiries would have an upshot – would here not be fulfilled. So we frequently have him saying, in an entirely general fashion

> It is true that we cannot know for certain that experience, however long and full, ever would bring all men to the same way of thinking concerning the subject of inquiry. But that is the only result that can satisfy us, so that we must forever continue in the hope that it will come, at last.[14]

We must hope, for any question into which we are inquiring, that bivalence will hold. And here is the point to which any cognitivist must be alert: we expect that bivalence will fail more often in moral inquiry than in chemistry and less often than in matters of taste.

A particularly helpful text regarding bivalence and morals is *Truth and Reality and Error*. Here Peirce considers the possibility that for some questions, no answer would be forthcoming, no matter how long the discussion were to go on and no matter how advanced our methods of inquiry were to become. Perhaps the question of whether there is free will is like that, he says.

> Then in regard to that question, there certainly is no *truth*. But whether or not there would be perhaps any reality is a question for the metaphysician ... Even if the metaphysician decides that where there is no truth there is no reality, still the distinction between the character of truth and the character of reality is plain and definable. (CP 5.565, 1901)

14. MS 1342, p.2 of variants, undated. See also MS 408, p. 147, 1893-5.

Chris Hookway has recently drawn our attention to this distinction in an especially helpful way. He argues that Peirce thought that sometimes there need not be a fact of the matter about what judgement we would reach, even if there is a fact of the matter about the underlying reality. Truth, for Peirce, may be indeterminate and the underlying reality determinate. Truth and falsity are properties of judgements, representations, thoughts, or utterances and the content of these are sometimes fuzzy. One kind of example Hookway gives of this difference between the truth of judgements and the underlying reality is semantic indeterminacy or vagueness. There may be no fact of the matter whether "He is bald" is true, although there is a fact of the matter concerning the precise number of hairs on his head.

Another example arises when we ask how best to judge whether a statement is true. When inquiring into the number of leaves on the tree in my front garden, we might wonder whether the new growth just escaping from the bud counts as a leaf, or whether the gnarled and half-dead leaves count. (Hookway 2000:57f) Yet there is nothing about the reality (the tree itself) which is problematic.

So Peirce thought we may have determinate reality without determinate truth. "Truth" applies to propositions, statements, or beliefs if they would survive all attempts at refutation – if they would never lead to disappointment. (CP 5.569, 1901) "Reality" applies to things as they are irrespective of what any mind or collection of minds takes them to be. (CP 5.565, 1901) Hookway rather brilliantly uses this distinction to partially solve for Peirce the problem of bivalence as it pertains to buried secrets (such as the number of times Churchill sneezed in 1945). He says: "If I am confident that a fact is lost, neither belief nor assertion of the associated proposition is a serious option: there is nothing that asserting it commits me to. I could only turn out to be wrong if the fact turned out not to be lost after all". (Hookway 2000:61) We apply the pragmatist maxim to the concept of truth (we see what we expect of "*p* is true"). If the resulting account of truth does not explain what the truth of verification-transcendent propositions consists in, that need not have implications for the metaphysics of the pragmatist. It may just be that the goals of the pragmatist elucidation only reach to saying what we expect of a sentence which we are prepared to assert.

After drawing the distinction between truth and reality, Peirce very clearly says that it holds not just for science, but also for ethics (CP 5.566, 1901) and for mathematics (CP 5.567, 1901). Elsewhere in 1901 he makes the point thus:

> Now the different sciences deal with different kinds of truth; mathematical truth is one thing, ethical truth is another, the actually existing state of the universe is a third; but all those different conceptions have in common something very marked and clear. We all hope that the different scientific inquiries in which we are severally engaged are going ultimately to lead to some definitely established conclusion, which conclusion we endeavour to anticipate in some measure. Agreement with that ultimate proposition that we look forward to, – agreement with that, whatever it may turn out to be, is the scientific truth. (CP 7.187, 1901)

This is a rich passage. Peirce is clearly bringing ethics under the broad umbrella of science here – it aims at getting a right answer to its questions. It aims at truth.

But there will be differences between kinds of inquiry: the mathematician, the chemist, and the inquirer into what is the morally right thing to do will not all find

themselves engaged with identical methods. Nor will they find that their aspirations have identical prospects. Nor will they all be talking about the same sort of reality. As Hookway puts it,

> We might agree that mathematical propositions, ethical propositions, propositions from the more theoretical reaches of science can all be assessed as true or false. Each, we might suppose, can be tested or 'compared with reality'. This might involve looking for a proof, considering how the ethical proposition would appeal to someone who took up a distinctive disinterested viewpoint on things, or making explanatory inferences about what best systematises our other theoretical beliefs and experimental results. (2000:97)[15]

That is, comparing hypotheses with "reality" is bound to take different forms in different inquiries.

Peirce goes on to make the point that I have been stressing: what is central in these various inquiries is the surprise of experience, against a background of stable expectations or beliefs. He says: "Thus it is that all knowledge begins by the discovery that there has been an erroneous expectation ... Each branch of science begins with a new phenomenon which violates a[n] ... expectation". (CP 7.188, 1901)

Let us look at the mathematical case, about which Peirce is exceptionally clear. In *Truth and Falsity and Error*, he says that

> [t]he pure mathematician deals exclusively with hypotheses. Whether or not there is any corresponding real thing, he does not care. His hypotheses are creatures of his own imagination; but he discovers in them relations which surprise him sometimes. A metaphysician may hold that this very forcing upon the mathematician's acceptance of propositions for which he was not prepared, proves, or even constitutes, a mode of being independent of the the mathematician's thought, and so a *reality*. But whether there is any reality or not, the truth of the pure mathematical proposition is constituted by the impossibility of ever finding a case in which it fails. (CP 5.567, 1901)

Peirce himself argued that mathematics does not answer to a *physical* reality – it is not concerned with physical objects, but with possibilities (CP 4.234, 1902, 3.527, 1896) or the forms of relations (CP 4.530, 1905). But whatever your metaphysics might be, mathematics aims at the truth in the same way other kinds of inquiry aim at the truth. A true belief is the best belief, were we to pursue our inquiries as far as they could fruitfully go and what makes for a best belief in mathematics might differ

15. I prefer this statement of Hookway's position, rather than the following: "Some truths can be understood in a 'realist' manner, as dealing with a mind-independent reality, while others deal with matters whose character bears more marks of our interests, sentiments or constructive activities". (2000:77) For this last way of putting the point makes it seem as if there are different kinds of reality, some of which are deserving of the title 'realist' and others not. Then the question must be whether those downgraded forms of reality ought to count as reality. In the same vein, notice that, despite Peirce's language, there are not different kinds of truth - each kind of inquiry aims at getting an answer that will not be overturned by subsequent experience. *That* is what truth is.

from what makes a belief best in science, or in morals. As Hookway puts it, Peirce held that the idea of truth is metaphysically neutral.

Truth and Reality and Error is thus a wonderful text for the cognitivist pragmatist. We have Peirce saying, very clearly, that a belief can be sensitive to experience even if there is no underlying physical reality. (Remember that experience, for Peirce just is that surprise.) Perhaps an underlying physical reality will result in more statements in the domain being bivalent (as in chemistry). But some kinds of inquiry, such as mathematics, will be full of bivalent statements and yet they are such that there is no underlying physicial reality.

Morality is an especially interesting domain of inquiry with respect to these questions. In yet another grand proposed book on logic, where Peirce is outlining his view in a systematic way, he says what I think any cognitivist must accept: morality is both somehow subjective and objective. Morality arises from the human predicaments and history – it "has its roots" in "human nature" (2.156, 1902) yet is such that we aim to get a right answer. Unlike taste, which seems to be mostly subjective, morals "has a subjective and an objective side". (CP 2.153, 1902) There is a continuum here: "taste, morality, rationality, form a true sequence in this order", with taste being "purely subjective, and morals half subjective, half objective".

Peirce's elucidation of this thought takes us further into the subtelties required of moral cognitivism. It often happens, he says, that a man seriously considers what his duty is in a certain case, but then draws a mistaken conclusion: it is "quite the reverse of that which he would reach if certain aspects of the case had not escaped him". Yet he is right to do what seems to him to be his duty, despite the fact that he is mistaken. It would be very odd to suggest that he *not* follow "the dictates of his conscience". He must act and he must act on what, after careful consideration, he takes to be his duty. If he "carried his self-discussion further", he might have discovered the truth about what his duty was. But he cannot but do what he thinks is right. That is one way in which morals is part subjective – it is right to do what you think right, even if you are mistaken. It is part objective in that there *is* a right answer to the question "what is my duty?", even if I do not reach it. Of course, any area of inquiry is like that – we go on the best beliefs, given the available evidence and argument, knowing that further evidence and argument might prove us mistaken.

Then Peirce calls for a correction in moral philosophy: "It is true that the majority of writers on ethics in the past have made the root of morals subjective; but that best opinion is very plainly moving in the opposite direction." (CP 2.156, 1902) It cannot move too far in the objective direction, for the only grounds we have for our moral judgements is feeling: "our aversion for and horror of" incest "is simply felt'. (2.171, 1902) Grounds for belief in logic and in science seem more robust.

Peirce thus presents here an extremely sophisticated cognitivism. We ought to expect bivalence to fail more often in morals than in physical science, but it is nonetheless such that it aims at the truth. We can see that the reality to which moral judgements fit is not physical reality, yet moral deliberation is still guided by the surprise of experience. Moral judgements fall somewhere in between the highly subjective domain of taste and the much more objective domain of the physical sciences. We have moved very far indeed from the thought that Peirce had only silly things to say about ethics.

7. The normativesciences and the force of experience

On the outline of Peirce's view which we have in hand, it would seem that experience, not religion, not some set of philosophical principles delivered to us by utilitarianism or Kantianism, is the lifeblood of moral deliberation. The pragmatist cognitivist should, by and large, stay away from a *theory* of morality and take insight from wherever it is to be found. (See Misak 2000:122f)

Many a Peirce scholar will be wondering at this junction why I have been silent about what appears to be Peirce's theory of morality – his outline of the normative sciences. So I will conclude by very briefly looking at how the focus on experience fits with this late aspect of Peirce's thought.

Peirce makes the bold claim that logic is dependent on ethics and ethics is dependent on aesthetics. The claim, once unpacked, looks less startling than it does at first. We do not have here the odd thesis that logic is based on morality and that morality is based on art.

Peirce thought that the normative sciences (aesthetics, ethics, and logic), although they have often been mistaken for practical sciences, are really theoretical. They study what ought to be, not what will be or what is. (CP 1.281, 1902, 2.156, 1902) All three pronounce some things good and some things bad. All three study forms of voluntary, self-controlled conduct, aimed at an ideal or end. They set out rules which ought to be followed if our aims are to be attained. They investigate the "laws of the relation of Phenomena to *Ends*, that is, perhaps, to Truth, Right, and Beauty". (CP 5.121, 1903)

Aesthetics asks what is possible to admire unconditionally. This is of course not how we usually think of aesthetics. The science of aesthetics, Peirce thinks, "has been handicapped by the definition of it as the theory of beauty". (CP 2.199, 1902) It is limited to matters of taste only if we include under the umbrella of taste "forming a taste in bonnets ... or ... a preference between electrocution and decapitation, or between supporting one's family by agriculture or by highway robbery". (CP 1.574, 1905) And in forming these preferences, self-control and criticism is important. One doesn't just go on one's whims – one goes on one's considered and disciplined thoughts, governed by a theory of what is most admirable.

This is how ethics is based on aesthetics. We cannot know how we should aim to behave or know what is possible to adopt as an ultimate end until we know what is most admirable. (CP 5.130, 1903) And logic is based on ethics. Logic is normative – it is thought which is under self-control. (CP 1.606, 1903) "Thinking is a kind of action, and reasoning is a kind of deliberate action; and to call an argument illogical, or a proposition false, is a special kind of moral judgment". (CP 8.191, 1904)[16] Peirce's

16. Peirce also argues that logic is based on ethics in the following way: 'logic requires, before all else, that no determinate fact, nothing which can happen to a man's self, should be of more consequence to him than anything else. He who would not sacrifice his own soul to save the whole world, is illogical in all his inferences, collectively.' (W3, 284, 1878)

claim here is that in order to make sense of the notions of truth and probability, we need to refer to an extended community of inquirers. When he says that "it is impossible for a man to be logical unless he adopts certain high moral aims", his argument is "extremely simple". It is: "All positive reasoning depends upon probability. All probability depends upon the supposition that there is a 'long run'. But a long run is an endless course of experience ..." (MS L75 p.13-14, variants, 1902) Logic doesn't require that someone be capable of the heroism of self-sacrifice; it just requires that we recognise the possibility of it. It requires that we see that our inferences are valid if they would be accepted by the hero. One has to "refer his inferences to that standard". (W3:284) See Misak (1991:108ff) for a sustained discussion.

So what does Peirce think that we can admire unconditionally? His rather unhelpful answer is "concrete reasonableness" – reason and the growth of reason. (CP 1.615, 1903) That is the *summum bonum* or the highest good to which all of our actions, intentions, and projects must answer.

Similarly, when Peirce asks how self-control manifests itself in ethics, he says exactly what one would expect of someone who holds that a true belief is one which best accounts for experience, broadly conceived. He says that we criticise our own conduct, compare that conduct to a standard, ask whether our actions accord with our intentions, ask whether we are satisfied or dissatisfied with our actions, absorb lessons, review our ideals. (CP 1.591-599, 1903) "The experience of life is continually contributing instances more or less illuminative". (CP 1.599)

We are thus quickly returned to the parallel between Peirce's view of ethics and his general epistemology:

> Just as conduct controlled by ethical reason tends toward fixing certain habits of conduct, the nature of which ... does not depend upon any accidental circumstances, and *in that sense* may be said to be *destined;* so, thought, controlled by a rational experimental logic, tends to the fixation of certain opinions, equally destined, the nature of which will be the same in the end, however the perversity of thought of whole generations may cause the postponement of the ultimate fixation. (CP 5.430, 1905)

Here again we have an excellent statement of Peirce's cognitivism. When we inquire about how we ought to control our conduct, we are "destined" to reach the truth. That is, our reaching a permanently settled belief does not depend on accident – we are destined to reach the truth in the sense that experience and argument would, we hope, lead to a belief which would not be overturned. This is a thought which appears again and again in Peirce's epistemology and theory of truth. We may go badly wrong for generations, but we hope that there is an answer to the question at hand which would fit with all the evidence and argument, were we to have so much of it that nothing further would show our belief to be mistaken. The beauty of the above passage is both in making clear the modest sense of 'destined' and also in drawing the explicit parallel between ethics and other kinds of deliberation. In ethics we aim at getting an answer which would satisfy our aims in inquiry: which would forever meet the challenges of reasons, argument, and evidence. Peirce's view of truth is indeed a friend of cognitivism, despite his assertions about vital matters.

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