THE WILL TO BELIEVE AND THE WILL TO LEARN:
JAMES, PEIRCE, AND ANTI-EVIDENTIALISM

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The present article contests the widely received view that Peirce and James are irreconcilably opposed on the issue of evidentialism. Whereas it is typically supposed that Peirce endorses an evidentialist position opposed to the anti-evidentialism of James's important essay "The Will to Believe," it is argued here that Peirce's own commitment to the spirit of the scientific enterprise involves a limited anti-evidentialist stance. Much like James, Peirce maintains that there can be no evidence to support one's initial faith that the pursuit of scientific inquiry is capable of yielding knowledge of reality, and that such a commitment to the communal activity of science rests ultimately upon certain hopes and sentiments. It is also acknowledged, however, that James admits counterexamples to evidentialism which Peirce would not endorse, insofar as Peirce's anti-evidentialism is strictly limited to those beliefs necessary to motivate the pursuit of the scientific enterprise.

I

Insofar as commentators have distinguished between Peircean and Jamesian schools of pragmatism, James's landmark 1896 essay, "The Will to Believe" is typically identified as marking a fault line between their respective pragmatist approaches. Whereas James's essay has been received as a classic statement of anti-evidentialism and a defence of the right to believe on passional grounds, Peirce continues to be regarded as a principal spokesperson for a more narrowly scientific pragmatism which could not possibly condone the kind of wishful thinking which James has been alleged to license. Such an account of Peirce's pragmatism and its relationship to James's is not without justification, and may appear especially well-supported by the argument of "The Fixation of Belief," in which Peirce criticises non-scientific methods of belief-formation for their tendency to engender doubt in their own results. Whatever else might unite James and Peirce, their respective positions concerning the intellectual respectability of passionally-grounded belief have generally been thought irreconcilable. Peirce, it might be suggested, is every bit as much of an evidentialist as the Cliffordian target of "The Will to Believe," and it was only James's devotion to his lifelong friend that could have prevented him from explicitly stating as much.

Without going so far as to repeat Gavin's bold thesis that there is a Peircean "will to believe,"[1] there is, nonetheless, reason to suspect that Peirce and James share more in common with respect to passional grounds of belief than has customarily been acknowledged. While several commentators have observed an allusion to James in Peirce's advocacy of a "will to learn," his scant remarks on the topic have generally frustrated any effort at detailed comparison. An apparent gesture towards the kind of passionate commitment more customarily associated with Jamesian than with Peircean pragmatism has therefore remained underexplored. Peirce's numerous remarks concerning the importance of scientific investigation of such attitudes and sentiments as hope and something akin to religious faith have received far greater

commentary. However, possible affinities with James have gone largely unnoticed and Peirce has not often been thought to develop his positions on such topics in sufficient detail to merit comparison against James's, or, indeed, to reward careful examination in their own right.[2] In his discussions of the affective dimension of inquiry, it might easily seem Peirce indulges in that romantic "transcendentalism" which Goudge distinguishes from the "naturalistic" tendency of Peirce's more compelling contributions to philosophy.[3]

Their largely unenthusiastic reception notwithstanding, Peirce's views concerning such affective states as hope and faith are neither merely florid rhetorical additions to his more technical discussions of scientific inquiry, nor indications of a problematic sentimentalism in tension with his otherwise scientific temperament. Indeed, it shall be argued, Peirce is like James in admitting an ineliminable role for the passions in motivating scientific inquiry. As shall also be seen, however, Peirce limits the extent of his own anti-evidentialism to what is strictly necessary in order to satisfy the necessary conditions of the possibility of scientific inquiry, whereas James allows more exceptions to the general principle of evidentialism which he criticises in "The Will to Believe."

The opening section discusses Peirce's suspicions of the nominalistic use to which James put pragmatism in "Philosophical Conceptions and Practical Results." Section Two then examines why one might claim to identify, in James's "The Will to Believe," certain nominalist elements of which Peirce would be similarly disapproving. The third section offers a closer inspection of James's controversial text, distinguishing between different kinds of counterexamples to evidentialism which he identifies in that paper. In Section Four, focus shifts to Peirce's important essay, "The Fixation of Belief," highlighting reasons why Peirce and James might be thought to occupy incompatible and irreconcilable positions with respect to evidentialism. Section Five contests such an interpretation, however, by showing Peirce to recognise certain affective states of the inquirer as necessary conditions for the possibility of inquiry, even where these indicate beliefs for which

there is insufficient evidence. Finally, in Section Six, Peirce and James are compared in terms of their respective forms of anti-evidentialism. A concluding section proposes that their positions be understood in terms of their broader realism or nominalism.

<center>II</center>

In his entry on "Pragmatic and Pragmatism" for Baldwin's 1902 *Dictionary of Philosophy and Psychology*, Peirce traces the origins of the pragmatist movement to his own 1878 paper, "How to Make Our Ideas Clear," and the methodological principle there set out for clarifying an idea in terms of its practical implications. Having thus identified its original source in his own work, Peirce proceeds to remark upon James's development of pragmatist philosophy by commenting that "[i]n 1896 William James published his *Will to Believe*, and later his *Philosophical Conceptions and Practical Results*, which pushed this method [of pragmatism] to such extremes as must tend to give us pause."[4] While it is unclear from Peirce's ambiguous phrasing whether he thinks James to have extended pragmatism beyond reasonable limits in both the 1896 paper and its 1898 successor, or only the latter of the two, several commentators have taken his suspicions to be addressed as much to the first paper as to the second.

That Peirce should have taken issue with *Philosophical Conceptions and Practical Results* is not at all surprising, since it is here that James explicitly announces his intention to revise or extend Peirce's pragmatism so as to elucidate contested concepts in terms of their implications for particular experiences, rather than general patterns thereof. Peirce had, by 1902, become especially insistent upon the scholastic realist commitments of his pragmatist maxim, and hence it could only have concerned him to see it rendered as the principle that

> the effective meaning of any philosophic proposition can always
> be brought down to some particular consequence, in our future
> practical experience, whether active or passive; the point lying

rather in the fact that the experience must be particular, than in the fact that it must be active.[5]

More troubling still for Peirce, James would later claim that "[pragmatism] agrees with nominalism [...] in always appealing to particulars."[6]

James's nominalistic variation on Peirce's principle is apparent from certain pragmatic examples from his 1898 paper. Unlike Peirce, for whom the application of the pragmatist maxim should result in a series of conditional statements elaborating the general empirical conditions under which a concept is properly deployed, James allows that pragmatism might "zero in" on specific practical implications at stake in a choice of hypotheses, without reference to any such law-like regularities. The practical disagreement which James here identifies between theism and materialism, for instance, concerns no law-like pattern of observable phenomena which might be expected from a materialistic universe instead of a product of divine intelligence, but, rather, a difference of ultimate outcome in which these prospective alternative universes would culminate, and their resulting implications for the eventual realisation of present human hopes and aspirations.

Application of the pragmatist principle to the debate between theism and materialism entails, according to James, that any real difference between the positions in question must lie in their respective implications for the future course of experience, and hence, in what he admits to be "an impossible case," there can be no disagreement between the materialist and the theist if the present instant is assumed to be the absolute last in the history of the universe, and neither hypothesis is able, therefore, either to predict or to influence subsequent events any differently from the other.[7] Hence, as James puts it, "if no future detail of experience or conduct is to be deduced from our hypothesis, the debate between materialism and theism becomes quite idle and insignificant."[8]

James maintains theism and materialism differ, however, in their respective implications for the ultimate satisfaction of human ends, and whether the "utter final wreck and tragedy" of a silent universe

from which all memory of humankind's most cherished hopes and ideals has perished completely is all that might remain after every effort at moral improvement.[9] What is ultimately at stake, for James, in the disagreement between theism and materialism, is the promise of an "eternal moral order" and all that this entails for the value of present efforts to achieve ethical goals. As such, there is no experimentally observable regularity by which either of the two hypotheses might be distinguished from the other, but only a difference in the outcomes which they project, and in how commitment to either hypothesis might inform one's willingness to act for the sake of certain ends. To employ the language of Peirce's category theory, James includes instances of Secondness—particular outcomes and isolated actions—as part of a concept or theory's "practical meaning," whereas Peirce elaborates the pragmatic significance for a given general term exclusively by way of Thirdness, or functional rules governing patterns of observable phenomena. For Peirce, then, it is in terms of general patterns of sensible experience that the practical differences with which his pragmatism is concerned make themselves known. As Hookway suggests:

> we can take it that the crucial difference between the two pragmatisms is that where James simply looks for the experiences that would result if the proposition were true or the conduct one should carry out in those circumstances, Peirce looks for patterns in experience and lawlike interrelations of action and experience: our understanding of a proposition is manifested in some (possibly quite complex and almost certainly conditional) habit of expectation.[10]

Insofar, however, as such regularities of experience must be available to experimental study, this means that Peirce's conception of a practical difference is tied to the standards of a scientific community of inquirers in a manner in which James's is not. Unlike James, whose pragmatism is significantly informed by his pluralistic drive to accommodate and respect the differing temperaments and emotional demands of individuals in all their irreducible

particularity, Peirce's "pragmaticism" takes little account of such individual differences and does not purport to tailor itself to the precise circumstances of particular agents engaged in the pursuit of specific practical interests. Rather, Peirce's pragmatism is premised on commitment to a scientific enterprise whose various participants are united in a singularity of purpose.

III

Peirce's pragmatism differs from James's then, insofar as its conception of the practical is limited to general patterns of observable phenomena, and therefore excludes much of what James intends to include within its scope. It is irrelevant to Peirce's pragmatism, for instance, that differences of individual temperament might call for different means of satisfying their respective emotional demands under otherwise similar conditions, and hence that individuals might differ in terms of which hypotheses satisfy their various personal expectations. Nor—since hypotheses are practically indistinguishable, according to Peirce, except in terms of their respective implications for general patterns of observable phenomena to be expected under specified sensible conditions—is there any pragmatic difference, in Peirce's view, between theories which make the same empirical predictions but appeal to differing sensibilities, such that what gives solace and comfort to one might provoke fear, despair, outrage, or disgust in another. Hence there is no accounting for differences of individual taste and psychology in Peirce's version of pragmatism, for which the practical meaning of a concept is to be articulated in terms of general functional processes rather than individual ends or outcomes, and it is for this reason that he expresses reservations at the broader use to which James puts his pragmatist principle in 1898.

If what Peirce objects to, however, in *Philosophical Conceptions and Practical Results*, is its inclusion of particular outcomes and actions within the scope of a concept's pragmatic significance, then it is difficult to see how he could have been any less concerned by James's position in "The Will to Believe." Although the term

"pragmatism" does not feature within James's 1896 paper—any more than in the 1878 paper by Peirce to which the original published statement of the pragmatic maxim is typically traced—the argument of "The Will to Believe" is entirely consistent with what James would two years later be calling his "pragmatist philosophy." In the 1896 paper, no less than its 1898 successor, it counts amongst the practical implications of some hypothesis that seriously to entertain it might provoke one rather than another set of feelings, which might contribute more or less effectively to the agent's overall goal of satisfying more of its various preferences than would otherwise have been the case. The practical results at stake in both of James's papers are those which are of interest to particular situated individuals, striving to address, by whatever means available, as many wants as possible.[11] James's choice of examples in both papers is intended to highlight other kinds of practical difference than a scientific community would be competent to admit, perhaps most prominent amongst which are the alleged benefits to the agent of belief in the religious hypothesis. In such cases, James maintains, belief in one hypothesis rather than another has the not inconsiderable practical result that certain—possibly very profound and characteristically human—wants, which would otherwise have remained unmet, are thereby satisfied. Since, however, neither the religious hypothesis nor its irreligious counterhypothesis is any better supported by appeal to publicly-available regularities of experience, according to James, it can only be on the basis of affective, or "passional," grounds that one might possibly decide upon either of these hypotheses, so that individuals must ultimately select whichever of the two appeals best to their own emotional disposition. When such profound interests are at stake, James maintains, and scientific inquiry is ineffectual to the matter in question, it is mere pedantry and intellectual puritanism to deny to passional considerations a legitimate role in determining an agent's beliefs.

Indeed, James is quite explicit in holding that the counter-examples to Cliffordian evidentialism which he purports to identify in "The Will to Believe" concern the exceptional circumstances of

particular individuals who ultimately have no alternative but to accept personal responsibility for the beliefs which they are willing to endorse and to acknowledge the risks of so doing. With respect to the kinds of cases which he has in mind in this 1896 essay, James maintains, "[e]ach must act as he thinks best; and if he is wrong, so much the worse for him," so that "whatever choice we make, we make at our peril."[12] In such cases as these, there are, according to James, no universal norms or standards to which one might appeal in order to assess the rationality of the alternatives with which one is confronted, nor is there any other authority or interest to which one can defer in one's decision over what to believe. As such, for James, it is not one's commitment to standards of rationality that is here at stake but the sovereign right of each individual to express one's character through one's chosen beliefs, and the concomitant responsibility that one respectfully extend the same privilege to those with whom one might happen to disagree. Hence James's essay is best understood as a plea for tolerance in the realm of belief, and as a valorisation of the heroic individual's strength of character in the face of uncertainty.[13]

To take the example for which James's essay is best known, the choice between agnosticism and religious belief is, he maintains, "a case where my own stake is important enough to give me the right to choose my own form of risk."[14] That is to say, when so much is at stake—the prospect of salvation and eternal happiness in this case—and science offers insufficient grounds upon which to decide the matter in question, one cannot be deemed irrational for basing one's choice upon the only available means remaining, by consulting one's feelings as to what risk one is personally willing to take. As much as he insists that decisions of this sort are fundamentally personal matters, one's choices about which reflect one's "passional" rather than intellectual nature, James does not deny. However, there is a real risk that one might later have cause to regret one's decision, while accepting that one can only ever choose on one's own behalf in such cases.

IV

Few texts in the history of the pragmatist tradition have attracted as much attention and controversy as James's landmark 1896 essay, "The Will to Believe." Although it was not until 1898 that James would adopt the term as a label for his own philosophical outlook—and he would then, with his characteristic generosity, credit Peirce with its first published statement—"pragmatism" was, for much of the twentieth century, largely identified with what were widely thought to be the principal claims of James's 1896 paper. As a result, much of the dismissive treatment with which "pragmatist" views were received until the last thirty or forty years may be understood in terms of positions commonly attributed to James in "The Will to Believe." Russell's early criticisms of the pragmatist conception of truth—which were to become canonical for much of twentieth century analytic philosophy—recall the uncharitable objections which James complained had frequently been levelled against his 1896 paper. To its critics, pragmatism was to become synonymous with a disregard for hard, possibly uncomfortable, facts in favour of undisciplined wishful thinking and the romanticisation of a juvenile "will to deceive," or "will to make-believe." In response to such crude dismissals, James's defenders have not failed to stress that his rejection of evidentialism is explicitly limited to cases wherein the choice between two hypotheses amounts to a "genuine option," the necessary and jointly sufficient conditions of which he specifies in terms of "liveness," "forcedness," and "momentousness."

Firstly, then, the hypotheses between which the agent has to choose must each appeal to them as plausible candidates for belief, or as potential beliefs which one could realistically imagine oneself holding. There is likely to be significant variation across different individuals as to which hypotheses satisfy this condition. Those which do, however, James terms "live." Any choice between two such hypotheses James therefore terms a "live option."

Secondly, the hypotheses in question must be mutually exclusive and jointly exhaustive of the available alternatives. Suspension of belief in such cases is therefore, to all intents and

purposes, equivalent to rejecting one hypothesis and endorsing the other. Such options James terms "forced."

Finally, the opportunity to decide between the hypotheses in question, and hence to revise any such decision, must present itself very rarely, if not once in a lifetime, and there must be some significant prospective good at stake. As such, the decision in question involves both commitment—insofar as it cannot be easily undone—and risk, insofar as one stands to gain or lose something of value. Options of this sort James terms "momentous."

Those options which satisfy all three criteria qualify for James as "genuine." Only in the case of genuine options for which there is insufficient evidence upon which to justify the choice of one hypothesis rather than the other does James permit that it is not irrational or otherwise intellectually discreditable to allow one's "passional nature" to decide the matter. This, indeed, is the principal thesis of "The Will to Believe."

The controversies surrounding James's paper are doubtless due in no small part to the fact that even after the scope of its anti-evidentialism had been thus limited to genuine options of this evidentially undecidable sort, James discusses a variety of importantly different cases, in the course of which he offers a number of distinct considerations against Cliffordian evidentialism. James maintains, for instance, that there are cases in which belief in some hypothesis increases the likelihood of its truth. Such cases typically depend upon the agent's performance of some task in which they are more likely to succeed if their actions are not impeded by doubt. It is more likely, for instance, that one shall make a good impression at a social event or, to take another of James's examples, that one might successfully leap across a mountain ravine, if one's efforts are not hampered by the anticipation of failure. In cases like these, James suggests, it is permissible to believe some hypothesis in spite of insufficient evidential grounds.

Self-fulfilling prophecies of this sort are importantly distinct, however, from other kinds of counterexamples which James offers against the evidentialist. In another set of cases, access to certain kinds of evidence for some hypothesis may not be forthcoming until

one has already lent a certain degree of credence to that very hypothesis, in what James characterises as something like a willing gesture of faith. Conjecturing, for instance, that God might make himself known, by way of religious experiences, only to those whose pre-evidential faith makes them receptive to such forms of evidence, James argues for the rationality of such willing gestures as a means towards the acquisition of greater stores of empirical data than might otherwise have been available.

Such cases are again distinct from those already discussed, wherein it is the risk of failing to secure some good of immense personal importance that licenses a degree of credence in excess of the available evidence. In cases such as these, access to the good in question is conditional upon belief in some hypothesis for which there is insufficient evidence to merit such an attitude, but, James maintains, the stakes are sufficiently high to warrant an exception to evidentialist scruples. These are presumably the kinds of cases which lend themselves most easily to uncharitable parody at the hands of James's critics, insofar as James here allows that a practical interest in attaining certain kinds of good might legitimately take priority over the concern that one have sufficient evidence for one's beliefs. What James's critics typically fail to acknowledge, however, is that it is—in cases of the second and third sort, at least— precisely a concern to believe true hypotheses, together with a willingness to risk false belief, that motivates the rejection of an evidentialist principle that would forbid gambles of this sort, even at the risk of permanently excluding access to such truths and their related advantages. Indeed, James and Peirce are far closer on this point than is widely appreciated, as shall shortly become apparent.

V

When, in the second of his 1907 *Pragmatism* lectures, James credits Peirce with the original published statement of the pragmatic maxim, he remarks that:

> In an article entitled 'How to Make Our Ideas Clear,' in the 'Popular Science Monthly' for January [1878], Mr. Peirce, after pointing out that our beliefs are really rules for action, said that, to develop a thought's meaning, we need only determine what conduct it is fitted to produce: that conduct is for us its sole significance. And the tangible fact at the root of all our thought-distinctions, however subtle, is that there is no one of them so fine as to consist in anything but a possible difference of practice.[15]

Hence, James notes, Peirce's pragmatism depends crucially upon a conception of belief as a "rule for action." As Peirce himself would remark, from Bain's notion of belief as "that upon which a man is prepared to act," pragmatism follows as "scarce more than a corollary."[16] What distinguishes two beliefs, according to Peirce, are their respective implications for how one would act under specified conditions were one to hold either belief.

It is not only belief, however, but also doubt which carries implications for action, according to Peirce. To be in a state of real—as opposed to fictitious or Cartesian—doubt, Peirce maintains, is to be without a belief and hence without a rule for how to act in situations of a certain kind. For James too, beliefs are distinguishable from one another, and from doubts, in terms of their respective implications for action, and hence he maintains that "belief and doubt are living attitudes, and involve conduct on our part. Our only way, for example, of doubting, or refusing to believe that a certain thing *is*, is to continue to act as if it were *not*."[17] Hence Peirce's pragmatism agrees with James's in recognising a practical difference between doubt and belief.

Though acknowledging "How to Make Our Ideas Clear" as the original published statement of the pragmatist maxim, however, James neglects to mention that this text is a sequel to Peirce's 1877 paper "The Fixation of Belief," and is intended to build upon the conclusions of that earlier document. It is in the 1877 paper, for instance, that Peirce first distinguishes belief and doubt according to their practical consequences, although his principal focus here is more with the methodological norms by which an agent might most effectively move from states of doubt to those of belief, ultimately

arguing for what might easily be mistaken for the very kind of scientific evidentialism which James would later oppose in "The Will to Believe."

Although it is Clifford's "The Ethics of Belief" which James identifies as the target of his 1896 essay, several commentators have noted certain affinities between James's evidentialist target and the proto-pragmatism of Peirce's monumentally influential 1877 text. As Hollinger remarks, for instance:

> Clifford's essay bears more comparison than it has received to a great American apotheosis of scientific method that appeared in the same year, Charles Peirce's "The Fixation of Belief" (1877). Peirce brought science to bear on the entirety of belief and he did so with a spirit of moral rectitude.[18]

In Hollinger's assessment, then, Peirce's 1877 essay aligns him with Clifford—and against what James would later argue in "The Will to Believe"—insofar as it admits no legitimate alternative to what Peirce calls "the scientific method" of fixing belief, or "the method of science." In spite of this important point of resemblance between Peirce and Clifford, however, and although the scientific enterprise is portrayed elsewhere in his writings as a kind of moral vocation, ethical considerations hardly feature at all in the argument of Peirce's 1877 paper. What Peirce challenges in this important document is not the morality of non-scientific methods of belief-formation, but rather their effectiveness as means of overcoming the "irritation of doubt" which provides the stimulus for any inquiry.

Assessing in turn a series of different methods of fixing belief, Peirce concludes that only the method of science is fit to produce beliefs which shall not, sooner or later, give way to doubt and therefore have to be abandoned. For Peirce, then, there is something ultimately self-defeating about non-scientific methods of belief-formation, inasmuch as the beliefs they generate cannot withstand the pressures to which they are invariably exposed during the ordinary run of experience. One might, for instance, in accordance with "the method of tenacity," simply opt for some belief and

obstinately cling to it, but, Peirce maintains, all of one's efforts shall ultimately be in vain as recalcitrant experience and exposure to opinions other than one's own irresistibly force the abandonment of all such tenuous and recklessly-adopted beliefs.

Not much better is achieved, moreover, by following "the method of authority," which commissions some group or institution to propagate an official body of opinion and punish all dissent. The practical difficulties confronting any such organisation are such, according to Peirce, that its grip over the populace shall always remain contested and rival points of view shall never be entirely suppressed. Nor, Peirce maintains, are beliefs adequately settled by "the a priori method," according to which one believes whatever is most satisfying to human reason, for one is apt to recognise that there are no clear means of resolving the disagreements which inevitably arise over which beliefs meet this standard.

Peirce doubtless underestimates the human capacity for prolonged and irrational credulity in the face of conflicting evidence and opposing views. For present purposes, however, it is sufficient to note that the anti-evidentialism for which James argues in "The Will to Believe" might seem to condone one or more of the non-scientific methods which Peirce criticises in his 1877 article. The method of tenacity, in particular, with its appeal to the sovereign individual's decisions over what they are willing to believe, invites comparison with the kind of doxastic liberty for which James has often been taken to license in his celebrated 1896 essay.

From what has been noted thus far, James and Peirce seem to be in straightforward disagreement with respect to the possible rationality of beliefs held on passional rather than evidential grounds. Peirce's argument in "The Fixation of Belief" portrays non-scientific methods of belief-formation as inherently self-undermining, whereas it is precisely James's objective, in "The Will to Believe," to identify exceptions to evidentialist constraints upon admissible belief. On closer inspection, however, Peirce's position is more nuanced than may appear from his 1877 paper. When the details of his position are taken into account, moreover, Peirce appears closer to James than at first glance.

To return for a moment to "The Fixation of Belief," however, it is a principal thesis of that essay that only the method of science offers a coherent means of moving from doubt to belief, insofar as beliefs formed according to any of the non-scientific methods are bound eventually to give way to doubts. The method of science is committed, however, to a "Realist Hypothesis" which Peirce states as follows:

> There are real things, whose characters are entirely independent of our opinions about them; those realities affect our senses according to regular laws, and, though our sensations are as different as our relations to the objects, yet, by taking advantage of the laws of perception, we can ascertain by reasoning how things really are, and any man, if he have sufficient experience and reason enough about it, will be led to the one true conclusion.[19]

How, Peirce asks, might such a hypothesis be justified? And how, in particular, might one justify the assumption that there are "real things" or "realities" which meet this description?

It might be wondered, indeed, how one might begin to argue for a claim which is implicitly assumed in the very practice of reasoning itself, as Peirce maintains is the case for the method of science, and hence for the Realist Hypothesis. To employ the method of science in arguing for one of its own presuppositions would, Peirce notes, be problematically circular, whereas he has already been seen to reject its non-scientific alternatives as inadequate methods of settling belief. If one cannot argue directly for the Realist Hypothesis, however, Peirce at least notes that the method of science is unlike its rivals in not producing doubt in its own methodology. Certainly, the method of science is likely to result in the provisional acceptance of erroneous hypotheses which one shall later have cause to reject. Crucially, however, the method of science does not give rise, Peirce maintains, to any doubts which would not be resolved by further application of the same method. Uniquely amongst the four methods which Peirce discusses, doubt is no longer a mere dead end for the method of science, but a stepping stone towards belief.

The question remains, however, as to what justifies Peirce's optimism about the future course of scientific inquiry. One might reasonably ask what Peirce has to say in reply to the so-called "sceptical meta-induction," according to which inference from past experience suggests that all inductively-formed beliefs shall turn out false sooner or later, or to the Kuhnian position which anticipates no end in principle to the series of crises and revolutions in incommensurable paradigms which constitutes the entire history of science.[20] This is a theme to which Peirce returns time and again in his numerous writings on the rationality of scientific inquiry and the conditions of its possible success. It is here, moreover, that Peirce's proximity to James becomes especially apparent, inasmuch as Peirce appeals ultimately to the will and sentiments of the inquirer— or, to employ James's terminology, their "passional nature"—to make good on the evidential deficit confronting the Realist Hypothesis.

Hence, in "The Doctrine of Chances"—the immediate sequel to "How to Make Our Ideas Clear" and the third in the series of articles which begins with "The Fixation of Belief"[21]—Peirce states that three sentiments, which he calls "interest in an indefinite community, recognition of the possibility of this interest being made supreme, and hope in the unlimited continuance of intellectual activity," are also "indispensable requirements of logic."[22] In the absence of such sentiments, Peirce maintains, agents shall lack sufficient motivation to participate in the demanding enterprise of scientific inquiry. It is a constant motif in Peirce's writings that for an inquiry to reach its natural end may often take more time and resources than any inquirer can contribute during a single lifetime, and that one must therefore be prepared, in committing oneself to any such project, to work for the sake of an objective which one may not live to see realised. The true inquirer must accept, that is, that their labours may not bear fruit until some future generation is able to make use of them, so that a generous willingness to work on behalf of interests other than one's own is therefore essential to the very possibility of the scientific enterprise.

More than this, however, Peirce repeatedly stresses that there can be no evidence to support the hypothesis that one's efforts shall *ever* bear fruit. The investigation in question might come to a premature close—owing perhaps to war or natural disaster—before future generations are able to take advantage of whatever findings one is able to make in the present, so that all of one's efforts shall have come to nothing. Not only an altruistic regard for one's fellow inquirers—both contemporary and future—is necessary to the spirit of scientific enterprise then, but a sincere and evidentially ungrounded hope that events shall turn out to favour, rather than frustrate, the course of an investigation. There is, however, nothing to justify the adoption of such sentiments, beyond their status as necessary conditions for the possibility of scientific inquiry. For Peirce then, no less than for James, it is sometimes admissible to allow sentiment to decide one's opinion on a matter of great importance when there is insufficient evidence to merit such an attitude.

<div align="center">VI</div>

In the fourth of his 1898 Cambridge Conferences lectures, Peirce describes what he calls "the first rule of logic," as holding that one ought never artificially to obstruct the course of an investigation or "block the road of inquiry."[23] According to Peirce, the road of inquiry is blocked whenever one assumes that there is nothing to learn from further investigation into a given domain, and hence that there can be no improvement upon the present state of knowledge in that field. Peirce maintains however that such an assumption will be absolutely repugnant and inadmissible to anyone of a genuinely scientific temperament, for the truly committed inquirer is animated by a "will to learn," or what he elsewhere calls "the true scientific *Eros*."[24] Peirce's talk of such a "will to learn" recalls the title of James's 1896 essay, inviting comparison between their respective positions.

For Peirce, then, the scientific enterprise is the expression of a restless and insatiable desire to learn, and rests therefore upon what

James would term the "passional nature" of the inquirer. What is first and foremost presupposed in the will to learn, according to Peirce, is a "dissatisfaction with one's present state of opinion," and hence the willingness to act so as to make up for its shortcomings.[25] The dissatisfaction which Peirce has in mind here is not, of course, any kind of sceptical unease that one's beliefs fall short of some ideal standard and ought, therefore, to be abandoned, but rather the impatience which results from an unquenchable appetite for building and improving upon those opinions which one presently holds—rejecting them when necessary, but otherwise refining and strengthening them.

To repeat one of Peirce's points from "The Doctrine of Chances," however, the willingness to inquire is conditional upon the hope that one's efforts shall not be thwarted. This presupposes in turn, moreover, that one believes that success is at the very least possible, and hence that there obtain whatever conditions are necessary for the possibility in question. Peirce, admittedly, does not explicitly state that any beliefs are necessarily implicit in this hope, but it is difficult to escape the conclusion that such doxastic commitments follow immediately from the apparent impossibility of hoping for anything that one does not believe to be possible. When, in addition, it is remembered that Peirce's pragmatism construes an agent's beliefs in terms of the general rules or habits by which their actions are informed, the willingness to inquire seems especially apt to imply various kinds of belief. If this is so, however, then Peirce is committed to the possible admissibility of beliefs grounded in such affective states as hope and desire, at least where these function as necessary conditions of the possibility of inquiry.

Like Peirce, moreover, James maintains that the possibility of the scientific enterprise rests on a kind of passionate commitment on the inquirer's part, for which no adequate evidential support can possibly be offered. Indeed, the following passage from "The Will to Believe" could easily be mistaken for any of a number of Peirce's remarks on the same topic:

> Our belief in truth itself, for instance, that there is a truth, and that our minds and it are made for each other, – what is it but a passionate affirmation of desire, in which our social system backs us up? We want to have a truth; we want to believe that our experiments and studies and discussions must put us in a continually better and better position towards it; and on this line we agree to fight out our thinking lives.[26]

For James then, as for Peirce, it is a futile exercise to try and persuade the philosophical sceptic to abandon their position by appealing to evidence. What is really at stake between the sceptic and one motivated by the scientific spirit is not any disagreement over the evidence of the situation, but rather a difference in volition and sentiment.

In his 1901 text, "On the Logic of Drawing History from Ancient Documents, Especially from Testimonies," Peirce compares the predicament of the scientific inquirer to that of a military officer who must capture an enemy position or else see his side defeated.[27] Like the officer, Peirce maintains, the inquirer has no option but to hope that there is some means of achieving their desired outcome, and that they shall find it. In both cases, moreover, the stakes are sufficiently great to warrant one in acting upon hope alone, however little evidence may support the hypothesis that the end in question is really achievable. In making such a comparison, moreover, Peirce echoes a similar analogy which James had made in "The Will to Believe," wherein one has no option but to believe that one is able to leap across a mountain ravine if one is not to remain stranded and freeze to death. There are, however, certain relevant disanalogies between the two scenarios. In the kinds of cases which occupy James's attention, no interests are at stake apart from those of the agent responsible for taking the risk. This is entirely characteristic of the appeal for tolerance which James makes in his essay, insofar as he explicitly leaves it to each individual to decide which risks they are willing to take. For Peirce, however, it is the interests of an entire community which are at stake, and not to act is as much to abandon one's fellows. For Peirce then, there is something positively repugnant and immoral about not taking the kinds of risks

which a concern for the interests of the community of inquirers ought to lead one to take. Curiously, then, while Peirce does indeed speak of science in Clifford-like moralistic tones, as Hollinger observes, his doing so forms a part of a broader anti-evidentialist position. Like James, Peirce maintains that there are cases in which it is not irrational to act on beliefs which are unsupported by sufficient evidence, but, unlike on James's position, one would indeed be at fault not to.

<div align="center">VII</div>

In closing, it may be noted that the different kinds of anti-evidentialism implied in James's position and Peirce's are not unrelated to their respectively nominalist and realist forms of pragmatism. James's nominalist pragmatism is intimately connected to a broad suspicion of universal norms and a preference for allowing individuals to assess for themselves what is appropriate to the specific circumstances in which one finds oneself. Cliffordian evidentialism is objectionable to James not only in its disregard for the role of one's passional nature in the formation of one's beliefs, but also for its presumptuous efforts to prescribe a single universal norm of rationality for all persons and situations, irrespective of broader contextual considerations regarding what might be rational under the circumstances, such as the goods at stake and the agent's personal estimation of their relative value. For James, then, the anti-evidentialist outcome does not prescribe one decision rather than another, since every agent must evaluate each case on their, and its, own terms.

Peirce's conception of rationality is more unified and prescriptive than James's without subscribing, however, to the evidentialist's comprehensive prohibition against grounding one's beliefs in anything other than the evidence which bears on some matter. While privileging a general scientific conception of rationality in a manner reminiscent of the evidentialist, Peirce also maintains that science cannot provide its own foundation, but must rest upon various other commitments and presuppositions, including

a reverence for the investigative enterprise and its community of activists. There can be no question here, however, of a Jamesian plurality of values based upon the equal and separate authority of different agents. While it accommodates the wills and sentiments of inquirers within its account of legitimate belief, it is also expected, within the Peircean community of inquiry, that its members shall agree upon their most fundamental values.

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Notes

[1] See Gavin.

[2] Hookway and Cooke are both notable exceptions.

[3] See Goudge.

[4] Peirce, *Collected Papers,* Vol. 5, 3.

[5] James, *Pragmatism*, 259.

[6] James, 32.

[7] James, 260.

[8] James, 261.

[9] James, 263.

[10] Hookway, 152.

[11] Gale interprets James in particularly strong terms on this score.

[12] James, *Will to Believe*, 63.

[13] The closing passages of James's essay make his admiration for such heroism especially clear.

[14] James, *Will to Believe*, 30–31.

[15] James, *Pragmatism*, 28–29.

[16] Peirce, *Collected Papers,* Vol. 5, 12.

[17] Peirce, *Collected Papers,* Vol. 3, 11.

[18] Hollinger, 75.

[19] Peirce, *Collected Papers,* Vol. 5, 384.

[20] Rosenthal maintains, however, that Peirce is closer to Kuhn than is typically appreciated.

[21] The six-part series in question, collectively known as the "Illustrations of the Logic of Science" series, appeared between November, 1877 and August, 1878 in *Popular Science Monthly*.

[22] Peirce, *Collected Papers,* Vol. 2, 655.

[23] Now published as *Reasoning and the Logic of Things*, James originally arranged these lectures on behalf of Peirce, who was somewhat resentful at the suggestion that this be taken as an opportunity to speak on

"more popular subjects" as opposed to the topics in formal logic which were at that time occupying his attention.

24 Peirce, *Collected Papers,* Vol. 1, 620.
25 Peirce, *Collected Papers,* Vol. 5, 583.
26 James, *Will to Believe*, 19.
27 Peirce, *Collected Papers,* Vol. 7, 219.