

Charles S. Peirce's Conservative Progressivism

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Charles S. Peirce's Conservative Progressivism

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A dissertation
submitted to the Faculty of
the department of Political Science
in partial fulfillment
of the requirements for the degree of
Doctor of Philosophy

Boston College
Morrissey College of Arts and Sciences
Graduate School

June 2016

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My dissertation explores the epistemological and political thought of Charles S. Peirce, the founder of American pragmatism. In contrast to the pragmatists who followed, Peirce defends a realist notion of truth. He seeks to provide a framework for understanding the nature of knowledge that does justice to our commonsense experience of things. Similarly in contrast to his fellow pragmatists, Peirce has a conservative practical teaching: he warns against combining theory and practice out of concern that each will corrupt the other.

The first three chapters of this dissertation examine Peirce's pragmatism and related features of his thought: his Critical Common-Sensism, Scholastic Realism, semeiotics, and a part of his metaphysical or cosmological musings. The fourth chapter explores Peirce's warning that theory and practice ought to be kept separate. The fifth chapter aims to shed light on Peirce's practical conservatism by exploring the liberal arts education he recommends for educating future statesmen.

This dissertation makes clear that Peirce was not a crude utilitarian or simply concerned with "what works." He was, moreover, not anti-metaphysical. Peirce has much to instruct contemporary thinkers. His is an anti-skeptical but modest theory of reality that remains valuable to contemporary readers. His message of caution in the practical realm is sound. Finally, his call for what a university ought to be and the liberal arts education that will best groom students for a life of action is still an important message.

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ACKNOWLEDGEMENTS

I would like to thank my adviser, Nasser Behnegar, for his support and guidance in this project and for encouraging me to explore this overlooked thinker. Susan Shell and Christopher Kelly similarly provided invaluable feedback and suggestions, for which I am also grateful. Professor Shell in particular shifted this dissertation's focus for the better.

Without the friendship and encouragement of Walter Berns, I would never have ended up pursuing an advanced degree in political theory. This dissertation and my graduate studies are in large part the result of his mentorship.

My parents, Dani and Jeff Levin, provided me with the educational background that has enriched my life and made this dissertation possible.

Finally, I would like to thank John and Yacov Hungerford for their love, support, and understanding. I could not have finished this without them.

INTRODUCTION

Charles Peirce is the founder of American pragmatism (see, e.g., James 1898/2011, p. 66), “America’s homegrown philosophy” (Misak 2008, p. 197). Peirce’s pragmatic maxim, from his 1878 essay “How to Make Our Ideas Clear,” is generally cited as the defining maxim of pragmatism:

Consider what effects, which might conceivably have practical bearings, we conceive the object of our conception to have. Then, our conception of these effects is the whole of our conception of the object. (1878, EP1 p. 132)

Some other key characteristics of Peirce’s pragmatism are that truth is an intelligible concept, a social concept, and is that to which philosophic and scientific investigation approaches; truth is established when inquiry has been exhausted. What results from this is an attitude of, in Peirce’s term, “fallibilism”: that every conclusion that survives a step of investigation must be recognized as tentative and must be thrown overboard if it doesn’t withstand future inquiry. In other words, investigators must hold that no scientific proposition is sacred. Finally, philosophic and scientific investigation must start where men actually are; no man approaches the world, or genuinely approaches investigation, with complete doubt. If philosophic investigation is going to be fruitful, it must be motivated by real doubt and not be led off-track by self-delusions of doubt.

Hilary Putnam explains that “American pragmatism (at *its* best) avoided both the illusions of metaphysics and the pitfalls of skepticism” (Putnam 1990/2011, p. 331).

Through thinkers like John Dewey pragmatism became associated with progressive politics and influenced educational theory. Through Oliver Wendell Holmes, Jr., it played

a role in transforming jurisprudential thought (see, e.g., Jacobsohn 1977). Richard Rorty changed our understanding about the theoretical foundations—or lack thereof—upon which liberal democracy rests.¹

The pragmatism of thinkers like Dewey and Rorty, and of James to a lesser extent, differ in significant ways from that of Peirce. As opposed to these thinkers, Peirce's pragmatism aims at defending scholastic realism² in the wake of the skepticism about the certainty of our knowledge injected in modern thought by Kant and Hegel. Peirce understood that knowledge needed metaphysical foundations.³ He sought to provide a framework to understand the nature of the knowledge it seems we do have and continue to uncover, and that does justice to our commonsense experience of things. Peirce moreover warns against combining theory and practice out of fear that theory will be

¹ Peirce's influence on twentieth century thought goes further: He was "one of the founders of the quantificational logic which is the staple of contemporary textbooks in the subject" (Hookway 1985, p. 1); he similarly made important contributions in such fields as mathematics, semeiotics, methods in the study of geology, and the philosophy of science (see, e.g., Fisch 1983).

² "Scholastic realism" refers to the realism of such scholastic thinkers as Duns Scotus. As Peirce explains it, this entails recognizing the reality of general concepts, and that there is more than simply sense data that the mind uses to create its own (potentially arbitrary) order of the world (see, e.g., 1868b, EP1 p. 51–53). This will be discussed further in the third chapter of this dissertation.

³ Hookway (1985) explains that Richard Rorty's characterization—meant by Rorty as an insult—of Peirce as a "traditional philosopher" is largely correct. Peirce was a "systematic philosopher concerned with the sorts of problems about science, truth and knowledge which exercised Descartes and Kant" (p. 3). One of Peirce's chief goals was to provide philosophical foundations to justify science—to explain how objective truth was possible (ibid.). To do so, he sought to transform "how the [traditional philosophical] problems arose" and then use "his new logic and claims about meaning to resolve them" (ibid.). He attempted, for example, to "undermine . . . mistaken beliefs about reality . . . which had disfigured the discussions of earlier philosophers" (ibid.).

Skagestad (1981), on the other hand, does not see the desire to refute skepticism as the motive behind Peirce's work, but understands Peirce rather to be motivated by the desire to defend science against "those who would make science subservient either to religious dogmas or to technological or political goals" (p. 200).

used simply to serve practice, and be thereby corrupted. The differences between Peirce's pragmatism and that of these others—especially his defense of a realist conception of truth in the face of extreme skepticism—has led some democratic theorists to turn to Peirce for a defense of liberal democracy that will resonate in our post-modern times.

It is because of the differences between Peirce and the other pragmatists that this dissertation aims to better understand Peirce's thought. His fallibilism—the humble recognition that any part of our knowledge might be wrong—along with his defense of a realist understanding of truth and knowledge put him in the modern philosophical tradition. Indeed, he appears to be a late and determined defender of modern philosophy—aiming to defend what is best about modern philosophy, while undermining and discarding what is worst about it. He attacks Descartes's method of beginning from complete doubt, for example, as well as the notion that universal enlightenment was a possible and worthwhile goal. There appear to be important things to learn—especially about the nature of philosophic truth and its metaphysical foundations—in Peirce's attempts to save the philosophic project of uncovering truth. In the realm of practical matters, Peirce expresses a modest conservatism that is still relevant today. What he says about practical matters raises questions and concerns that are worth working through.

The interpretation of Peirce offered here takes the general approach to understanding Peirce of Christopher Hookway (1985). Hookway looks to understand Peirce's thought as a whole and to reconcile the scientific and metaphysical aspects of Peirce's work (Hookway 1985, p. 2–3). This is in contrast to the approaches taken by Murray G. Murphey (1961), who understands there to be at least four distinct and irreconcilable philosophical systems present in Peirce's thought; and Peter Skagestad

(1981), who argues that Peirce's work ought to be understood piecemeal and not as a comprehensive whole.

The remainder of this introduction seeks to situate Peirce's thought among fellow thinkers in order to provide appropriate context for understanding his thought. We look at some of the ways Peirce was influenced by Immanuel Kant, whom he calls the "king of modern thought" (1885a/1998, CP 1.369). We briefly examine the thought of other pragmatists—William James, John Dewey, Richard Rorty, and Hilary Putnam—to understand Peircean influences on their thought, as well as where their thought and Peirce's diverge. We also look at the appeal to Peirce by democratic theorists, among them Jurgen Habermas, and evaluate their appropriation of his thought. Finally, we review some different interpretations of Peirce's epistemology, from scholars who understand Peirce to defend epistemological realism to those who see him as a post-modern thinker akin to Rorty.

I. Peirce's Kantian Influence

There were several important philosophical influences on Peirce; among those he cites in several publications are Aristotle, medieval scholastics like William of Ockham and Duns Scotus, Berkeley, and Spinoza. It was Kant, though, in whose shadow he was most clearly writing.⁴ A comparison between Peirce and Kant with regard to key features of Peirce's thought will help frame and provide context to Peirce's philosophical project.

⁴ See, e.g., Hookway (1985), p. 12. Hookway also rightly notes other important influences on Peirce's thought: Aristotle, Ockham, Scotus, Spinoza, Berkeley, Hegel, Thomas Reid. Short (2004) explains: "Peirce's philosophical studies began with Kant and centered around the Kantian problem of knowledge" (p. 215). Young (1952) remarks: "Kant was the earliest and most

Peirce calls Kant the “king of modern thought” (1885a/1998, CP 1.369). It was through Kant, Peirce explains, that he was introduced to philosophy: “I . . . had come upon the threshing-floor of philosophy through the doorway of Kant” (1907/1998 p. 400). He explains that the skepticism raised by Kant’s *Critique of Pure Reason*—“perhaps, the greatest work of the human intellect”—profoundly affected all subsequent thought (1863/1958 p. 7–8). The name “pragmatism” in fact comes from Kant’s first *Critique* (1905c/1998 p. 333). Peirce’s diagnosis of the problems of the philosophy of his day appears to be lifted directly out of the *Groundwork of the Metaphysics of Morals*—though his answer to these problems differs from that of Kant. Peirce similarly parts ways with Kant by separating theory and practice, though he does so in a way that similarly shows Kant’s influence; Peirce’s presentation of philosophy as man’s “highest occupation” (1898, CP 1.673), in fact, appears to be an inverse of Kant’s philosophy. Other features of Peirce’s thought that bespeak Kant’s influence include Peirce’s use of regulative hopes; Peirce’s concern for self-control, though with regard to thought rather than moral action⁵; his attempt to identify categories that can account for all our knowledge; and his identification of the three normative sciences—logic, ethics, and esthetics—and their relation to one another and to knowledge in general.⁶

persistent influence in [Peirce’s] development, with Schelling and Hegel running close seconds” (p. 275).

⁵ In an essay from 1905, Peirce explains that “logical self-control is a perfect mirror of ethical self-control” (1905c/1998, p. 337), and refers to the pragmatic maxim a “principle of terminological ethics” (ibid., p. 342).

⁶ These latter matters are largely beyond the scope of this dissertation, though much has been written about the connection between Kant’s and Peirce’s thought in these regards: e.g., Friedman 1995; Gava 2014; Hookway 1985; Kaag 2005; Kiryushchenko 2011; Levine 2004; Murphey 1968; Nordmann 2006; Potter 1967; and Rosenthal 2002.

Self-consciously writing in response to Kant, Peirce's philosophy can largely be seen as an inversion of that of his teacher. Kant's pure philosophy aimed to delineate the limitations of human knowledge and subordinate science to moral things; starting from Kant's diagnosis of the problems of modern philosophy, Peirce instead tries to salvage the traditional philosophical project of uncovering the cosmos. Peirce follows the traditional philosophical position that pure inquiry is superior to practical matters, and moreover that pure inquiry ought to be kept distinct from practical concerns. The relationship between Kant's and Peirce's philosophies will be fleshed out below; and Peirce's response to Kant will be on display throughout the five chapters of this dissertation. A question that lies behind much of this examination, especially chapters 4 and 5, is whether Peirce adequately responded to Kant's subordinating theory to moral matters. Understanding Peirce's relationship to the progressive appropriation of his doctrine depends, it seems, on understanding his response to Kant in this regard. This question will be revisited in the dissertation's conclusion.

With his background in chemistry and mathematics, Peirce explains that he was first pulled into philosophy—and affected thereafter—by his reading of Kant's *Critique of Pure Reason* as a teenager. He poured over the text so carefully and often that he “almost knew [it] by heart” (1907, EP2 p. 424). He also dissected its arguments with his father: “my father, who was an eminent mathematician, pointed out to me lacunae in Kant's reasoning which I should probably not otherwise have discovered” (ibid., p. 423).

Peirce explains that his doctrine of pragmatism is a product of his study of Kant⁷ combined with his experience in experimental science⁸ (1905c/1998 p. 332). The name “pragmatism” comes from Kant’s distinction between *pragmatisch* and *praktisch* (ibid., p. 333). In the *Critique of Pure Reason*, Kant explains that the purview of *praktisch* is the moral: it refers to “everything that is possible through freedom,” and it is the “practical employment of reason” that yields “us laws that are pure and determined completely *a priori*” (Kant 1781/1787: A800/B828; 2003 p. 632). Under the purview of *pragmatisch*, in contrast, are the empirical laws and the “attainment of those ends which are commanded to us by the senses” (ibid.). *Praktisch* beliefs, derived by *a priori* reason, are necessary; *pragmatisch* beliefs, derived empirically—like a doctor’s diagnosis based on his observation of symptoms—are “merely contingent” and subject to improvement (ibid., A823–824/B851–852, p. 647–648).

⁷ Peirce explains that as a “laboratory-[man],” he found kindred thought in “the [metaphysical] writings of some philosophers, especially Kant, Berkeley, and Spinoza,” to the extent that “he felt he might trust to them” to better understand “methods of thinking” (1905c/1998 p. 332).

⁸ One steeped in experimental science has “his mind molded by his life in the laboratory” (1905c/1998 p. 331). He comes to understand propositions as meaning that a certain effect will be observed if a certain effort is made:

You will find that whatever assertion you make to [the typical experimentalist], he will either understand as meaning that if a given prescription for an experiment ever can be and ever is carried out in act, an experience of a given description will result, or else he will see no sense at all in what you say. (ibid., p. 332)

The experimentalist is “color-blind” to “ontological” claims that aim to say more than this; the claim, for example, that the physicist’s “‘object is a physical reality’ unrevealed in experiments, and that the existence of such non-experiential reality ‘is the unalterable faith of science’” (ibid., p. 332). (Peirce attributes this latter view to Arthur James Balfour, as articulated in his presidential address to the British Association for the Advancement of Science, August 17, 1904 (1905c/1998 p. 332; and editor’s note 1, 1998 p. 539).)

As Peirce sees it, whereas “no mind of the experimentalist type” can make sense of the *praktisch, pragmatisch* expresses “relation to some definite human purpose” (1905c/1998 p. 333). With his laboratory experience and especially Kantian influence, Peirce

Framed the theory that a *conception*, that is, the rational purport of a word or other expression, lies exclusively in its conceivable bearing upon the conduct of life; so that, since obviously nothing that might not result from experiment can have any direct bearing upon conduct, if one can define accurately all the conceivable experimental phenomena which the affirmation or denial of a concept could imply, one will have therein a complete definition of the concept, and *there is absolutely nothing more in it*. (ibid., p. 332; emphasis in the original)

“Pragmatism” is a fitting name, as the doctrine’s “most striking feature” is “its recognition of an inseparable connection between rational cognition and rational purpose” (ibid., p. 333). Peirce explains elsewhere that he was a “pure Kantist” until he thought through matters and “was forced by successive steps” into pragmatism (1905b/1998 p. 353). In fact, Peirce understands the pragmatist to be a “Kantist” purified of hope of in any way conceiving a thing-in-itself:

The Kantist has only to abjure from the bottom of his heart the proposition that a thing-in-itself can, however indirectly, be conceived; and then correct the details of Kant’s doctrine, and he will find himself to have become a Critical Common-Sensist.⁹ (ibid., p. 353–354)

⁹ Peirce’s doctrine of Critical Common-Sensism is a consequence of his variant of pragmatism (1905b, EP2 p. 346). It will be more fully explored in chapters 3 and 4 of this dissertation.

Among other things, the discussion of Peirce's epistemology in the first three chapters will aim to shed light on Peirce's understanding of knowledge and reality, and how he thinks he was able to undermine, or get around, the desire to know a thing-it-itself.

Peirce's diagnosis of the problems of modern philosophy seems to come right out of Kant's preface to the second edition of the *Critique of Pure Reason*. As we will see, Peirce explains that the lack of consensus in modern metaphysics indicates that the study has been on the wrong path. It was indeed the lack of consensus among philosophers that earlier motivated Descartes in his philosophical project:

Philosophy . . . has been cultivated for many centuries by the most excellent minds that have ever lived and . . . nevertheless, there still is nothing in it about which there is not some dispute, and consequently nothing that is not doubtful. (Descartes 1637/1998, I.8, p. 5)

Peirce's explanation for the lack of consensus is the a priori character of Cartesian philosophy, entirely divorced from man's experience. In his characterization of the study of metaphysics and his criticism about the lack of consensus, Peirce appears to be repeating Kant. Kant defines metaphysics, for example, as completely speculative:

Metaphysics is a completely isolated speculative science of reason, which soars far above the teachings of experience, and in which reason is indeed meant to be its own pupil. (Kant 1787: Bxiv; 2003 p. 21)

Kant moreover laments that metaphysics has yet to enter upon a secure path:

Though it is older than all other science . . . it has not yet had the good fortune to enter upon the secure path of a science. For in it reason is perpetually being brought to a stand, even when the laws into which it is seeking to have, as it professes, an *a priori* insight are those that are confirmed by our most common experiences. (ibid.)

There is no consensus among its students, and no obvious winner; rather, disagreements are exercises in “mock combats” (ibid., Bxv, p. 21). The lack of consensus indicates that metaphysics has so far failed:

This shows, beyond all questioning, that the procedure of metaphysics has hitherto been a merely random groping, and, what is worst of all, a groping among mere concepts. (ibid.)

In contrast, mathematics and natural science have had a good deal of success. Kant thus suggests that metaphysics would benefit by imitating these more successful sciences’ methods; as we will see, this is precisely what Peirce also suggests.

The examples of mathematics and natural science, which by a single and sudden revolution have become what they now are, seem to me sufficiently remarkable to suggest our considering what may have been the essential features in the changed point of view by which they have so greatly benefited. . . . Their success should incline us, at least by way of experiment, to imitate their procedure, so far as the analogy which, as species of rational knowledge, they bear to metaphysics may permit. (ibid., Bxv–xvi, p. 21–22)

It is here, though, that Kant and Peirce part ways—at least on the surface. Kant suggests that, instead of assuming that our knowledge conforms with objects, we should start by assuming that objects conform to our mind; “A similar experiment [to Copernicus’s] can be tried in metaphysics, as regards the *intuition* of objects” (ibid., Bxvi–xvii, p. 22). In contrast, against Kant’s “nominalism,” Peirce has as his mission the recovery of scholastic realism.

Peirce also parts ways from Kant by separating theory and practice and ranking theoretical matters over moral ones. In doing so, however, Peirce quietly references Kantian arguments and claims, and in fact presents an inverse of the Kantian position.

Kant explains in the *Groundwork*, in an apparent attack on Lockean thought, that reason is not well fit to govern practical matters like man's welfare and preservation:

Now in a being that has reason and a will, if the proper end of nature were its *preservation*, its *welfare*, in a word its *happiness*, then nature would have hit upon a very bad arrangement in selecting the reason of the creature to carry out this purpose. For all the actions that the creature has to perform for this purpose, and the whole rule of its conduct, would be marked out for it far more accurately by instinct, and that end would have thereby been attained much more surely than it ever can be by reason. (Kant 1785: 4:395; 1996 p. 50–51).

Moreover, Kant explains, the more cultivated the reason, the worse one is at promoting one's happiness:

In fact, we find that the more a cultivated reason purposely occupies itself with the enjoyment of life and with happiness, so much the further does one get away from true satisfaction. (ibid., p. 51)

Employing reason to experiment on these matters turns out even worse:

From this there arises in many, and indeed in those who have experimented most with this use of reason . . . a certain degree of *misology*, that is, hatred of reason; for, after calculating all the advantages they draw—I do not say from the invention of all the arts of common luxury, but even from the sciences (which seem to them to be, at bottom, only a luxury of the understanding)—they find that they have in fact only brought more trouble upon themselves instead of gaining in happiness. (ibid., p. 51)

Men with cultivated reason thus “finally envy . . . the more common run of people, who are closer to the guidance of mere natural instinct and do not allow their reason much influence on their behavior” (ibid., 4:396, p. 51). Rather than satisfying “all our needs,” reason to “some extent even multiplies” them (ibid., p. 52).

Instead, Kant explains, reason is “properly destined” to a “far worthier purpose” (ibid., p. 51); it is here that Peirce and Kant diverge, although Peirce does so with a Kantian flavor. Kant explains that reason is “given to us” to “influence the *will*”—in other words, as a “practical faculty” (ibid., p. 52). Given that “nature has everywhere gone to work purposively in distributing its capacities,” reason’s “true vocation . . . must be to produce a will that is good”; this good will must be “*good in itself*” rather than “*as a means*” to some other end, and thus it must be the “highest good” (ibid., p. 52). While it might not be the “sole and complete good,” it is that to which the “cultivation of reason” aims, and the “condition of every other” good, including happiness (ibid.). That a “good will” alone is “good without limitation” we know from our experience in the world (ibid., 4:393, p. 49). The “highest practical vocation” of reason, then, is of a moral nature: to establish a good will, in other words to “[fulfill] an end which” it itself “determines” (ibid., 4:396, p. 52). “Duty” derives from “the necessity of my action from *pure* respect for the practical law,” and the worth of the good will “surpasses all else” (ibid., 4:403, p. 58). It is acting according to the law one gives oneself that constitutes the “dignity of human nature and of every rational nature” (ibid., 4:436, p. 85).

Though self-legislation might be reason’s highest vocation, there is still a need for science in Kant’s framework: namely, to protect wisdom from being “easily seduced” (ibid., 4:405, p. 59). He explains that because the “commands of duty” are often counterbalanced by man’s inclination, man has a “propensity to rationalize against those strict laws of duty and to cast doubt upon their validity” (ibid., p. 59–60). As there are limits to the abilities of pure reason to understand nature—as Kant showed in the *Critique of Pure Reason*—so there are limits to pure practical reason:

It is . . . a reproach that must be brought against human reason in general, that it cannot make comprehensible as regards its absolute necessity an unconditional practical law. . . . We do not indeed comprehend the practical unconditional necessity of the moral imperative, but we nevertheless comprehend its *incomprehensibility*; and this is all that can fairly be required of a philosophy that strives in its principles to the very boundary of human reason (ibid., 4:463, p. 108).

Thus the role for philosophy is not to seek an understanding of the whole, but to understand the limits of reason and to serve morality.

In discussing the connection between philosophy and practical matters, Peirce echoes Kant's point that it is often better for practical matters to be guided by instinct rather than reason (e.g., 1898, lecture 1, p. 110). Elsewhere Peirce similarly explains that pleasure can not be achieved if that is one's motivating aim:

All motives that are directed toward pleasure or self-satisfaction, of however high a type, will be pronounced by every experienced person to be inevitably destined to miss the satisfaction at which they aim. (1901, EP2 p. 60)

A significant difference between Peirce and Kant concerns the nature of the practical matters each thinks is best left to instinct. For Kant, instinct appears to do a far better job at pointing men in the direction of happiness when it governs their behavior. As we saw, though, reason also has a "practical vocation" for Kant: namely, to govern morality. Reason indeed dictates what morality requires. Peirce, by contrast, explains that all practical matters, including morality, ought to be under the purview of instinct; for Peirce, morality is indeed the product of instinct and culture.

In contrast, the proper role for reason, Peirce insists, is pure theoretical study. It is this—and not the good will—which is desirable in itself. The only thing "which is quite

satisfactory in itself without any ulterior reason for desiring it, is the reasonable itself” (1901, EP2 p. 60). This is an “experiential truth,” to which all true scientists can attest (ibid.). Once one understands the greatness of the task of reason of uncovering the “Eternal” and becomes “inflated with that idea,” matters of “*vital importance*” will seem of “a very low kind of importance, indeed” (1898, lecture 1, p. 121; emphasis in original). And, as such, it is the pursuit of pure knowledge that makes up the “dignity of man” (1878, EP2 p. 141).

Peirce thus turns Kant’s claim about our awareness of our moral sense on its head, and instead tries to, once more, subordinate practical matters to the theoretical pursuit of pure knowledge. This he does by setting about to reframe our understanding of the nature of pure inquiry and the subject matter of pure philosophy. This dissertation’s goal is to shed light on and critically examine Peirce’s project.

II. Other Pragmatists

This section provides a brief overview of the views on epistemology and political theory of four prominent pragmatists: William James, John Dewey, Richard Rorty, and Hilary Putnam. What is widely understood to be the meaning of pragmatism comes from the thoughts of these thinkers more than it does from Peirce’s thought. All four thinkers do away with efforts to provide foundations for knowledge. James, Dewey, and Rorty understand the nature of man, society, and knowledge to be products of history and evolution. As such, they each display varying degrees of epistemological relativism. Dewey, Rorty, and Putnam are strong supporters of democracy, with Rorty and Putnam each claiming to put forth a formulation of a Deweyan understanding of democracy. The

following presentation of each of their views will seek to bring out the ways in which each thinker both converges and diverges from Peirce's thought.¹⁰

William James's pragmatism mixes a psychological account of understanding truth and reality, with a humanistic concern for the welfare of society. It was James who introduced the term "pragmatism" in public for the first time, in a paper delivered in 1898 to the University of California (Berkeley) Philosophical Union entitled "Philosophical Conceptions and Practical Results." In this paper, he credits Peirce—"one of the most original" of his contemporaries—with having set him upon the direction of the pragmatic "trail of truth" (James 1898/2011, p. 66).¹¹ He explains in the talk that Peirce's 1878

¹⁰ Smith (1978) agrees that there are significant differences in Peirce's, James's, and Dewey's understanding of truth and knowledge (p. 51). Putnam (1990/2011) explains that Peirce "repudiated" much that is associated with James's and Dewey's pragmatism (p. 336). Hookway (1985) explains Peirce was much "much closer to the ambitions of traditional philosophy" than were pragmatists like James (p. 9). It was because of Peirce's continued attachment to the "traditional problems and aspirations of philosophy," in contrast to James and Dewey, that Rorty does not understand Peirce as a pragmatist (p. 2–3). Haack (1993, 1998) argues that Rorty's pragmatism is a vulgar corruption of Peirce's. Misak (2000) and Talisse (2005) both explain that it is because of the differences between Rorty's and Peirce's understanding of truth that they turn to Peirce for guidance. Pihlstrom (2004) explains that Rorty and Putnam have been influenced more by James and Dewey than by Peirce, though Putnam is more appreciative of Peirce's role as a founder of pragmatism than is Rorty (p. 47–48).

Others try to diminish the differences between Peirce and James and Dewey. Pihlstrom (2004) acknowledges that there are differences between Peirce's, James's, and Dewey's theories of truth, but argues that despite apparent differences, Peirce's and James's are ultimately closer than they might appear (p. 29–31); Dewey's theory, on the other hand, differs greatly from Peirce's (p. 43). Pihlstrom readily admits that Peirce diverges greatly from James and Dewey on practical matters by calling for the separation of theory and practice, though to many interested in pragmatism today, this makes what Peirce says on these matters irrelevant (p. 49). Haack (1976) argues that Peirce's, James's, and Dewey's theories of truth are more similar than at first appear, such that it is intelligible to say that there is one pragmatist theory of truth. C. Anderson (1990) emphasizes more continuity than differences among the classical pragmatists.

¹¹ James and Peirce had a life-long friendship, dating to their youths in Cambridge, Massachusetts. It is well known that James and Peirce—along with others like Henry James and Oliver Wendell Holmes, Jr.—participated together in the Metaphysical Club in Cambridge in the 1870s (Brent 1993, p. 83). James was a strong supporter of Peirce throughout his life, arranging for him to deliver several sets of lectures in Cambridge and at Harvard, helping him secure

essay “How to Make Our Ideas Clear” introduces and lays out the principles of pragmatism, namely, that the purpose of thought is the attainment of beliefs, which are rules for action (ibid.). Thus the meaning of a thought is simply its practical consequences—what conduct it will elicit (ibid.).

James explains that he thinks the principle of pragmatism “should be expressed more broadly than Mr. Peirce expresses it” (ibid., p. 67). One implication of pragmatism, in James’s view, is that every metaphysical question must involve a practical consideration for it to be a legitimate question (ibid., p. 69). James understands a consequence of pragmatism to be recognizing that “no difference” exists between two propositions if

By supposing the truth of the one, you can foresee no conceivable practical consequence to anybody at any time or place, which is different from what you would foresee if you supposed the truth of the other. (ibid., p. 67)

The only difference between such propositions is a “specious and verbal difference, unworthy of further contention” (ibid.). The principle of pragmatism thus promises to help clear up many age-old philosophical disagreements (ibid., p. 76).

In “The Will to Believe,”¹² James elaborates on the nature of belief, providing the psychological account that lies at the root of his philosophy. He explains that we are

publishers, and appealing to several universities around the country for academic positions for Peirce after he was fired from Johns Hopkins (an action largely attributed to the impropriety of his second marriage) (ibid., p. 150–152, chapters 4–5).

¹² “The Will to Believe” was first delivered as an address to the Philosophical Clubs of Yale and Brown Universities and published in a larger volume in 1896. It was then republished later as a book (Wilshire 1971, p. 309). James dedicated the book to Peirce, his “Old friend . . . to whose philosophic comradeship in old times and to whose writings in recent years I owe more incitement and help than I can express or repay” (James as quoted in Brent 1993, p. 259).

constrained in what we can believe—we can not simply believe something at will (James 1896/1971, p. 309–311). He disagrees, for example, that one can simply reason oneself into religious faith by the reasoning of Pascal’s wager (*ibid.*, p. 311). Whether we are open to belief or not is constrained by the cultural context in which we exist, as well as our passions and prejudices—this is true of both religious beliefs, as well as our views on science (*ibid.*, p. 309, 312–315). In other words, our scientific views are not merely the products of reason (*ibid.*, p. 313).

There is thus good reason to “give up the doctrine of objective certitude” with regard to one’s beliefs (*ibid.*, p. 317). This does not mean, though, that we should “give up the quest or hope of truth itself” (*ibid.*): “we still pin our faith on its existence, and still believe that we gain an ever better position towards it by systematically continuing to roll up experiences and think” (*ibid.*). Truth can be understood as that which “the total drift of thinking continues to confirm” (*ibid.*).

Truth about nature is not formed but found:

In our dealings with objective nature we obviously are recorders, not makers, of the truth; . . . Throughout the breadth of physical nature facts are what they are quite independently of us. (*ibid.*, p. 319)

In such matters, it is best to withhold judgment, given the possibility of mistake and the fact that only very rarely does a decision one way or the other need to be made:

Seldom is there any such hurry about them that the risks of being duped by believing a premature theory need be faced. The questions here are always trivial options, the hypotheses are hardly living (at any rate not living for us spectators), the choice between believing truth or falsehood is seldom forced. (*ibid.*)

Thus such matters are viewed with a healthy amount of skepticism (ibid.). That said, science often benefits from individual scientists' passionate attachment to their theories, though "the most useful investigator" will balance his eagerness "by an equally keen nervousness lest he become deceived" (ibid., p. 320).

When faced with a moral dilemma, however, there is no room for suspending judgment; a decision must be made (ibid., p. 321). Reason, moreover, can not convince a person one way or the other in such matters (ibid.). Rather, it is our heart that should guide us in such things:

Science can tell us what exists; but to compare the *worths*, both of what exists and of what does not exist, we must consult not science, but what Pascal calls our heart. (ibid.)

Morality indeed depends on everyone doing his part, with a trust that everyone else will similarly be doing his (ibid., p. 322).

In his 1907 book *Pragmatism* and in his 1909 book *The Meaning of Truth*, James connects his psychological doctrine of the nature of truth and belief with humanistic concerns that bespeak an understanding of man's evolutionary nature (James 1909/1971, p. 262). In these later writings on pragmatism, James also goes further in the direction of relativism—of presenting truth about nature as being constructed and resting ultimately on usefulness. James explains that truth is not an end in itself, but like "wealth and health" (James 1907/2011, p. 89) is desired because it is useful for "other vital satisfaction" (ibid., 80). For example, if one is lost in the woods and starving, it matters whether one correctly deduces a cow path that will lead to human habitation (ibid.).

The practical value of true ideas is thus primarily derived from the practical importance of their objects to us. . . . You can say of it then either that “it is useful because it is true” or that “it is true because it is useful.” Both these phrases mean exactly the same thing, namely, that here is an idea that gets fulfilled and can be verified. (ibid., p. 81)

True beliefs are “the opposite of whatever is instable, of whatever is practically disappointing, of whatever is useless, of whatever is lying and unreliable,” and thus save us from such a world (James 1909/1971, p. 270). “Truth” and “usefulness” thus seem to point to the same thing: stable beliefs. An idea is useful if it fits well with our experiences and our other ideas; because it is useful, it is understood as being true. It is with this desire to be useful that pragmatism looks to the future (James 1907/2011, p. 87).

James explains that the “concrete benefits” of true beliefs oblige us to pursue them (James 1907/2011, p. 89). While he is not perfectly clear as to exactly what he means by “benefit,” he leaves many clues as to the types of ends highest on his list. Foreseeing future experience and aiding man’s social existence—especially through communication—seem to be among James’s chief concerns (James 1909/1971, p. 265). James also remarks that we call “true” those beliefs that “facilitate our mental or physical activities,” thereby bringing “us outer power and inner peace” (ibid., p. 266). In an earlier talk, James similarly praises that which provides “energy and endurance” for “handling life’s evils,” as such qualities allow one to “outwear” others and thus succeed in the “battle-field of human history” (James 1891/1971, p. 307–308). Thus to varying degrees it appears James’s primary concern is with men’s evolutionary fitness and chances for historical success. He would like to see men develop in the direction of powerful and

satisfied creatures with the inner strength to endure life's obstacles, and it is to this end that "benefit" ought to be understood.

James continues to acknowledge that we are constrained by our experiences: "Woe to him whose beliefs play fast and loose with the order which realities follow in his experience: They will lead him nowhere or else make false connections" (James 1907/2011, p. 81). Similarly, the "very structure of our thinking"—which it seems is made up of the mutually reinforcing abstract relations our minds have constructed based on our experiences in the world—provide the "ideal framework" with which we make sense of our experience (ibid., p. 83). This framework acts as a constraint on us:

We can no more play fast and loose with these abstract relations than we can do so with our sense-experiences. They coerce us; we must treat them consistently, whether or not we like the results. (ibid.)

Experience will continually check our ideas and theories for understanding the world, as it "has ways of *boiling over*, and making us correct our present formulas" (ibid., p. 87).

If we are to be consistent and satisfied, our minds must adhere to the "coercions of the sensible order and those of the ideal order" (ibid., p. 83). James sees a psychological need for consistency among our "judgments, objects, and habits of reacting" (James 1909/1971, p. 278). It is this need that accounts for our developing "mental *habits*" as a by-product of past experience, that helps us prepare for future experience (ibid.). We are similarly driven by our experiences and our context to develop particular understandings as we go about our lives; "there is a push, an urgency, within our very experience . . . which drives us in a direction that is the destiny of our belief" (ibid., p. 267). The notion of "truth" develops for us in this manner (ibid., p. 268). It is the external and necessary

character of this process that makes reality “independent” of us, beyond “our arbitrary control” (ibid., p. 267).

Despite this, however, James also at times speaks in the vein of truth being constructed. He explains, for example, that truth is not inherent to an idea, it “*happens* to an idea. It *becomes* true, is *made* true by events”—events like the “valid-*ation*” process of the scientist (James 1907/2011, p. 80; emphasis in original). “Reality is an accumulation of our own intellectual inventions” (James 1909/1971, p. 266). We inherit many ideas, and continue to believe in them because “it *works* to do so” (James 1907/2011, p. 82). This is true of our knowledge of the existence of Japan (ibid.), as it is of the fact that “Moses wrote the Pentateuch,” for if Moses did not, “all our religious habits will have to be undone” (James 1909/1971, p. 274). Scientific formulas are “man-made,” and such things as “atoms” and “energy” do not “stand for anything ‘objective’” (James 1907/2011, p. 84). That scientific theories have proliferated in the latter half of the nineteenth century belies the previously held notion that these theories were uncovering what was “literally objective” (James 1909/1971, p. 263). Theories should simply be accepted to the extent that they are useful, but no further (ibid., p. 263–264).

James’s criteria for truth, it seems, is that an idea or a theory fit well with past theories and experience, as well as help prepare us for future experience (James 1907/2011, p. 83–84).

Our theory must mediate between all previous truths and certain new experiences. It must derange common sense and previous belief as little as possible, and it must lead to some sensible terminus or other that can be verified exactly. (ibid., p. 84–85)

Most people are satisfied so long as there is no “violent clash between their usual thoughts and statements and the limited sphere of sense-perceptions in which their lives are cast” (James 1909/1971, p. 279).

What is true is what is useful to these ends. These ends, in turn, greatly aid men’s experience in the world, most especially their social existence:

True ideas lead us into useful verbal and conceptual quarters as well as directly up to useful sensible termini. They lead to consistency, stability and flowing human intercourse. They lead away from eccentricity and isolation, from foiled and barren thinking. (James 1907/2011, p. 84)

Thus it is truth in understanding that we ought to pursue: “‘the true,’ to put it very briefly, is only the expedient in the way of our thinking, just as ‘the right’ is only the expedient in the way of our behaving” (ibid., p. 86). What will not be altered or undermined by future experience is that which is ultimately considered to be “the ‘absolutely’ true” (ibid., p. 87).

There is the problem, of course, that no one can be certain whether one’s truth is indeed absolute. Moreover, the absolute truth about a given matter may remain illusive (ibid.). As such, we need to live today by truths that are expedient, and that we are willing to discard tomorrow as false (ibid.). Examples of previously held truths that have since been discarded in the development of human experience include “Ptolemaic astronomy, Euclidean space, Aristotelian logic, [and] scholastic metaphysics”; these theories are now only “relatively true,” but “‘absolutely’” false (ibid.).

The relative truths, or half-truths, that men make along the way contribute to the absolute truth that is ultimately made (ibid.). This path is fueled by a reciprocal

relationship between our experiences and our attempts to make sense of our experiences, in a process wherein there seems there is much that is accidental, with our experiences leading us to adopt certain truths, which then cause us to act in certain ways, which then lead to the creation of new truths (ibid.).

So the whole coil and ball of truth, as it rolls up, is the product of a double influence. Truths emerge from facts; but they dip forward into facts again and add to them; which facts again create or reveal new truth (the word is indifferent) and so on *ad infinitum*. (ibid.)

We assimilate, reject, and rearrange our “mass of beliefs”—our half-truths of today—in order to reconcile our understanding with the “new material” experience “continually” forces us to “digest” (James 1909/1971, p. 264).

This process of codetermination between our experience of sense data and our making sense of our experience is responsible for our evolution to modern men (James 1907/2011, p. 88). Ideas like those of “one Time and one Space,” as well as “the concept of permanently existing things,” were “conquests” made by our historic ancestors in their attempts to make sense of and communicate about the disorder around them, “to get the chaos of their crude individual experiences in to a more shareable and manageable shape” (James 1909/1971, p. 264–265). Such notions have proven such helpful devices that they have developed into the structure of our mind (ibid., p. 265). These notions were not necessary—“some primeval genius might have struck into a different hypothesis” (ibid.). They are, however, by now so deeply entrenched in our minds that they frame all of our current experiences, and “no experience can upset them” (ibid.). These ideas now “work,” no matter the empiricist criticisms by the likes of Berkeley; “the category of

transperceptual reality is now one of the foundations of our life” (ibid.). For a thought to be considered reasonable or true, it must be in agreement with such notions (ibid.).

Among those things useful to believe is the existence of the God. The notion of God enlivens our experience in the world, while the absence of this notion is deadening:

Many of us, most of us, I think, now feel as if a terrible coldness and deadness would come over the world were we forced to believe that no informing spirit or purpose had to do with it, but it merely accidentally had come. . . . With the God, on the other hand, [the experienced details of fact] would grow solid, warm, and altogether full of real significance. (James 1907/2011, p. 68)

While the notion of God might not have the clarity of mathematical notions, it is practically superior to such notions because “it guarantees an ideal order that shall be permanently preserved” (ibid., p. 71). Where God is believed, “tragedy is only provisional and partial” (ibid.). One of our “deepest needs” is that for “an eternal moral order” (ibid.). The pragmatic meaning of God, James argues, does not concern “abstractions about matter’s inner essence” or scholastic arguments concerning metaphysical attributes of God, but rather the “adjustments of our concrete attitudes of hope and expectation” that result from our belief (ibid., p. 72). Theism affirms “an eternal moral order” and provides hope (ibid.). Following the pragmatic principle of understanding a concept by its consequences, the “word ‘God’” thus simply means the “passive and active [spiritual] experiences” of one’s life (ibid., p. 74).

As we shall see below, there is more affinity between James’s and Peirce’s thought than there is between Peirce’s thought and that of either Dewey or Rorty. Peirce’s writings on early pragmatism were, like James, also concerned with psychological elements of thought, though Peirce moved away from a psychological basis for truth and

knowledge in his later writings on pragmatism; we will explore these matters in chapters 2 and 3. Like Peirce, James similarly expressed an understanding of fallibilism and of truth being a forward-looking concept, confirmed over time—though he was more eager to speak of taking up and then discarding truths than he was speaking of an attitude of philosophic modesty. It is in James’s relativism as well as connection of truth with utility wherein he diverges from Peirce most greatly. In contrast to James’s increasing relativism, Peirce was interested in preserving an objective view of truth and reality; this, as I will argue in the first three chapters, is what motivated his doctrine of pragmatism. As we will see in chapter 4, Peirce thinks that the role of philosophy is to promote understanding simply, and is concerned that an interest in utility will corrupt philosophy’s pursuit. At the same time, as we will further explore in chapter 4, both Peirce and James defend the commonplace moral experience, while at the same time acknowledging that growth is inevitable in such a realm.

For Dewey, pragmatism entails turning away from epistemological concerns and instead focusing on the practical problems facing mankind (1946/1958 p. 11). He laments that the moral concerns of practical life—the search “for the ends and values that give direction to our collective human activities”—have been neglected by modern philosophy (ibid., p. 7, 11). This neglect “explains the popular discredit into which philosophy has progressively fallen” (ibid., p. 7). In contrast, Dewey explains, pragmatism does not seek to ground all knowledge or uncover eternal truths but instead to search for wisdom—a search aided by the scientific method: it is the “use of the methods and conclusions of our best knowledge, that called scientific,” that best aids our search, not the “grasp of eternal and universal Reality” (ibid., p. 11).

The new task of philosophy is to “help get rid of intellectual habits that now stand in the way” of reconciling the theoretical and the practical (1944b/1958 p. 159). Calls to separate philosophy from practical life and the social realm are simply “the philosophy of dogmatic rigidity and uniformity” (ibid., p. 158). The role for “New World” American philosophy is to work against such calls.

The chief opportunity and chief responsibility of those who call themselves philosophers are to make clear the intrinsic kinship of democracy with the methods of directing change that have revolutionized science. (ibid.)

Science ought to be directed to serving the higher goal of democracy: “science and technology may be rendered servants of the democratic hope and faith” (1944a/1958 p. 33). This is what Dewey means when he explains that philosophy has the task to “humanize science” (ibid.).

Dewey is interested in gaining knowledge so as to be able to control and manipulate. Dewey speaks of sparking a revolution in our understanding of social matters parallel to what occurred “three hundred years ago” in the “physical subjects” (1946/1958 p. 17). What is needed, he explains, is a

systematic and comprehensive criticism of current methods and habits and the same projection of generous hypotheses as . . . set going the revolution in physical knowledge. (ibid.)

Such is required if democracy is to be maintained:

Successful maintenance of democracy demands the utmost in use of the best available methods to procure a social knowledge that is reasonably commensurate with our physical knowledge, and the invention and use of forms of social engineering reasonably commensurate with our technological abilities in physical affairs. (1944a/1958 p. 33)

Dewey similarly speaks of “the prestige of science” deriving from “the use and enjoyment of the material power and material comforts that have resulted from its technical application” (1936/1958 p. 174). It seems Dewey appreciates science because of its power to manipulate; and that in the realm of the political its best use is to reshape, and thereby control, the social.

Dewey lauds democracy because its cause is the “moral cause of the dignity and the worth of the individual” (1938/1958 p. 44). It provides for “mutual respect, mutual toleration” (ibid., p. 44–45). It is “the only method by which human beings can succeed in carrying on” the “greatest experiment of humanity”: of living together profitably such that each is able to build up his own individuality as well as help the development of that of others (ibid., p. 45). Democracy is, in other words, instrumental; it is a tool, a method. It applies the scientific method to the practical and social realm; democracy is the political institution whose methods most resemble those of scientific inquiry. The exchange of viewpoints that takes place in a democratic system acts as a dialectic that parallels the empirical experimentation and testing of science:

The very heart of political democracy is adjudication of social differences by discussion and exchange of views. This method provides a rough approximation to the method of effecting change by means of experimental inquiry and test: the scientific method. (1944b/1958 p. 157)

Democracy, Dewey explains, entails empirically testing hypotheses in order to affect social change:

The very foundation of the democratic procedure is dependence upon experimental production of social change; an experimentation directed by working principles that are tested and developed in the very process of being tried out in action. (ibid.)

This is true not only with regard to determining the efficiency of an economic system—whether a free market or socialist system is more desirable—but from such an examination, deriving the moral desirability of such systems (ibid., p. 158–159).

A related virtue of democracy is that, like the good scientific method that it is, it enables the collection of information. In an arguable misreading¹³ of Abraham Lincoln’s political thought, Dewey quotes the president in support of his argument that democracy best allows each citizen to voice his needs:

Lincoln . . . said that no man was good enough or wise enough to govern others without their consent; that is, without some expression on their part of their own needs, their own desires and their own conception of how social affairs should go on and social problems be handled. . . . That asking other people what they would like, what they need, what their ideas are, is an essential part of the democratic idea. (1938/1958 p. 35)

Consulting the individual as to what it is that he needs is in fact the essence of democracy:

Because it is the individual that knows his own troubles, even if he is not literate or sophisticated in other respects, the idea of democracy as opposed to any conception of aristocracy is that every individual must be consulted in such a way, actively not passively, that he himself becomes a part of the process of authority, or the *process of social control*. (1938/1958 p. 35; emphasis added)

As we see, democracy, like science, is a tool for “social engineering” and “control.” The “realization of democracy” is the “putting together all of these individual expressions of ideas and wants” in order to ultimately arrive at the desired “social control”; to form, in

¹³ Dewey reads into Lincoln’s remarks support for populism, whereas all Lincoln was saying was that a leader needs the consent of those whom he governs.

the aggregate, the “final social will” (ibid., p. 36). “Knowledge and understanding” are simply “the power of action” (ibid., p. 37). Democracy ultimately serves the “dignity and the worth of the individual” (ibid., p. 44), it seems, because it yields the best solution to a given situation, and this it does because its decision making process consists of weighing all its citizens’ wants and needs. Whether solutions to problems are measured by anything other than their having taken into account the various desires of a polity’s citizens—by its continuation of the democratic experiment, in other words—is unclear.

There are elements of Dewey’s thought that come straight out of Peirce.¹⁴ Dewey explains that he follows Peirce’s presentation of truth as a forward-looking concept, toward which scientific investigation points:

Over against the traditional view of truth as a fixed structure of eternal and unchanging principles already in our possession to which everything else should be made to conform, Peirce said that truth “is that concordance of an abstract statement with the ideal limit toward which endless investigation would tend to bring scientific belief.” (1944b/1958 p. 157)

Like Peirce, Dewey explains that knowledge of matters—truth—is a humanly attainable and social concept:

The initial step is to promote general recognition that knowing, including most emphatically scientific knowledge, is not outside social activity, but is itself a form of social behavior. . . . For it is something that human beings do, as they plow the earth and sail ships. (1946/1958 p. 17)

Dewey moreover expresses the sentiment of Peirce’s fallibilism:

¹⁴ Dewey was a student of Peirce’s at Johns Hopkins and participated in the university’s Metaphysical Club with him, circa 1882–1884 (Fisch and Cope 1952, p. 306).

Peirce said . . . this concordance may be possessed even now and here by a scientific belief in case there is “confession of its inaccuracy and one-sidedness,” since this “confession is an essential ingredient of truth.” (1944b/1958 p. 157)

As we will explore in chapter 5, Dewey similarly voices Peircean advice about what a proper education entails:

There has to be joined to aspiration and effort the free, wide-ranging, *trained attitudes of observation* and understanding such as incorporate within themselves, as a matter so *habitual* as to be *unconscious*, the vital principles of scientific method. (1944a/1958 p. 33; emphasis added)

Despite these apparent agreements with Peirce, Dewey nonetheless applies his concepts in the opposite manner Peirce expressly intended them.

Peirce warned against combining theory and practice out of concern that each would corrupt the other—that theory would corrupt practice and practice would corrupt theory—as we will explore in chapter 4; this position is of course in complete opposition with the thrust of Dewey’s philosophical project. Dewey’s philosophical project, which consciously subordinates philosophy and science to the needs of the democratic project, indeed bears out Peirce’s warning. Whereas Dewey was concerned with employing science to aid society, Peirce was interested in pursuing knowledge for the sake of understanding simply. For Peirce, as we will see in the first three chapters, pragmatism is a logical maxim that aims to clarify conceptual meaning; for Dewey, it is a tool aimed at action. While for Dewey pragmatism as a tool comports well with a democratic political order—indeed, prescribes such an order—Peirce’s pragmatism contains within it a clear anti-democratic understanding about the nature of truth, as I will make clear in chapter 2.

In chapter 5, we will explore the ways in which Dewey's and Peirce's theoretical differences translate into practical differences with regard to their views of the education fit for a modern society.

Richard Rorty claims to be following Dewey—as well as late Heidegger and Wittgenstein¹⁵—in setting aside the philosophic project of attempting to justify claims to knowledge, and instead using philosophy to help man cope with his situation (Rorty 1979/2009, p. 7).

Each of the three, in his later work, broke free of the Kantian conception of philosophy as foundational, and spent his time warning us against those very temptations to which he himself had once succumbed. Thus their later work is therapeutic rather than constructive, edifying rather than systematic, designed to make the reader question his own motives for philosophizing rather than to supply him with a new philosophical program. (ibid., p. 5–6)

The revolution in philosophy ushered in by these three thinkers did not seek to disprove foundational philosophy, but rather introduced “new maps of the terrain . . . which simply do not include those features which previously seemed to dominate” philosophical inquiry (ibid., p. 6–7). Rorty further explains his sympathy for James's notion of truth being what is helpful to believe, rather than an ““accurate representation of reality”” (ibid., p. 10).

In rejecting foundational philosophy and the goal of accurate representation, Rorty adopts instead a historicist approach to claims of knowledge. In place of

¹⁵ Rorty calls Wittgenstein, Heidegger, and Dewey the “three most important philosophers of our century” (Rorty 1979/2009, p. 5).

““metaphysical comfort,”” Rorty clings to his fellow men and the world these men created:

To accept the contingency of starting-points is to accept our inheritance from, and our conversation with, our fellow-humans as our only source of guidance. . . . Our identification with our community—our society, our political tradition, our intellectual heritage—is heightened when we see this community as *ours* rather than *nature’s*, *shaped* rather than *found*, one among many which men have made. (Rorty 1979/1982, p. 166; emphasis in original)

Our attachment to our fellow men is more important than is getting things right: “In the end, the pragmatists tell us, what matters is our loyalty to other human beings clinging together against the dark, not our hope of getting things right” (ibid.). Rorty understands himself to be adhering to the pragmatism of Dewey and James in understanding the only “constraints on inquiry” to be “conversational ones” (ibid, p. 165). Indeed, it is conversation, and conversation alone, that supports “our culture, or purpose, or intuitions” (ibid., p. 167). What this of course means is that the only constraints that exist are community- and culture-dependent. Nonetheless, Rorty denies that he is a relativist, explaining that the charge is simply made by those who can not understand that philosophy can eschew attempts at grounding knowledge (ibid.).

In explaining his philosophical and pragmatist influences, Rorty largely ignores Peirce and when he does mention him, it is with disdain. For example, Rorty names the first part of *Philosophy and the Mirror of Nature*, in which he talks about the invention of mind, “Our Glassy Essence.” Peirce famously used the image of a “glassy essence,” from Shakespeare’s *Measure for Measure*, in his discussion of man’s identity as a sign that exists in a social and language-filled context (Peirce 1868, EP1 p. 55). One of the only

mentions of Peirce in *Philosophy and the Mirror of Nature* is in Rorty's acknowledgment that "the phrase *man's glassy essence* was first invoked in philosophy by C. S. Peirce"; he takes this opportunity, however, to take a dig at Peirce:

Peirce strangely thought [the "molecular theory of protoplasm"] important in confirming the view that "a person is nothing but a symbol involving a general idea" and in establishing the existence of "group minds." (Rorty 1979/2009, p. 42 note 10)

Rorty explains that Peirce first used the term in philosophy in an 1892 essay, "Man's Glassy Essence" (ibid.). In fact, Peirce first quoted the lines from *Measure for Measure* in his far better-known 1868 article, "Some Consequences of Four Incapacities." By pointing instead to the 1892 essay, Rorty seems to be going out of his way to take a dig at Peirce because of his seemingly obscure interest in the molecular theory of protoplasm. This criticism is directly connected to the general view that Rorty was disdainful of Peirce because he understood him to be part of the classical philosophical project—as evident in his seeking foundations for knowledge, and maintaining the reality of universals, for example¹⁶—and not to be part of the Jamesian and Deweyan revolution to which he sees himself belonging (e.g., Hookway 1985).

In his political views, Rorty similarly accepts the historicist criticism that there is no one right answer to moral questions, or a vantage point or understanding of the self that can exist outside of a historical context (Rorty 1990/2011, p. 382). He follows Dewey in eschewing the need to justify liberal democracy, and claims that John Rawls shows us that this is possible—"shows us how liberal democracy can get along without

¹⁶ See, e.g., Diggins 1994, p. 11–12.

philosophical presuppositions” (ibid., p. 384). There is no need to provide justification for liberal democracy because we are products of the Enlightenment and thus already understand justice to be the “first virtue” (ibid., p. 386). Rorty explains that by giving up the goal of providing philosophical foundations for our politics and moral lives, Dewey’s approach to politics leaves us with more hope than does Heidegger’s (ibid., p. 394; 1979/1982, p. 161).

The role Rorty sees for political philosophy is not to justify democracy, but rather to provide it a “philosophical articulation”: the political philosopher “[puts] politics first and [tailors] a philosophy to suit” (Rorty 1990/2011, p. 384). To this end, Rorty sees in the communitarian thought of those like Charles Taylor a conception of the self—as constituted by the community—that “comport[s] well” with the liberal democratic order (ibid.). Whereas these communitarians think that liberal democracy needs to be justified by such a doctrine of the self, Rorty simply considers the conception they provide to be more useful than is that of the Enlightenment’s ahistorical conception (ibid.). While acknowledging his “philosophical superficiality and light-mindedness” on these matters, Rorty explains it is in the service to the moral goal of making the “world’s inhabitants more pragmatic, more tolerant, more liberal, more receptive to the appeal of instrumental rationality” (ibid., p. 393–394). Like Dewey, Rorty also puts politics ahead of philosophy, and forthrightly acknowledges what this means: “When the two come into conflict, democracy takes precedence over philosophy” (ibid., p. 392). It is the American way for theory to serve practice; our form of liberalism, moreover, is an experiment, and even if it fails, its memory will be worth having (ibid., p. 394–395).

Within this framework, Rorty explains that we, with Rawls, can dismiss as “mad” the opinions of those who do not accept the premises of the liberal political order (ibid., p. 389). This is not because the fanatic interferes with the search for truth, but because he threatens the freedom of others (ibid., p. 386–387). Of course, this is not “mad” in any objective sense, for such a vantage point is not possible—our own moral intuitions have been formed in our own particular historical community and context (ibid., p. 391). Rather, if there is a fanatic who would prefer to disrupt the liberal political order rather than reap its benefits, we recognize that his position is not our position, and thus that we do not have to take his position seriously (ibid.). It could also be the case, Rorty thinks, that someone with Nietzsche’s criticism of liberalism might nonetheless seek to follow the rules of the liberal society because he sees value in its protection of political freedom (ibid., p. 393). This is, Rorty explains, Dewey’s stance toward democracy (ibid., p. 394).

With regard to his political theory, Rorty is circular in his argument, and seems to be both aware of this and unapologetic about it. In regard to both his epistemology and his political thought, there are elements of pragmatism evident in his thought: his understanding people’s beliefs as originating in their social context; related to this, his naturalistic understanding of the development of thought; his speaking of experiments and judging theory by its practical upshot. His eschewal of foundational questions is Deweyan, as is his attachment to the democratic political order for the sake of justice. Unlike Dewey, he does not tout the democratic political order because of its superiority as a method for decision making; he is both more modest and honest than is Dewey in this regard, explaining that his attachment is due to the fact that constitutional democracy is best aligned with his sense of justice, in that it seeks to protect political freedom. In the

ways in which Rorty follows Dewey he diverges from Peirce. Whereas Peirce understood that we develop our understanding of the world around us in a social context, influenced by the language and ideas of those around us, he also thought the role of philosophy was not simply to justify such ideas, but rather to purify them. Peirce touted the method of science because it—and it alone among the methods of settling doubt that have arisen—is able to purify our thought of that which is accidental to it, and home in on that which is not arbitrary, in other words, that which is true in it. His method of settling doubt fit into the scholastic realism he was trying to recover in the post-Kantian age. He understood that this recovery depended on metaphysical grounding as well as a logical doctrine. Rorty, by contrast, neither thinks that there is an objective reality to uncover, nor that metaphysical concerns are worth philosophers' time anymore.

Hilary Putnam agrees with Rorty that seeking foundations for knowledge is futile; he accepts this as a “fact of life” (Putnam 1992/2011, p. 321). He explains that he agrees with Rorty that metaphysical doctrines of realism are characterized by “philosophical fantasy” (ibid., p. 327). “Realism is an impossible attempt to view the world from Nowhere” (ibid., p. 329). We learn that Putnam means by this that conceiving any reality, such as that of a tree, occurs within a conceptual framework, including one's language (ibid., p. 328–329). Putnam explains that he and Rorty disagree in their response to this acknowledgment. Putnam does not agree with Rorty that metaphysical failure means the failure of our culture and the need to alter ordinary ways of speaking and thinking; Putnam sounds like James when he explains that “ways of talking and thinking which have practical and spiritual weight” should not simply be abandoned (ibid., p. 322). In other words, usefulness replaces firm foundations for Putnam. Philosophy can aid culture

by illuminating illusions and judging the relative strengths of different ways of thinking (ibid., p. 322–323).

While rejecting both “Realism” and “Relativism” that seek a vantage point outside of language and context, Putnam supports a small “r” “realism” (ibid., p. 327–329). This realism acknowledges that there can be standards and better and worse ways of thinking and justification that are independent of what any majority at any particular time may believe, but that are not independent of the norms and standards that have evolved in the history of a community (ibid., p. 323). These standards and norms can, moreover, be reformed—though they remain subject to being judged by a community’s “picture of the world” (ibid., p. 324–325, 327). By identifying independent standards in this way, Putnam is attempting to avoid the relativism of the historicist that accepts whatever standards and practices take hold; as well as Rorty’s similar position that deems warranted whatever best helps a community cope (ibid., p. 324–326).

In his attempt to identify a standard for truth independent of what any particular group thinks at any particular time while nonetheless recognizing the historical nature of knowledge, Putnam seems to be invoking features of Peirce’s formulation of truth. He indeed thinks his position is aligned with that of Peirce (ibid., p. 323). We will see, however, that Peirce did not think that truth was culturally or communally determined or specific, as Putnam here indicates. Truth, for Peirce, is dependent only on the human mind in its experience of the world.

Putnam admires Dewey’s attempts to both “produce a rationale for democratic institutions” as well as a “standpoint from which to criticize the failures of those institutions” (Putnam 1990/2011, p. 333). To—with Rorty—not attempt to justify liberal

democracy, to not think that liberal democracy is superior to non-liberal forms of government, is to be a relativist (ibid., p. 333–334). It is moreover paternalistic to not inform oppressed people of alternative ways of life; it is, Putnam cites Peirce in explaining, to “block the path of inquiry” (ibid., p. 334–335). Putnam views Dewey’s democratic theory as superior to those of contemporary continental thinkers who look to pragmatism in their political theory, like Jurgen Habermas and Karl-Otto Apel, because whereas the continental thinkers look to pragmatism to shape their transcendental theories justifying democracy, Dewey’s democratic theory rests ultimately on empirical grounds:

For Dewey, the justification of democracy rests at every point on arguments which are not at all transcendental, but which represent the fruit of our collective experience (ibid., p. 343).

Putnam moreover admires Dewey for being an admitted democrat while not being partisan or an apologist: “his reflection on democracy never degenerates into mere propaganda for the democratic status quo” (ibid., p. 348).

Whereas Putnam has general praise for Dewey’s democratic theory, he acknowledges problems with Dewey’s moral theory, which advocates using “intelligently guided experimentation in solving ethical problems” (ibid.) “Like all consequentialists,” Putnam explains, “Dewey has trouble doing justice to considerations of what is right” (ibid.). He identifies instead with James’s views on morality (ibid., p. 344–345).

Though he acknowledges that Peirce eventually “repudiated both the label ‘pragmatism’ and much that William James and Dewey associated with that word,”

Putnam finds helpful insights in Peirce's famous 1877 and 1878 essays (ibid., p. 336).

Putnam extols Peirce's formulation of the scientific method:

Testing one's ideas in practice, and maintaining an attitude of fallibilism toward them. . . . More than any scientific philosopher of his time, Peirce stressed that scientific method is not *just* a matter of experimentation, but experimentation and testing remain crucial in the formation of rational beliefs about matters of fact. (ibid., p. 337)

Putnam explains that "Peirce's sense of fallibilism" requires that "one see experimentation, in the widest sense of that term, as the decisive element in rational paradigm change" (ibid.). Putnam also seems to agree with Peirce's efforts to do away with sham doubts (ibid., p. 338). Putnam agrees with Dewey that democracy is the application of the scientific method to the political and social realm, utilizing the viewpoints and capacities of the citizens of a community (ibid.). He further admires Dewey's insistence that we do not need a theory to prove everything—for example, that there indeed exist solutions that are better or worse than others (ibid., p. 338–339).

By following Dewey and eagerly applying Peircean insights to the practical realm, Putnam falls into the same problem as does Dewey—about which Peirce warned—that scientific inquiry must take into consideration moral and political concerns:

The decision that, for weighty moral reasons, we are better off not knowing certain things is at time perfectly justified. Indeed, someone who thought that we had an obligation to discover the most effective ways to torture people and a further obligation to publicize that knowledge would be a monster. (ibid., p. 341–342)

It is on this ground that he criticizes Habermas's attempt to provide an epistemological foundation for democracy based on the notion of a community of inquirers:

The problem with . . . Habermas[’s argument] . . . is that what is required for the optimal pursuit of truth may not be what is required for human flourishing or even for human survival. (ibid.)

He similarly points out the objection I will make in the next section with regard to the efforts of those who want to use pragmatism to ground democratic theory, that there are plenty of people who will not be philosophical inquirers (as Peirce readily acknowledges): “Avoiding ‘pragmatic self-contradiction’ in this highly sophisticated sense can hardly be the supreme maxim governing human life!” (ibid., p. 342). In this discussion Putnam himself tries to draw a line of distinction between pure theoretical inquiry and inquiry into practical uses:

I recognize that pursuing pure physics will undoubtedly lead to discoveries that can be used to make weapons. But the fact remains that there is a difference between trying to discover fundamental laws of nature and trying to discover specific engineering applications. (ibid., p. 341)

In other words, like Rorty, he explicitly acknowledges what appears to be only implicit in Dewey’s thought on democracy: that in the practical realm, the good of the community must trump pure inquiry. Putnam is willing, then, to “block the path of inquiry” in certain cases. Given his acknowledgment that truth and what is good for society at times conflict, it is curious that Putnam does not take seriously Peirce’s concerns about not appropriately separating theory and practice; indeed, he dismisses these views as simply indicative of Peirce’s conservatism (Putnam 2013).

III. Peirce and Democratic Theory

For the second half of the twentieth century, pragmatism was chiefly associated with the Deweyan and Rortian variant of pragmatism. Under such leadership, pragmatism in the political realm came to mean a “radical democratic” politics¹⁷; the use of the scientific method with regard to social and political matters¹⁸; that there was nothing beyond the meaning humans give to the world¹⁹; that philosophy should focus on practical problems and stop searching for theoretical foundations²⁰; and the two charges, in opposition with one another, that pragmatism is synonymous with progressive politics²¹ or that it acquiesces to “dominant social and cultural forces.”²²

There has been renewed interest in Peirce of late. This seems to be due to much that is attractive about him: he recognizes the fallibilistic nature of our knowledge, but tries to fight off extreme skepticism by articulating how truth could still be understood.²³ In practical matters, at a time when the West is increasingly skeptical of—or unsure of how to defend—its own values or principles, scholars have turned to Peirce to articulate a defensible theory of ethics and political arrangement; most prominent among such scholars is Jurgen Habermas. In this section, we will look at three scholars’ recent turns to Peirce: those of Habermas, Cheryl Misak, and Robert B. Talisse. Habermas and Misak

¹⁷ See, for example, Bernstein (1992); Knight and Johnson (1996); MacGilvray (2000).

¹⁸ See, for example, Diggins (1994); Kaufman-Osborn (1992); MacGilvray (2000).

¹⁹ C. Anderson (1990), p. 183; See, for example, Kaufman-Osborn (1992).

²⁰ MacGilvray (2000), p. 481.

²¹ See, for example, Westbrook (1991); West (1989).

²² MacGilvray (2000), p. 481–482; see, for example, Mumford (1926).

²³ In Hilary Putnam’s words: “that one can be both fallibilistic *and* antiskeptical is perhaps *the* unique insight of American pragmatism” (Putnam 1994, p. 152).

seek to use Peirce to ground a theory of ethics. Talisse takes this one step further and attempts to use Peircean thought to provide the grounds for a post-liberal democratic politics. In addition to these three efforts, we will look at another type of practical appeal to pragmatism in the political realm by Charles W. Anderson, who uses pragmatism as a political method to supplement liberalism. This section will examine each of these positions; in this examination, mention will be made about where my interpretation agrees with or disagrees with these scholars' uses of Peirce. A fuller account of my interpretation will occur throughout the chapters of this dissertation; with regard to practical matters, especially in chapters 4 and 5. In this examination, we will proceed from the most overtly political invocation of Peirce, and thus start with Talisse.²⁴

Talisse uses Peirce's pragmatism as guidance in formulating a post-liberal theory of democracy. Talisse sees validity in the communitarian and civic republican criticisms of liberalism, though he finds their proposed solutions inadequate. He agrees with such critics that because of modern liberal democracy's neutrality with regard to values, its rights and institutions that prioritize the individual over the community are not robust enough to provide meaning for political life; what results is weak communities, alienated individuals, and disengaged citizens (Talisse 2005, p. 2–7). Critics like Michael Sandel recommend that a democracy needs to “promote a particular moral conception”; cultivate civic virtue in its citizens; and “actively engage in building and sustaining proper communities,” which entails protecting “communities and their traditions” (Talisse 2005,

²⁴ Other recent examples of efforts to use pragmatism to provide foundations for participatory democracy include Kadlec (2007); MacGilvray (2000); MacGilvray (2004); and Talisse (2008). For a review of some of these efforts, see Festenstein (2010).

p. 7). While sympathetic to the communitarian criticism, Talisse also agrees with liberal critics who see in the communitarian recommendations reasons to be concerned that individual rights would not be protected in such a political order (ibid.).

Liberal democracy is further suffering, Talisse argues, from confusion as to the nature of its rights and at what they aim. This confusion is particularly poignant when a tension within liberalism is recognized: on the one hand, liberalism prides itself on its neutrality that accommodates a pluralistic society; but on the other hand, it thinks it is superior to other forms of government, which is not in fact a neutral position and thus appears to conflict with the “social pluralism” of today (Talisse 2005, p. 8–9). Thus a conflict arises. To bypass this tension, what is needed is an account of democracy that can argue for its superiority as compared with other forms of government in a way that acknowledges, rather than conflicts with, its accommodation of pluralism (ibid., p. 9). Among other things, this account will provide a clear understanding of the nature and purpose of democratic rights.

Talisse thus sets out to formulate a “fully deliberativist theory” of democracy that avoids the pitfalls of liberalism while holding on to key features of liberal rights and institutions (ibid., p. 10; p. 120). It similarly attempts to avoid the problems of communitarianism and accommodate pluralistic notions of the good, while being able to articulate why it is superior to other forms of government. Talisse’s deliberativist theory accomplishes this, he explains, by “insisting that the formative role of the state is epistemological and not moral” (ibid., p. 10). This means the state makes epistemological claims on its citizens—claims about the nature of knowledge and argument—and not moral claims. Talisse looks to Peirce for guidance on this deliberativist theory. In

Peirce's thought, Talisse sees a "direct connection between proper inquiry and democratic politics" (ibid., p. 11).²⁵ Specifically, he is attracted to the presentation of inquiry and belief in Peirce's "The Fixation of Belief," and attempts to construct a political theory that builds off of it.

Talisse reads "Fixation" to say that to hold a belief means one is open to justifying and defending that belief based on reason and argument (Talisse 2012, p. 118–119). By holding a belief, one is thus implicitly attached to reasonable public discourse (Talisse 2005, p. 103; Talisse 2012, p. 119–120). Based on this understanding, Talisse argues that a democracy with liberal institutions and rights—a constitution that guarantees everyone is equal under the law, enables political participation, guarantees of rights of speech, assembly, and free press—best accommodates the notion that individuals are holders of belief, as well as promotes a robust public discourse in which those beliefs can be argued for and refined (Talisse 2005, p. 108; Talisse 2012, p. 120). Such a deliberative democracy will best be equipped to foster a public discourse that can utilize citizens' myriad beliefs and arguments to come up with solutions to political problems (Talisse 2005, p. 107). Indeed, cultivating its citizens' deliberative faculties will be what the state understands as its primary function: "I contend that the state's formative role is that of enabling and cultivating the intellectual habits requisite to competent deliberation" (Talisse 2005, p. 10). In addition to liberal institutions and the guarantee of liberal rights,

²⁵ Talisse makes clear in the earlier of the two books reviewed here that his proposal is inspired by Peircean pragmatism, but that his work in no way intends to be exegetical of Peirce's thought or simply a restatement of anyone's position (Talisse 2005, p. 11). In the later of the two books, Talisse goes so far as to say that he does not care if his understanding of Peirce is indeed accurate; if Peirce can not be read to support his deliberative pragmatist democracy, then that speaks poorly for Peirce (Talisse 2012, p. 118).

a public education and minimal welfare guarantee are similarly necessary to this end (Talisse 2005, p. 108; Talisse 2012, p. 120).

Such a democracy will not understand itself to be neutral with regard to values. It will, instead, require that its citizens exhibit the virtues of public deliberation in order to be deliberating members (Talisse 2005, p. 111–113). While politically rich, these virtues are epistemologically neutral as they make no claims as to what is to be believed, only about what it means to have a belief (Talisse 2005, p. 111, 120; Talisse 2012, p. 120). It is in this way that Talisse’s pragmatist deliberativism hopes to navigate around the deficiencies plaguing both liberalism and the anti-liberal communitarianism (Talisse 2005, p. 120). This theory of government offers individual protection against the majority, while at the same time recognizing that individuals are not isolated creatures but rather “sharers in a common socio-political world and the joint inheritors of political institutions, historical traditions, ideas, principles, conflicts, and problems” (Talisse 2005, p. 120). An added virtue of this political model is that the nature of political rights will be clearer than it is in the liberal model:

Individual rights are instruments to political wisdom, tools for crafting a “republic of reasons,” not endowments or possessions granted from unknown or other worldly sources. (Talisse 2005, p. 121)

Rights, in other words, will be understood as tools that help facilitate discourse and deliberation.

Peirce’s pragmatism offers a better model upon which to base a deliberative political theory for a pluralistic society than does Deweyan democracy because the latter is “too philosophically committed” to be able to sufficiently “accommodate the fact of

reasonable pluralism” (Talissee 2012, p. 109–110). By “reasonable pluralism,” he means of a type that John Rawls observed a constitutional liberal democracy gives rise to (ibid., p. 113). Talisse notes some key features of Deweyan democracy: a democracy’s desire for its citizens to flourish; to be democratic as a way of life, not simply politically; to be highly engaged citizens who argue with and are persuaded by reason (ibid., p. 111–112). As I argue in chapter 5, the way of life Deweyan democracy aims to promote is itself determined non-democratically; Talisse puts it thus, “the democratic way of life is *normatively prior* to political democracy” (ibid., p. 113). The problem is, as Rawls points out, a political system that has as its premise “the truth of any comprehensive doctrine” is going to be oppressive in a pluralistic society; “it is oppressive because it would allow the coercion of citizens in the service of a comprehensive ideal that they could reasonably reject” (ibid., p. 114). It is for this reason that Deweyan democracy fails (ibid.).

The Peircean epistemology at the heart of Talisse’s social epistemic liberalism, in contrast, makes only limited claims, and the claims it does make simply concern our nature as believing inquirers:

It sees our cognitive lives in terms of a continuing struggle to arrive at beliefs that can survive the trial of ongoing experience. Moreover, it locates the motivation to inquire within the very phenomenon of belief. . . . Inquiry is . . . continuing, piecemeal, and fallible . . . [and] *local*.” (ibid., p. 122)

Peircean epistemology, in other words, makes no moral claims about what a citizen is, and thus can accommodate a reasonable pluralism that Deweyan democracy cannot.

An analysis of Talisse’s arguments ought to begin by noting that he seems to be simply begging the question in favor of a liberal-flavored democracy. He more or less

acknowledges as much when he says that he seeks to keep liberal democratic institutions and rights while coming up with a new justificatory theory:

We must disentangle liberalism as a series of political commitments from the various liberal theories that have been proposed as philosophical articulations and defenses of liberalism. Many of the political commitments of liberalism will be retained in some form or another, while liberal theory will be criticized and rejected. (Talisie 2005, p. 8)

Aside from the dubiousness of this tactic in the abstract, Talisie's argument proceeds along lines that raise doubt as to whether he is in fact able to accommodate the pluralism that is his stated goal. Talisie claims that his political arrangement assumes no metaphysical or moral truth, but only a nature of belief to which all believers implicitly assent (Talisie 2005, p. 106, 111; Talisie 2012, p. 120).

If being a believer commits one to aspiring to truth, and if one aspires to truth by responding to reasons, then responsible believing calls us to the social enterprise of examining, exchanging, and challenging reasons. Hence one can satisfy one's commitments *qua* believer only within a political context in which it is possible to inquire. (Talisie 2012, p. 120)

Similarly:

Democratic institutions and norms are modeled strictly in terms of a set of *epistemic* commitments that are internal to belief. . . . *No matter what you believe* about the good life, the nature of the self, or the purpose of human existence, you take yourself to believe those things responsibly; thus, you have a reason to endorse a democratic political order of the sort described above. The epistemic commitments that are internal to belief are sufficient. No moral doctrine is presupposed. (ibid.)

However, it seems very clear from observing the world that plenty of people hold convictions that they in no way feel the need to justify to others. “Reasons” and “argument” are of the realm of philosophy, and are irrelevant to the devoutly religious. In “Fixation,” Peirce himself noted that “the method of authority will always govern the mass of mankind” (1877/1992 p. 121).²⁶ Talisse’s explanation that

a plausible appeal to pluralism must admit to some constraints upon the kinds of moral, philosophical, and religious views that a democratic polity must accommodate and accordingly must allow for some appeal to. (Talisse 2005, p. 116)

merely highlights the problem rather than addressing it.

In addition, Talisse entirely misreads Peirce and Peircean pragmatism. This is related to the above point; it seems Talisse strongly wants to argue for a certain way of viewing politics, so much so that he is not going to let something like the actual words in the text get in the way. Talisse reads Peirce as supporting the application of the scientific method in politics and to everyday affairs. He sees in Peirce’s examination about philosophic method a democratic understanding of what men are and how they should act. Moreover, he completely ignores Peirce’s calls for separating theory and practice, and in no way seeks to find any modest yet sound understanding in Peirce for the connection between philosophy and practice. This dissertation aims to provide a fuller

²⁶ Talisse attempts to acknowledge Peirce’s warning: “Peirce noted that when confronted with the inadequacy of the grounds of their beliefs, people often remain tenacious and refuse to revise their beliefs” (Talisse 2005, p. 109); yet he seems to read Peirce as meaning this is a problem that can be fixed rather than an intractable fact about man’s social condition, which, as I argue in chapter 2, is Peirce’s actual position.

analysis of Peirce's actual positions with regard to philosophy and its connection to practical and political things.

What Talisse in fact appears to argue for is a Deweyan-lite democracy—or, said in another way, he ultimately seems to want a Deweyan democracy that allows for greater pluralism. Like Dewey, Talisse thinks democracies ought to be tasked with cultivating the deliberative faculties of its citizens. Talisse similarly also views the political realm as analogous to the scientific and democracy as a tool for decision making, maintaining that political decisions will best be reached when citizens deliberate together. Talisse in fact admits that his political theory is after a progressive democratic politics like that of Dewey:

When liberal theory is rejected but the key features of liberalism retained, the result is a theory that is “liberal” in the sense that was popular in the middle of the twentieth century and represented by figures such as Bertrand Russell, Morris Cohen, and John Dewey. A liberal in this sense is a political progressive who is committed to social democracy, self-realization, some mode of economic redistribution, and the free exercise of human intelligence in confronting social problems. (Talisse 2005, p. 8)

Similarly:

The social epistemic view I have sketched enables us to advocate more effectively on behalf of the progressive and radically democratic measure that pragmatists like Dewey have traditionally supported. (Talisse 2012, p. 125)

Where Talisse differs from Dewey is in his desire to accommodate pluralistic conceptions of the good—including communities that are undemocratic—rather than simply one conception to which all citizens ought to conform. Moreover, whereas Dewey ultimately

supported democracy because he saw it as the only way that men could live together peacefully, matters of peace and security do not appear to concern Talisse; rather, Talisse is primarily interested in providing a theory for democracy that does justice to man's nature as an inquiring believer. Talisse's preference for progressive democratic politics seems to be at the root of the main problems identified here: his misreading of Peirce, as well as his attempt to accommodate pluralistic understandings of the good that can not in fact accommodate those who do not already accept philosophical premises. His preference, in other words, seems to have blinded him to the problems of his system—and thus, moreover, to a fuller understanding of politics and its limits.²⁷

Cheryl Misak looks to Peirce's pragmatism to provide a framework for formulating a foundationless yet objective ethical and political theory. In doing so, she is more modest than is Talisse, both in her claims about Peirce as well as in her goals in general—a modesty that befits a Peircean. The problem Misak sees in the realm of political and moral theory is that it is assumed that there are no objective foundations upon which a view of ethics can be based that all could agree to:

It is almost a philosophical commonplace these days to reject the idea that we might find a foundation for our principles of right belief and of right action in some infallible source—from God, from some special faculty of intuition, or from what is given to us with certainty by experience. (Misak 2000, p. 2)

²⁷ In regards to Talisse's theoretical project in general and his taking issue with liberalism's supposed neutrality: I agree with J. Judd Owen who recommends that those interested in understanding the commitments of liberalism look to the philosophy of John Locke (Owen 2001, p. 168-169). Lockean liberalism is in fact not neutral and has only modest, but attainable and impressive, aims with regard to the ends of the state and the toleration of minorities within it.

Rorty, for one, has done much to show that a foundationalist justification “cannot be had” (ibid., p. 5). What is problematic about Rorty’s views is that, in his rejection of “the dichotomy between an utterly secure grounding and an arbitrary grounding,” he does not provide us with a “positive view,” that is able to do justice to the way we think about matters of morality (ibid., p. 2).

Our experience of morality suggests we implicitly assume there is such a thing as objectively right or wrong action or beliefs; morality is more than mere taste and more than merely subjective or relative. We think seriously about the reasons for our moral convictions and think it is possible to convince others of our moral positions (ibid., p. 3). We do not, moreover, think it would be sufficient if someone simply pretended to agree with our moral arguments; rather, we want to be able to genuinely convince others of our position (ibid.). We also acknowledge a difference between what we think is true and what is actually true—we do not hold what we think to be the case to be true simply by that fact (ibid.). In other words, our experience of morality demands to be taken more seriously than Rorty’s answer—that we “abandon the notions of truth and objectivity and somehow find it good enough to say that one belief happens to be best for us and an incompatible belief happens to be best for others” (ibid., p. 6)—can.

The fact that our moral judgments come under such internal discipline is a mark of their objectivity. The above phenomena are indications that moral inquiry aims at truth. They are indications that the relativist or non-cognitivist thought is not the thought which should stand at the start of our moral theory. (ibid., p. 3)

It is up to the political and moral theorist, Misak explains, to be able to articulate how we can still think of our morality as objective—in a manner, in other words, that fits with our

experience of morality—though we might abandon the hope to uncover foundations to undergird that morality (ibid., p. 2–3).

Misak looks to Peirce’s epistemology to provide guidance on how to formulate such a view of morality. She finds several features of Peirce’s pragmatism attractive, and to be a more promising framework than those provided by other pragmatists like James or Rorty (Misak 2000, p. 49): These principles include Peirce’s understanding that truth is that which has held up to inquiry from all sorts of angles, and which can not be improved upon by further inquiry (ibid.; Misak 2004b, p. 150); his fallibilism, which yields a healthy modesty with regard to one’s claims about truth (Misak 2004b, p. 152–153); and Peirce’s recognition that we come to inquiry with a “body of background beliefs” that we hold to be true until experience brings them into doubt (ibid., p. 153). The scientific method is Peirce’s preferred method for settling doubt because it best aims at truth—at those stable beliefs that will not be upset by future inquiry. By its nature, the scientific method also accommodates fallibilism as well as the piecemeal fashion in which truth is uncovered when beliefs are held to be true until they are unsettled by doubt (ibid., p. 153–154). Misak explains, moreover, that as opposed to the logical positivists, Peirce also recognizes that truth can concern not only matters of outward experience, but also of inner experience; Peirce’s pragmatism is thus especially fit to be a guide for objective truth in moral matters, and thus an aid in combating moral relativism (Misak 2000, p. 1–2; Misak 2004b, p. 154–158).

What follows from Peirce’s pragmatism is the understanding that beliefs must continue to be “responsive to experience and to reasons” (Misak 2000, p. 102). Similarly,

having a belief means that one is “committed to giving reasons for that belief” (ibid.). This was, of course, Talisse’s take-away regarding Peirce’s philosophy, and where he sees his views converging with Misak’s (Talisse 2005, p. 103–107).²⁸ Misak argues that a “methodological principle” comes out of Peirce’s notion of truth being that which holds up to all further inquiry: “the experience of others must be taken seriously” (Misak 2000, p. 6). The consequence of this principle in the “moral and political realm” is that everyone ought to be “given the chance to contribute to debate,” in other words, “it requires a democracy in inquiry” (ibid.). One will not be able to arrive at true beliefs if one categorically dismisses the beliefs of others based on their “gender, skin color, or sexual orientation” (ibid., p. 104). Expansive inclusion in political discourse is thus necessary if we want our political and moral decision making to aim at truth. Misak acknowledges that her pragmatist political theory relies on the assumption that we aim at truth in the political and moral arenas, but explains that this assumption is justified because “we are . . . hard pressed to find opponents in our moral and political lives who do not assert or believe or claim that their position is true, or best, or that which ought to be enforced” (ibid., p. 105).

Misak’s methodological principle is intended as a guiding principle for political discourse; it in no way intends to provide an answer for all political and moral questions (ibid., p. 6–7). It will, moreover, not decide that the results of political discourse are true,

²⁸ As with Talisse, Misak here seems to be ultimately begging the question of what a legitimate belief is based on the terms of philosophy; there are plenty of people who would be happy to convince others of their position by the sword rather than by persuasive argument.

rather only that they are legitimate (ibid., p. 7). Based on the methodological principle, Misak offers some suggestions that seek to promote the aim of political inclusion.

Deliberation must be encouraged and political institutions and mechanisms for decision-making must be as inclusive as is reasonably possible. The pragmatist voices the requirement that we try . . . to include rather than exclude others. This entails listening carefully to the marginalized in society. (ibid., p. 127)

Misak commends, for example, Nelson Mandela's inclusion of the "right wing Afrikaner nationalist group," Freedom Front, "in his negotiations for the new structure of the country" (ibid., p. 127). Given that the pragmatist recognizes his own fallibility, he seeks to let each decide how best to conduct his or her private life:

The pragmatist does not fail to see that lives tend to go better when governed from the inside—from the values and beliefs of the individual who is living that life. And the pragmatist does not fail to see that the good cannot be *imposed* on people, that discovering the good for oneself is vital to a good life. (ibid., p. 114–115)

Thus the pragmatist would argue against laws against homosexuality because "they are oppressive and . . . claim a harm to individuals and to society where there is no harm" (ibid., p. 115). At the same time, Misak makes clear that her suggestions are merely suggestions, and are open to debate and revision (ibid., p. 7).

Misak is clear throughout her examination that a true pragmatist must be modest in his claims (e.g., ibid., p. 155–156). A pragmatist in the political realm also must be careful to not beg the question in the favor of democracy. The democratic notion of the equality of all persons, for example, cannot simply be assumed (ibid., p. 7). With the limited claims that the epistemological principle will justify, a true Peircean will moreover recognize that there are different forms of "democratic political arrangements"

that are fit for different peoples, times, and places (ibid., p. 156). While Misak is more modest about what she thinks her political theory can justify than is Talisse, she similarly offers a political theory based on what the nature of belief is; a form of government that allows for inclusive debate is best because it is open to continuing examination and thus best aims at reaching those ideas that will withstand future inquiry. In other words, it best aims at the truth; and this consideration is what provides justification for a political order. An inclusive government will also have the benefit of likely moderating extreme positions by forcing their exponents to respond to the arguments of those on the other side (ibid., p. 127).

In turning to Peirce, Misak is clear and open about the fact that there are aspects of Peirce's thought that cut against her efforts—most especially his statements that theoretical inquiry and inquiry regarding vital matters ought to be kept separate, and his resulting conservatism (e.g., Misak 2000, p. 48; Misak 2004b, p. 159). She nonetheless argues that her use of his epistemology is justified and backs up her position with a thoughtful examination of a myriad of Peirce texts. Her desire to understand what Peirce really thinks as well as identify tension in his thought is admirable, as is her larger project of attempting to save morality from relativism. It seems to me she makes many persuasive arguments to defend her project. Nonetheless, by seeking to prove what she wants to in Peirce's thought, she does not take seriously enough some of his key insights on the ways in which theoretical and practical things differ.

How my interpretation of Peirce differs from Misak's will be made clearer throughout this dissertation; for now, a few remarks will suffice. As is the case with my criticism of Talisse's use of Peirce, in chapter 2 I will make clear that in "The Fixation of

Belief,” Peirce in no way advocates the scientific method be used by everyone, or that truth will best be arrived at the more individuals’ opinions are considered; in other words, including everybody in the “community of inquirers” would promise, in Peirce’s view, to obfuscate the search for truth rather than promote it. In chapter 3, I will make clear that pragmatism for Peirce is simply a logical maxim and not a metaphysical one. Among other reasons, this is important because Peirce did think that metaphysical foundations were important for knowledge to be possible, and moreover, that those foundations were separate from and not subject to his logical doctrine of pragmatism. In chapters 4 and 5, I examine Peirce’s call that theory and practice ought to be separate, with different virtues governing each realm. While Misak is probably ultimately justified by Peirce’s own thought, at least to some extent, in applying the pragmatic maxim to practical matters, she also loses an important part of his understanding of practical affairs by not taking more seriously his call for vital matters to be under the governance of instinct and tradition.

Misak’s theory has an affinity with that of Jurgen Habermas (Misak 2000, p. 5). In *Truth and Justification*, Habermas claims to be a Kantian pragmatist (Habermas 2003, p. 8). By this, he seems to mean that he largely adopts the epistemological framework of Charles S. Peirce—but one that takes into account the moral and legal norms of man’s lifeworld (ibid., p. 13–15).²⁹ Habermas’s pragmatism recognizes the intersubjective nature of truth, as well as the capability for knowledge to grow and correct itself through

²⁹ To be sure, Habermas cites other philosophical influences in addition to Peirce, notably Wittgenstein and Husserl, as well as Kant, of course. The brief examination into Habermas’s thought here focuses on ways in which his thought is similar to Peirce’s, and ways in which it diverges from Peirce’s thought.

experience and conversation; Peirce's semeiotics³⁰ seems to have been a significant source of the former theory, and his writings on the nature of belief, doubt, and inquiry a significant source of the latter (e.g., *ibid.*, p. 3, 26). As a Kantian pragmatist, Habermas applies Peirce's detranscendentalized³¹ realism to the moral realm:

Kantian pragmatism . . . relies on the transcendental fact that subjects capable of speech and action, who can be affected by reasons, can learn—and in the long run even “cannot not learn.” And they learn just as much in the moral-cognitive dimension of interacting with one another as they do in the cognitive dimension of interacting with the world. (*ibid.*, p. 8)

Moral claims that result from “these fallible learning processes” are to be understood to be, at most, “*our* insights,” dependent on “those ways of knowing that our sociocultural forms of life make available to us” (*ibid.*, p. 9).

Habermas uses an understanding of men as communicative beings to provide a framework that can legitimize a pluralistic democracy—in other words, to provide the sufficient reasons for citizens to “observe the democratic rules of the game,” and thereby

³⁰ A study of Peirce's semeiotics is largely beyond the scope of this dissertation, though chapter 1 examines his early semiotic writings.

³¹ It is detranscendentalized in that it recognizes that man's cognitions result from his historical or evolutionary—and thus social—nature, and is one purified of a yearning to know the thing-in-itself.

Empirical judgments are *formed* in learning processes and *emerge from* how problems are solved. It is therefore pointless to gauge the idea of the validity of judgments by the difference between reality and appearance, between what is “in itself” and what is given “for us”—as though knowledge of something that is presumed to be immediate had to be purified of any subjective contribution and intersubjective mediation. Rather, knowledge results from the cognitive function of these contributions and mediations. (Habermas 2003, p. 26–27)

The “detranscendentalization” of “transcendental consciousness” means “the profane lifeworld [usurps] the transmundane place of the noumenal” (*ibid.*, p. 17).

do justice to the “genuinely normative sense of the intuitive understanding of democracy” (Habermas 1996, p. 295–296). Habermas promotes a discourse theory that aims at justice—fair decision making—in a matter that can accommodate pluralistic conceptions of the good life (ibid., p. 314). His discourse theory replaces liberal rights and “the ethical substance of a specific community” with rules and procedures for enabling discourse aimed at promoting understanding; he thereby seeks to avoid the weaknesses of both Lockean liberalism and Rousseauan republicanism (ibid., p. 296–297). Among the consequences of his discourse theory is that some matters of citizens’ private lives will be open to public discussion and regulation, while it is at the same time recognized that an “intimate sphere must be protected from intrusive forces and the critical eyes of strangers” (ibid., p. 313).

Like with Misak’s and Talisse’s recommendations, Habermas’s discourse theory seems fit for audiences already convinced of matters like egalitarianism, and that conflicts are best resolved through political channels rather than by violent means.

Only in an egalitarian public of citizens that has emerged from the confines of class and thrown off the millennia-old shackles of social stratification and exploitation can the potential of an unleashed cultural pluralism fully develop. (ibid., p. 308)

Indeed, he explains that it is the acceptance of the adjudication of disputes communicatively rather than by sheer force that might be the prime agreement that binds citizens in a secularized society.

In a secularized society that has learned to deal with its complexity consciously and deliberately, the communicative mastery of . . . conflicts constitutes the sole source of solidarity among strangers—strangers who renounce violence and, in the

cooperative regulation of their common life, also concede one another the right to *remain* strangers. (ibid.)

His theory seems fit for Western audiences, in other words, and to not be as accommodating of a real pluralism as it at first claims to be. The flip side of this coin is that his theory illustrates ways in which liberal democracies—or democracies that want in some way to protect liberal rights, or maintain liberal institutions—must be self-consciously intolerant at times. This is a fact about liberalism that Locke acknowledges, though many twentieth century liberal thinkers do not seem to want to.

Unlike Misak and Talisse, Habermas is more modest in what he claims to be taking from Peirce. He self-consciously combines various aspects of the thought of several twentieth century thinkers, including Husserl. Indeed, his self-attributed title as a “Kantian pragmatist” seems apt. Whereas Peirce’s philosophy seems like an inverse of Kant’s, resulting in Peirce largely ignoring moral matters, Habermas utilizes Peirce’s epistemology in his focus on moral and political matters.

Among recent scholarship that attempts to formulate a pragmatic political theory, at least one example applies pragmatism in a manner that is close, or closer, to my reading of Peirce. In *Pragmatic Liberalism*, Charles W. Anderson attempts to supplement liberal political theory with pragmatism, understood simply as a method of rationality; by itself, pragmatism has no “moral and political significance” (Anderson 1990, p. 2). Anderson appears to have a sound appreciation of Peirce’s pragmatism. He recognizes that Peirce, along with James and Dewey, was “grappling with the problem of truth” (ibid.). He explains that Peirce was both trying to defend reason—providing it with “sounder foundations by grounding it in the more commonplace processes of practical thought”

(ibid., p. 183–184)—while recognizing its limits (ibid., p. 185). He acknowledges, moreover, the important distinction that though Peirce mentions a community of inquirers, the real can never be understood as that which is agreed to by a group of men, but is rather ““that whose characters are independent of what anyone may think of them”” (ibid.).

Anderson’s use of pragmatism as a method of rationality fits well with Peirce’s understanding of it as a maxim, or tool, of logic. Anderson has a Peircean attitude in recognizing that we do not approach politics from a pre-political place, and moreover, that actual political dilemmas are not derived abstractly, but are those problems that arise in practice:

We enter public life always in midstream, never at the beginning. We are seized with a particular project: the construction of a road, the location of a factory. (ibid., p. 5–6)

Anderson also recognizes, like Peirce, that decisions in the political realm are not best governed by abstract theory, but rather require the practical judgment of statesmen—judgment that takes into account the many factors that are important in a particular context, including the traditions and nature of a community:

The art of judgment, of guiding the conduct of affairs in highly particular circumstances, is often said to depend on an experienced “feel” for the situation. (ibid., p. 6)

Liberalism supplies us with principles; knowing when and how to apply those principles is an “act of judgment” (ibid., p. 9). Like Peirce, Anderson also explains that training is most needed when tradition and principle need to be applied to new circumstances:

Our public problems arise within a complex legacy of ideas and institutions, and the issues that call for deliberative action concern the fitting of that legacy to new contingencies and opportunities. (ibid., p. 5)

Moreover, when it is necessary to derive political principles, it is best to look to experience to derive them, rather than to derive them in an *a priori* fashion and impose them on the political realm (ibid., p. 12–13).

Anderson's considerations seem to implicitly recognize Peirce's insistence that theory and practice be separated and the conservatism that results. Anderson's acknowledgment of the need for judgment and that particular circumstances need to be taken into account bespeak Peirce's insight that decision making about vital matters is best guided by tradition, instinct, and the practical wisdom of the statesman. Anderson assumes principles of liberalism not, as with Talisse and Misak, based on epistemological grounds, but because this is the context in which we find ourselves (ibid., p. 186–189). While this historicist starting place seems at first problematic because it provides us with no overriding principle by which to order our concerns and inform our decisions, it does employ the Peircean understanding that a true ethics arises when our abstract ideals are tested in and influenced by our experience. It similarly recognizes that the matters of the political realm are not a science but an art, requiring myriad factors be taken into account and balanced based on the particular context (ibid., p. 180). Moreover, Anderson's attempt to synthesize liberalism with pragmatism arguably fills in a gap in Peirce's seemingly incomplete political thought, providing an abstract principle to guide Peirce's conservatism; while a historicist could not say that this is the appropriate principle for all times and places, it is at least an appropriate principle to cite for our time and place. More

on how Anderson's project fits in with Peirce's thought will become clear in chapters 4 and 5.

It is important to point out that there are Deweyan aspects to Anderson's project, most especially his viewing political matters as analogous to science and technology, and thus "subject to *improvement* through disciplined analysis" (ibid., p. 182). Anderson, in other words, adopts a Deweyan understanding of the political and social realm's progressive potential:

Pragmatic liberalism presupposes a progressively evolving social and political order, in which constant and universal values, of human freedom and the larger significance of the enterprise of reason, provide a consistent reference point for evaluation, interpretation, and action. . . . Liberalism, in any form, requires a commitment to an order that progressively refines a certain notion of human worth and excellence. (ibid., p. 186)

Anderson identifies these progressive assumptions among the "idealist elements" of pragmatic thought (ibid., p. 185).

While Peirce hopes for a progression in science and knowledge, in the union between nature and man's mind,³² he holds out no hope for such improvement or progression in political matters. He certainly does not think that the mass of mankind will ever themselves approach the truth, or that political matters are at all analogous to scientific matters in terms of a progression toward greater truth. Peirce acknowledges that some decisions and judgments are better fits for certain situations, but not that we are, in these judgments, moving forward along any path of improvement. At most, Peirce recognizes that a true understanding of the whole will improve a man's instincts. And,

³² As Anderson correctly points out, C. Anderson 1990, p. 185.

moreover, that a man's ideals will themselves be tempered, and in that sense improved, by his experiences in the world, so long as he is open to learning from those experiences. These matters will be further explored in the fourth and fifth chapters.

Anderson's synthesis of liberalism and pragmatism, as well as his incorporation of themes from both Peirce and Dewey, are well displayed in his concluding chapter on education—specifically the “political education that would be compatible with the basic presuppositions of pragmatism liberalism” (ibid., p. 196). In his interest in promoting a civic education, rather than an education that aims to cultivate critical thinking skills, Anderson's interests are more like those of Dewey than they are like those of Peirce. However, his recommendations nonetheless reflect Peircean modesty, conservatism, and an appreciation of the artful judgment needed in practical decision making.

Like Dewey, Anderson proposes an education not only for an elite, but rather for citizens simply, who “assume responsibility for deliberating and trying to resolve public issues” (ibid.). This is certainly understandable given that he is consciously operating within a liberal democratic system. Anderson recognizes a value in “interpret[ing] public issues from diverse points of view, from the perspectives of different representative persons” (ibid., p. 200). On the surface this sounds similar to the political views of Dewey, as well as Talisse and Misak. However, whereas Dewey and Talisse favor canvassing the many so as to reach the best policy decisions—for people best know what they need—Anderson's recommendation sounds more similar to Peirce's curricular recommendation for training men to think from different perspectives as part of their critical thinking development. Anderson's recommendation is rooted not in the Deweyan point that individual men know what is best for them, but rather in the more Peircean

appreciation that a matter—in this case, a policy—is best understood if considered from the perspective of a diverse group of people (*ibid.*).

Similarly like Peirce, Anderson tries to incorporate a conservative appreciation for existing traditions and institutions into his proposed education scheme, even though he recognizes that a critical examination might ultimately undermine or transform these existing institutions:

Thorough understanding of the rationale of prevailing practice is a precondition for critical analysis. Granted, the fashionable pedagogy today is to encourage criticism before students have mastered the case for existing institutions and techniques, ideas and procedures. But this is putting the cart before the horse. For pragmatic liberalism, prevailing practice is the basing point for critical analysis. It is essential to understand why something was put there in the first place before one tries to change it or tear it down. (*ibid.*, p. 197)

Anderson suggests that institutions are best appreciated when examined from within the historical context in which they developed (*ibid.*, p. 198–199). This suggestion is similar, in fact, to the suggestions I offer in chapter 5, which I argue are Peircean in nature and which aim to fill the gap left by Peirce’s own incomplete political thought. That said, in his suggestion, Anderson verges on running into the problem that Peirce was trying desperately to avoid in his neglect of including a civic component in his curricular recommendations: namely, of stifling free inquiry and thus critical and clear thinking.

The dominant view [in political science today is] that, in the interest of neutrality, liberalism is to be construed only as an ideology, that the student, in the marketplace of ideas, once fully informed of the options . . . should be free to choose to be liberal, Marxist, Fascist, or whatever. Here, instead, we take liberalism to be the foundation of our system of political understanding. . . . Against the view

that the first function of political education is to cultivate critical reason, it is here understood that a thorough, constructive appreciation of the logic of liberalism should be demonstrated prior to induction into the systematic critique of it. (ibid., p. 198)

It is possible that Peirce's move was justified when assuming the education only of a very elite few, whereas Anderson's suggestion is more apt for the democratic masses. This issue will be taken up more extensively in chapter 5.

IV. Peirce's Epistemology

Questions of epistemology—how do we know the things we know, what is the status of our knowledge—are arguably at the heart of all of Peirce's philosophy; it is toward shedding light on these matters that his logic, theory of categories, work on statistics, and cosmology all aim (see, e.g., Hookway 1985, p. 2–3). Among scholars of Peirce, there has emerged a disagreement about how to understand Peirce's epistemology. Some scholars understand him to be a realist who is interested in defending such a position amid post-Kantian skepticism, while others see him as an extreme skeptic of the Kuhnian variety, in line with Rorty's variant of pragmatism. Below is a brief presentation of some of these different interpretations. As this dissertation's chief concern is the political consequence of Peirce's thought, we will not here be able to definitively treat the question of the ultimate status of knowledge for Peirce. The dissertation nonetheless hopes to shed some light on the debate, especially in its discussion of pragmatism in the first three chapters.

John E. Smith (1978) understands Peirce as a realist seeking to explain the success of modern science. Peirce understands truth to conform with and be constrained by an

external reality (Smith 1978, p. 51–52). This is in contrast to Dewey’s “transform” theory of truth, which “rejects . . . antecedent reality” and instead

emphasizes the problematic or indeterminate character of the situation wherein thought is operative and aims at transforming that situation into a settled or determinate affair. (ibid., p. 52)

Smith explains that “*the* assumption” for Peirce is that

“there is a true answer to whatever questions may be under discussion, which answer cannot be rendered false by anything that the disputants may say or think about it; and further, that the denial of that true answer is false.” (c.1901d/1998, CP 8.126; quoted in Smith 1978, p. 53)

Much of Peirce’s work aims to justify this assumption:

[Peirce was] concerned to offer, in terms of his evolutionary cosmology, a theory of the nature of mind, matter and temporal pattern that would render intelligible the fact that man discovers some truth about the real through the light of reason. In other words, the successes of scientific inquiry are not left in their immediacy at the level of brute fact but must be understood as manifestations of patterns of development underlying the evolution of the entire universe. (Smith 1978, p. 55)

Smith further notes that “reverberat[ing] throughout everything [Peirce] wrote” is the “firm conclusion” that “there is no escape from the criticism of ‘first principles’” (ibid., p. 127). This dissertation shares Smith’s view of Peirce as here presented, with the first three chapters aiming to defend and elaborate on points here brought up.

Almeder (1975) and Hausman (1993) also understand Peirce to be an epistemological realist. Hookway (1985) acknowledges that Peirce’s pragmatism was intertwined with a realism view of the external world and external necessities: “Peirce took his pragmatism to be inextricably linked to his realism” (Hookway 1985, p. 244).

Peirce saw much evidence that there were “necessities governing things” (ibid., p. 243). Hookway explains that “what the pragmatist principle does is to articulate just how law mediates the succession of events that occurs” (ibid.). Peirce moreover thought that his “mathematical work . . . provided an adequate logical analysis of continuity” that could justify that generalizations apply to actual cases in addition to real cases (ibid., p. 244).

Smith (1978) and Boler (2004) understand Peirce’s realism to be a form of “objective idealism” (Smith 1978, p. 18; Boler 2004, p. 76). Boler (2004) explains: “He seems to me all along to favor the broader sort of ‘objective idealism’ which argues not that the immediate object of knowledge is our own ideas but (roughly) that if knowledge is possible, the real as the object of knowledge must be idea-like” (Boler 2004, p. 76). Hookway (1985) explains that this is the “evident” understanding of Peirce’s position and explains that it is clear that Peirce is not a subjective idealist (Hookway 1985, p. 285–286).

He believes that we know about objects which are not just states of our own minds, and, through his theory of perception, holds that we are directly aware of external objects. Ordinary empirical objects are real, and their character is independent of the will or opinion of any agents or inquirers. (ibid., p. 285)

However, Hookway also points out that Peirce’s ultimate understanding retains a Kantian, “transcendental idealist” flavor (ibid., p. 286–288), though Peirce’s metaphysics aimed to “assure us of a hoped-for attunement between our cognitive nature and reality” (ibid., p. 287).

In contrast to Smith and Hookway, Sandra B. Rosenthal (1994) argues that Peirce accommodates a radical pluralism such that his thought is far more in line with that of

Thomas Kuhn than is ordinarily thought. She recognizes that the notion of an ultimate truth that inquirers will agree upon is ““a regulative principle, an intellectual hope”” (Rosenthal 1994, p. 12; quoting Peirce 1887–1888/1992, p. 275). In interpreting Peirce’s intentions, she notes that he says he can not prove that this will indeed occur (ibid., p. 12; 1896/1998, CP 3.432). From this she explains that it could well be the case that different paradigms and criteria for evaluating a theory could come about that jive with experience, and yet which are incommensurable with each other (ibid., p. 17). Rosenthal explains that as such, Peirce’s presentation of science accommodates a pluralism that is in line with Kuhn’s pluralism (ibid., p. 17–18). Rosenthal moreover argues that Peirce’s pluralism applies not only with regard to “divergent scientific worlds,” but also with regard to “divergent ways of life encompassing not just differing facts but differing goals, differing problems of importance, and differing criteria for resolving differences” (ibid.).

In interpreting Peirce’s intentions with his regulative idea of a truth upon which all inquiry converges, Rosenthal does not sufficiently take into account that³³ Peirce says that were there to be no truth upon which inquiry would converge, that this would lead to despair (1887–1888/1992, p. 275). It seems Rosenthal’s objective is to make Peirce more palatable to those persuaded by Kuhn’s thesis (ibid., p. 13). Rosenthal’s charge regarding Peirce is important and deserves a thoughtful and thorough response. Unfortunately, an adequate response to her with regard to the realism of Peirce’s philosophy of science is beyond the scope of this dissertation. This dissertation aims, however, to at least address some of the themes crucial to her argument. A primary goal of the first three chapters is

³³ To be clear: Rosenthal does mention this (Rosenthal 1994, p. 12), but does not treat the point adequately.

to understand the nature of Peirce's realism and his notion of truth and its role as a regulative hope. It will be argued that Peirce's understanding of truth was his attempt to respond to the extreme skepticism he saw in the philosophical fallout of Kant and Hegel. His formulation was meant to motivate the sciences and philosophy to pursue the truth and understanding that—he hoped—is attainable by the human mind. As we will also see, Peirce made clear that he understood the precarious nature of his formulation, and attempted different ways to prove and metaphysically ground this interpretation.

While this study will only be able to briefly treat the question of the nature of Peirce's realism, it aims to more definitively treat Rosenthal's argument about Peirce's pluralism where it veers into more political terrain. On the one hand, in seeming agreement with one aspect of Rosenthal's argument, Peirce in no way indicates that he expects that communities' norms might ever be purified and reconciled—that such a thing is possible or desirable at the political or practical level. On the other hand, Peirce thinks that unbiased researchers will be able to work with one another's ideas—across different times and places—to reach deeper understanding that aims at truth. Peirce clearly thought that philosophic truth was true for all humans, and was not dependent on time and place.

In support of Rosenthal's reading, Barbara Thyer-Bacon (2005) also sees a connection between Peirce's thought and Kuhn's (p. 323). In contrast, while Skagestad (1981) acknowledges some affinity between the thoughts of Peirce and Kuhn, he also sees an important difference. For both Peirce and Kuhn, Skagestad explains, the meaning of a particular scientific term at a particular time depends on the state of understanding of that time (Skagestad 1981, p. 127). On the essential point, though, Skagestad recognizes

that Peirce and Kuhn differ on the essential question of whether progress in science is arbitrary or rational.

What is controversial is only whether . . . changes are progressive or arbitrary. . . . Peirce held that scientific terms grow more precise through the progress of knowledge, hence their changes of meaning have a definite direction, that of greater precision. . . . Kuhn appears to deny that meanings change in the direction of increased precision, and his conclusion seems to be that the meanings of scientific terms change in an essentially arbitrary manner. (ibid.)

In other words, whereas Kuhn thought words change meaning arbitrarily, Peirce understood there to be a rational progression in scientific understanding (ibid.). This also appears to be Putnam's understanding of the difference between Peirce and Kuhn (Putnam 1990/2011, p. 337).

V. Dissertation Overview

Now that Peirce's thought has been given some context, we can proceed to examining his philosophy directly. The first three chapters of this dissertation examine Peirce's epistemology and aspects of his metaphysics. These chapters cover some of Peirce's early writings on semeiotics, his early writings on pragmatism, late writings on pragmatism, and an essay on cosmology. The fourth chapter of the dissertation examines Peirce's warning that theory and practice must be separate. To shed further light on Peirce's ultimate views about the relationship between philosophy and practice, the fifth chapter examines Peirce's views on the role of the university and a liberal arts education in a free republic.

CHAPTER 1

This chapter examines two of Peirce's well-known early epistemological writings: "Questions Concerning Certain Faculties Claimed for Man" and "Some Consequences of Four Incapacities," both published in the *Journal of Speculative Philosophy* in 1868. These essays explore the nature of knowledge, critique modern philosophy, and showcase Peirce's early theory of semeiotics. Peirce explains that "modern science and modern logic require us to stand upon a very different platform from" that of Descartes, the "father of modern philosophy" (1868b/1992, p. 28). Peirce attempts to replace Cartesian philosophy with his own framework. In Peirce's criticism of modern philosophy emerge key features of what will become known as pragmatism. It is worth closely examining these early works because they shed light on the nature of the problems that Peirce aimed for pragmatism to address.

In "Some Consequences of Four Incapacities," Peirce identifies key features of modern philosophy that are problematic and, by misleading inquirers into human knowledge, interfere with the pursuit of true understanding. To add further depth to the context, he contrasts these key features of modern philosophy with their scholastic counterparts—in other words, with those features of scholasticism that modern philosophy aimed to improve upon and replace. In his own project of undermining and replacing modern philosophy, Peirce does not return to scholastic philosophy, but his solutions take a turn in their direction. We see, in fact, something of a dialectical pendulum: problems with one school of thought yield solutions whose later problems

yield new solutions that swing closer to the original position in an improved way, and thus are closer to being able to home in on the truth of the matter. Let us explore the problems and solutions as Peirce presents them.

I. Scholasticism, Modern Philosophy, and Peirce's Proposal for a New Framework

Peirce explains that modern philosophy³⁴ aimed to “displace” scholasticism (ibid.). It begins with universal doubt³⁵—in contrast with scholasticism, which “never questioned fundamentals” (ibid.). Whereas scholasticism pointed to external standards—ultimate certainty “rested on the testimony of sages and of the Catholic Church”—modern philosophy “teaches that the ultimate test of certainty is to be found in the individual consciousness” (ibid.).³⁶ It replaces the “multiform argumentation of the middle ages”

³⁴ In “How to Make Our Ideas Clear,” Peirce provides a clear description of Descartes’s philosophical project, as well as a criticism of that project:

When Descartes set about the reconstruction of philosophy, his first step was to (theoretically) permit skepticism and to discard the practice of the schoolmen of looking to authority as the ultimate source of truth. That done, he sought a more natural fountain of true principles, and professed to find it in the human mind; thus passing, in the directest way, from the method of authority to that of apriority. . . . Self-consciousness was to furnish us with our fundamental truths, and to decide what was agreeable to reason. But since, evidently, not all ideas are true, he was led to note, as the first condition of infallibility, that they must be clear. The distinction between an idea *seeming* clear and really being so, never occurred to him. (1878/1992, p. 125)

³⁵ See, e.g., Descartes 1637/1998 §2.13–14, p. 8:

As regards all the opinions to which I had until now given credence, I could not do better than to try to get rid of them once and for all, in order to replace them later on.

³⁶ See, e.g., Descartes 1637/1998 §2.16, p. 9–10 :

The majority opinion is worthless as a proof of truths that are at all difficult to discover, since it is much more likely that one man would have found them than a whole multitude of people.

and 1641/1998 §4.62, p. 87:

Those matters that the intellect clearly and distinctly discloses to it, it plainly cannot happen that I err. . . . The perception is most assuredly true.

with a “single thread of inference depending often upon inconspicuous premises” (ibid.).³⁷ Finally, Cartesianism not only does not attempt to explain all facts, but even “renders” some “absolutely inexplicable, unless to say that ‘God makes them so’ is to be regarded as an explanation”³⁸; scholasticism, in contrast, “had its mysteries of faith, but undertook to explain all created things” (ibid.). Peirce explains, “in some, or all of these respects, most modern philosophers have been, in effect, Cartesians” (ibid.).

Peirce seeks to replace Descartes’s “four rules” for governing inquiry (Descartes 1637/1998 §2.18, p. 11)—and thereby the “spirit” of modern philosophy—with four new pillars (1868b/1992, p. 28–29). (1) Philosophic inquiry can not begin with complete doubt. (2) Agreement among a community of philosophers must replace the individual conscience as the standard of truth. (3) “Philosophy ought to imitate” the methods of “the successful sciences”; it ought to “proceed only from tangible premises which can be subjected to careful scrutiny” and “trust rather to the multitude and variety of its arguments than to the conclusiveness of any one” (ibid., p. 29). (4) Lastly, philosophy ought not to assume that there is something in nature that is “absolutely inexplicable”—

³⁷ See, e.g., Descartes 1637/1998 §2.18–19, p. 11:

To conduct my thoughts in an orderly fashion, by commencing with those objects that are simplest and easiest to know, in order to ascend little by little, as by degrees, to the knowledge of the most composite things. . . . Those long chains of utterly simple and easy reasonings that geometers commonly use to arrive at their most difficult demonstrations had given me occasion to imagine that all the things that can fall within human knowledge follow from one another in the same way.

³⁸ See, e.g., Descartes 1641/1998 §4.55, p. 82:

For since I know now that my nature is very weak and limited, whereas the nature of God is immense, incomprehensible, and infinite, this is sufficient for me also to know that he can make innumerable things whose causes escape me. For this reason alone the entire class of causes which people customarily derive from a thing’s “end,” I judge to be utterly useless in physics.

an “unanalyzable ultimate” (ibid.). These pillars follow from the epistemological examination of this essay and of the earlier “Some Consequences of Four Incapacities.” We will explore that examination below. Let us first notice, though, the evident spirit of scholasticism in Peirce’s pillars.

Peirce’s call to return to analyzing the commonsense experience of the world—to approaching the world as humans experience it and moving away from the starting point of complete (and feigned) doubt—appears to be a return to the scholastic entry point to philosophy. (To this end, we will see that Peirce argues for scholastic realism—the reality of generals and potentiality as a mode of being—against the nominalism of modern philosophy.) It is also easy to see the similarity with scholasticism in Peirce’s desire for philosophy to, once again, aim at explaining all observed things, and to not retreat to the assumption that there is some “absolutely inexplicable, unanalyzable ultimate” (ibid.). The spirit of scholasticism, as Peirce understands it, is similarly evident in his recommendation that conclusions be based on a “multitude and variety” of arguments that form “a cable whose fibres . . . are sufficiently numerous and intimately connected,” rather than “a single thread of inference depending often upon inconspicuous premises” (ibid., p. 28–29). In these respects, Peirce is not only akin to the scholastics, as he seems to understand himself to be, but also to the ancients.

Perhaps less obvious—or, at least, more surprising—is the similarity between Peirce’s characterization of the scholastic test of certainty and the one he proposes. For both, truth has a communal nature rather than a personal or individualistic one. Peirce explains that his proposed standard—agreement among the “disciplined and candid minds” of the “*community* of philosophers”—aims to correct the individualistic

“Cartesian criterion, which amounts to this: ‘Whatever I am clearly convinced of, is true’” (ibid., p. 29). Peirce explains that a standard of truth “found in the individual consciousness” makes “single individuals absolute judges of truth” (ibid.). The result of this is a complete lack of consensus in the field: “metaphysicians will all agree that metaphysics has reached a pitch of certainty far beyond that of the physical sciences;—only they can agree upon nothing else” (ibid., p. 28–29).³⁹ In other words, with the potential of many claims to truth, this method provides no guidance for determining an absolute claim to truth. That disputes abounded among those who investigate philosophy was one of the problems that prompted Descartes to embark on his philosophical project in the first place:

Concerning philosophy I shall say only that, seeing that it has been cultivated for many centuries by the most excellent minds that have ever lived and that, nevertheless, there still is nothing in it about which there is not some dispute, and consequently nothing that is not doubtful, I was not at all so presumptuous as to hope to fare any better there than the others. (Descartes 1637/1998 §1.8, p. 5).

Descartes’s project has thus not fared any better—according to its own criterion—than that which it sought to replace.

Peirce’s proposed new standard—agreement among the “disciplined and candid minds” of the “*community* of philosophers” (1868b/1992, p. 29)—aims to correct the lack of consensus. Peirce claims to base his solution on the method of “the physical sciences,” where a theory is kept on “probation” until those in the science community reach agreement about it, after which point “the question of certainty becomes an idle one,

³⁹ As we saw in the introduction, Peirce shares this complaint about the lack of consensus in metaphysics with Kant (Kant 1787: Bxv; 2003 p. 21).

because there is no one left who doubts it” (ibid.). Truth then, is not decided by the individual alone, nor is it meant for the individual alone; the individual can only take part in the philosophic community’s search for truth. Peirce’s position here is an inversion of the Cartesian position that “it is much more likely that one man would have found [truths] than a whole multitude of people” (Descartes 1637/1998, §2.16, p. 10).

While Peirce claims to base his proposed method on that of the physical sciences, there are important parallels between his method and that of the scholastics. For the scholastics, as Peirce explains it, the test of certainty was also of a communal nature—it “rested on the testimony of sages and of the Catholic Church” (1868b/1992, p. 28). In other words, for the scholastics truth also consciously rested on claims and testimony of others; it was not derived, or determined, by the individual alone. In a subsequent essay, which we will explore more fully in the next chapter, Peirce further makes clear the parallel between his standard and that of the scholastics. He explains there that the view that “there is a general *drift* in the history of human thought which will lead it to one general agreement, one catholic consent” is more in harmony with the notion of an “infallible Church” and would fit better in “the Middle Ages than in Protestant or positivist times” (1871/1992, p. 90).

II. Epistemological Underpinnings of Peirce’s New Framework

We will now turn to Peirce’s efforts to undermine Cartesian assumptions about man’s cognitive powers, and then trace out the consequences of his denials, to better understand how Peirce arrives at his new platform. At the heart of Descartes’s project is his claim that man has certain innate ideas—of his own existence and of the existence of

a perfect God (1641/1998 §4.51–52, p. 80). In “Questions Concerning Certain Faculties Claimed for Man,” Peirce explores how we acquire knowledge: whether our knowledge is rooted, ultimately, in our external experiences in the world; or whether we have a separate knowledge of our internal world, or power of intuition. Applying Occam’s razor to the questions at hand—in other words, discarding more complicated explanations when a simpler one will suffice—Peirce demonstrates that our knowledge is entirely built upon and comprised of thoughts we develop through our experience in the world; there is no justification for positing a separate, internal power of intuition. New thoughts build on previous thoughts and our continuing experiences. We can have no cognition about what is not experienced in the world—about the incognizable.

From his exploration of the origins of our thoughts, Peirce also derives a suggestion about the purpose of thought. He concludes that the development of thoughts tells us about their function, their “essence”: to relay information about previous experience for the development of future thoughts. All thoughts, in other words, are signs.

Peirce’s critical examination yields these probable propositions. He acknowledges in “Some Consequences of Four Incapacities,” however, that he has not proved them to be “certain” (1868b/1992, p. 30). To strengthen their likelihood, Peirce proposes to “bring them to a further test” and “trace them out to their consequences” (ibid.). This second essay thus illustrates what Peirce has in mind when he calls for philosophy to “trust . . . to the multitude and variety of . . . arguments” (ibid., p. 29). A concern for the consequences of a proposition, moreover, seems similarly to be in the spirit of “imitat[ing] the successful sciences” (ibid.).

Perhaps also in a conscious attempt to imitate the successful sciences, Peirce's arguments in both of these essays takes the form of a collection of multiple proofs, where each proof provides support to later proofs. In "Questions Concerning Certain Faculties Claimed for Man," Peirce uses the metaphor of an inverted triangle being dipped into water to illustrate the process by which our knowledge of a thing increases. In fact, his writings—in these two essays especially—present their arguments by a similar process, with each layer of arguments following from what came before, and in turn providing support for the arguments of the layer that follows. Because of the mutually reinforcing and dependent nature of Peirce's arguments, they do not lend well to simple, systematic reproduction. What follows is an attempt to home in on the key elements of Peirce's arguments, while following his order of presentation. This allows us to see how Peirce builds the different layers of his proof.

a. Faculty of Intuition

In the first of these essays, Peirce begins undermining the notion of innate ideas by attacking the faculty of intuition—a type of cognition that is not itself determined by a previous cognition, but rather “determined directly by the transcendental object” (1868a/1992, p. 12). Peirce compares this claimed faculty with the external authority of the scholastics: both serve as absolute standards which themselves need no justification.

In the middle ages, reason and external authority were regarded as two coordinate sources of knowledge, just as reason and the authority of intuition are now. . . . The credibility of authority was regarded by men of that time simply as an ultimate premise, as a cognition not determined by a previous cognition of the same object, or, in our terms, as an intuition. (ibid., p. 13)

Peirce raises the possibility that this internal authority might “meet the same fate, in the history of opinions, as that which external authority has met” (ibid.).

In an effort to kill the authority of this claimed faculty, which he sees to be dying already—“Can that be said to be absolutely certain which many sane, well-informed, and thoughtful men already doubt?” (ibid.)—Peirce tries to undermine the evidence he sees for it. That evidence amounts to, simply, that we “we seem to *feel* that we have it” (ibid., p. 12). To raise doubts about this feeling, Peirce cites “a variety of facts” (ibid., p. 18) that illustrate how we do not have clear understanding of how our cognitions arise. The quick hands and the crafty words of magicians easily deceive us, for example (ibid., p. 14). We have a blind spot on the retina that we are unaware of, as our intelligence fills in the holes it leave us (ibid., p. 15). It feels to us that we immediately intuit two dimensions of space, when in fact what we immediately see is “not a continuous surface, but a collection of spots” (ibid.). Time is similarly not immediately intuited, for “in an instant there is no duration and hence no immediate feeling of duration” (ibid., p. 17). The “conception of time,” rather, is helpful in “reducing to mediate simplicity” the complexity of “all the images . . . of sense and memory” in an impression (ibid.).

Peirce explains that these “variety of facts” are “most readily explained” by assuming that we have “no intuitive faculty of distinguishing intuitive from mediate cognitions” (ibid., p. 18). What he seems to mean is that things that appear to us as being directly perceived are actually mediated by the human brain, and only then, through a process of cognition, are they apprehended by the conscious mind. Moreover Peirce sees “no facts” that “require the supposition of the faculty in question” (ibid.). According to “the nature of proof,” it should thus be clear that “there are very strong reasons for

disbelieving the existence of this faculty” (ibid.). In other words, Peirce appears to be applying Occam’s razor to the matter at hand: because normal mental functioning can indeed account for the types of phenomenon here explored, there is no need to posit an additional cognitive function.

Let us note that, on this question of the power of intuition, Peirce neither disproves its existence, nor even claims to disprove it. He simply explains that the evidence comes down against its existence, by the rules of logic. Let us moreover note that Peirce explains in a footnote that his understanding of man’s comprehension of time and space is more in line with Kant than it might first appear: while Kant “makes space and time intuitions,” he at the same time acknowledges that “the apprehension of space and time results . . . from a mental *process*” (ibid., p. 17). Peirce explains that his own “theory is merely an account of this synthesis” (ibid.). In other words, he agrees with Kant’s presentation of how man apprehends time and space; only, he feels the need to move away from calling this process an intuitive one, and instead emphasizes the mental processes at work in our perception.

b. Intuitive Self-Consciousness

Peirce next takes aim at the Cartesian supposition that man has an intuitive self-consciousness: “a knowledge of . . . our personal selves . . . the recognition of my *private* self” (ibid., p. 18). Against Descartes, Peirce argues that man’s self-consciousness does not come before all his other knowledge, but rather rests on his experiences of the world. Self-consciousness is moreover a reflection of man’s ignorance rather than a bedrock of

knowledge. To reach this conclusion, Peirce sets out on a scientific examination of the matter, as guided by the rules of logic.

A consequence of the proposition that we have no “intuitive power of distinguishing an intuition from a cognition determined by others” is that it would not be “self-evident that we have . . . an intuitive faculty” of self-consciousness (*ibid.*). Thus he must determine “upon evidence” whether “self-consciousness can be explained by the action of known faculties under conditions known to exist,” or whether “an unknown cause for this cognition” must be supposed, and if so, whether “an intuitive faculty of self-consciousness is the most probable cause which can be supposed” (*ibid.*). Peirce thus appears once again to approach the question according to the demands of a logical proof—but one which, like modern science, takes into account probability in reaching its conclusions.

Peirce first points to the observation that young children do not appear to have self-consciousness. Kant observed that children do not use the word “I” until relatively late in their development, which “indicates an imperfect self-consciousness in them” (*ibid.*). Peirce argues that this observation points—to the extent that “it is admissible for us to draw any conclusion” on the matter—to the conclusion that younger children do not have self-consciousness (*ibid.*, p. 18–19). Adding this hypothesis to the observation that “children manifest powers of thought” at a “much earlier” age (*ibid.*, p. 19)—when they are aware of their bodies and begin to develop language, which they learn from other people—Peirce proposes the hypothesis that a child first develops self-consciousness by being made aware by others that his understanding of something was wrong.

He explains his hypothesis thus: When learning language, a child learns to yield to the opinion of those around him. “He begins to find that what these people about him say is the very best evidence of fact” (ibid.). This is so much the case that “testimony is even a stronger mark of fact than *the facts themselves*” (ibid.). By being made aware of his ignorance through his experiences, he learns to trust the testimony of others. Peirce gives the following example to illustrate what he has in mind:

A child hears it said that the stove is hot. But it is not, he says; and, indeed, that central body is not touching it, and only what that touches is hot or cold. But he touches it, and finds the testimony confirmed in a striking way. Thus, he becomes aware of his ignorance. (ibid., p. 20)

Peirce suggests that it is through his awareness of his ignorance that the child becomes aware of his “self”—a self that is ignorant (ibid.). And thus, “testimony gives the first dawning of self-consciousness,” and it is error that helps a man recognize himself from others (ibid.). “Ignorance and error are all that distinguish our private selves from the absolute *ego* of pure apperception” (ibid.). Man’s self-consciousness would thus not be a sign of certainty, but would be rooted in his awareness that he was in error, and moreover, that a community of men—those who corrected him of his error—would be his first acknowledged standard of certainty.

It is worth noting here the potential strength and problems that result from Peirce’s observation that “testimony is even a stronger mark of fact than *the facts themselves*” (ibid., p. 19). On the one hand, other people acting as a standard of our understanding can help move our understanding forward. It can also, as this remark suggests, act as a hindrance to our understanding of the world, of the facts. In the

“Fixation of Belief”—an essay that comes across as less democratic than does this essay—Peirce points out how strong of a grip others’ opinions have on one’s own opinions. He attempts, then, to entice those who care about truth and intellectual integrity to resist the “temptation to submit” their opinions to the authority of others (1877, EP 1 p. 122). These efforts point to the fact that Peirce recognizes that, while community is necessary for knowledge, it can at the same time be a hindrance to knowledge. Peirce’s comment here about the testimony of others overwhelming one’s perception of the facts is evidence that Peirce is already aware of this problem in this early work. We will continue to explore this issue.

With this, Peirce has presented a theory that accounts for the phenomenon using the existence of known faculties: “Thus we find that known faculties, acting under conditions known to exist, would rise to self-consciousness” (1868a/1992, p. 20). While Peirce does not claim to have proven that his theory is the true account of how self-consciousness arises in children, he does claim that his theory is far more likely than is “the supposition of a wholly peculiar faculty of the mind” (ibid.). Again, this seems to be so by the logic of Occam’s razor—that the simplest explanation is to be preferred over more complicated ones.

To drive the nail into the Cartesian coffin, as it were, Peirce then goes on to examine critically “the only argument worth noticing for the existence of an intuitive self-consciousness,” namely, that

We are more certain of our own existence than of any other fact; a premise cannot determine a conclusion to be more certain than it is itself; hence, our own existence cannot have been inferred from any other fact. (ibid.)

But this argument relies, according to Peirce, on “an exploded theory of logic”—specifically with regard to the second premise (ibid.). A conclusion can indeed be more certain than any one of the facts that supports it (ibid.). To illustrate this point, Peirce explains that a belief that an event occurred based on the testimony of twelve men will be stronger than will the belief of the event’s occurrence based on the testimony of any one of the twelve men in particular (ibid., p. 20–21). Similarly, “to the developed mind of man, his own existence is supposed by *every other fact*, and is, therefore, incomparably more certain than any one of these facts” (ibid., p. 21).

We see here that Peirce addresses the question at hand—whether or not man has an intuitive power of “self-consciousness”—from different angles. In this particular case, he sought to explore self-consciousness and see whether it could be explained by applying already accepted premises—in other words, by the “action of known faculties under conditions known to exist” (ibid., p. 18). For evidence, he used an observation already largely agreed upon—that children do not use the word “I” until relatively late. He then partakes in a phenomenological examination of the matter at hand, to hypothesize how indeed the conclusion we are after could be reached without positing extra premises. Finally, he sought to undermine the strongest argument he could find for the claimed faculty.

With this multi-pronged argument, Peirce concludes that “there is no necessity of supposing an intuitive self-consciousness, since self-consciousness may easily be the result of inference” (ibid., p. 21). This method of argument thus seems to illustrate what Peirce has in mind in “Some Consequences of Four Incapacities,” when he exhorts philosophy to “trust rather to the multitude and variety” of arguments rather “than to the

conclusiveness of any one”—in imitation of the “successful sciences in its methods” (1868b/1992, p. 29). By somewhat similar argument, Peirce next concludes that logic recommends that we presume against the existence of an “intuitive power of distinguishing between the subjective elements of different kinds of cognitions” (1868a/1992, p. 21–22).

c. Power of Introspection

Continuing his attack against Descartes’s notion of innate ideas and his “clear and distinct” standard, Peirce then tackles the question of whether “we have any power of introspection, or whether our whole knowledge of the internal world is derived from the observation of external facts” (ibid., p. 22). Peirce acknowledges that the perception of color is “partly determined by internal conditions”: “the sensation of redness is as it is, owing to the constitution of the mind; and in this sense it is a sensation of something internal” (ibid.). The object that one sees as red, though, is external to the mind (ibid., p. 23). Emotions, by contrast, appear to come about “not as predicates” of an external object, “and to be referable to the mind alone” (ibid.). Upon reflection, though, it seems emotions too are connected to external objects:

If a man is angry, his anger implies, in general, no determinate and constant character in its object. But, on the other hand, it can hardly be questioned that there is some relative character in the outward thing which makes him angry, and a little reflection will serve to show that his anger consists in his saying to himself, “this thing is vile, abominable, etc.,” and that it is rather a mark of returning reason to say, “I am angry.” In the same way any emotion is a predicate concerning some object. (ibid.)

Peirce extends this line of reasoning even further by comparing “the sense of beauty” and the “moral sense” with emotion in this respect: “Good and bad are feelings which first arise as predicates, and therefore are either predicates of the not-I” (ibid.).

d. Volition

The last type of internal mental process Peirce thinks he needs to account for is the sense of volition. He explains that volition is really simply “a power of concentrating the attention, of abstracting” (ibid.). This, too, can be “inferred from abstract objects” (ibid.). Thus these psychological facts—subjective qualities like color, emotion, moral judgment, and volition—all presuppose the existence of external objects, and we have no knowledge or experience of these things without those external objects (ibid.). There is thus “no reason for supposing a power of introspection,” and in consequence, “the only way of investigating a psychological question is by inference from external facts” (ibid.).

e. How We Do Think: Peirce’s Early Theory of Semeiotics

Peirce then moves from examining the mental functions men do not have, to trying to deduce how men in fact do think. In this deduction, the conclusions thus far reached act as supporting propositions. He begins by questioning whether men can think without signs. When we think about external facts, “the only cases of thought which we can find are of thought in signs” (ibid., p. 24). We have moreover just demonstrated that “only by external facts can thought be known at all” (ibid.). Thought can therefore only be cognized in signs (ibid.). If every thought is thus a sign, then “every thought must address itself to some other, must determine some other, since that is the essence of a

sign” (ibid.). Thus a long train of thought can be understood as a long train of signs interpreting and determining one another.

Peirce concludes, moreover, that because, as we have established, “all our conceptions are obtained by abstractions and combinations of cognitions first occurring in judgments of experience,” then there can be no conception—and thus no meaning—of something that does not occur in experience (ibid.). In other words, there can be no meaning to that which is “absolutely incognizable” (ibid.). Similarly, when one has the wrong conception of something, that conception is a wrong combination of true conceptions: “ignorance and error can only be conceived as correlative to a real knowledge and truth, which latter are of the nature of cognitions” (ibid., p. 25). To any cognition is thus paired “an unknown but knowable reality” (ibid.).

From these propositions, Peirce reaches the metaphysical conclusion that what is ultimately understood about something (though not necessarily what we understand of something at any moment) is, in fact, the essence of its being: “*cognizability* (in its widest sense) and *being* are not merely metaphysically the same, but are synonymous terms” (ibid.). This seems to be another way of saying that our knowledge can not go beyond a correct understanding of what we experience in the world. To speak of anything else—for example, of a *thing-in-itself* that exists beyond what we can encounter in our experience in the world—is simply to speak without meaning.

Peirce’s final task in his essay is to deny that there is any first cognition. He asks “whether there is any cognition not determined by a previous cognition” (ibid.). He uses the metaphor of an “inverted triangle . . . gradually dipped into water” to illustrate his main conclusion: that “cognition arises by a *process* of beginning,” rather than as an

absolute first cognition (ibid., p. 26–27). Like the inverted triangle becoming increasingly submerged as it is dipped into water, our knowledge of things deepens and becomes richer over time; our knowledge becomes exponentially greater over time.

III. Consequences of Peirce’s Epistemological Framework

In “Some Consequences of Four Incapacities,” as mentioned, Peirce tries to make more certain the probable propositions he has laid out. He proposes to trace out their consequences, treating each one as a “hypothetical premise” that builds on the others (1868b, p. 30). In his examination, Peirce quietly renames “propositions” to “principles” (ibid., p. 30 ff.), suggesting that the propositions that are to be examined have in fact already been proved. While he makes strong cases for his propositions, they are never proved in any fail-safe sense. Given Peirce’s admitted ambitions of replacing Cartesian philosophy with a new philosophical framework, such craftiness is not altogether surprising. In what follows, I attempt to make as much sense as I can of his multi-faceted arguments, but with a caution appropriate to understanding such an ambitious undertaking.

a. Consequences of there Being No Power of Intuition

Peirce begins drawing out the consequences of his first two propositions: that “we have no power of Introspection,” but rather “all knowledge of the internal world is derived by hypothetical reasoning from our knowledge of external facts”; and that “every cognition is determined logically by previous cognitions,” as “we have no power of Intuition” (ibid., p. 30). In other words, he wants to see what results from “put[ing] aside

all prejudices derived from a philosophy which bases our knowledge of the external world on our self-consciousness” (ibid.). Instead, he seeks to determine how much of our knowledge can be accounted for by assuming that all that passes within our mind derives from the hypotheses our mind unconsciously posits to make sense of what it observes in the external world (ibid.).

He explains he must determine the extent to which he can “reduce all mental action to the formula of . . . valid reasoning” (ibid.). This formula amounts to proceeding from premise *A* to conclude *B* “only if, as a matter of fact, such a proposition as *B* is always or usually true when such a proposition as *A* is true” (ibid.). We must determine the extent to which we can reduce mental action to this formula because this is the “class of modifications of consciousness” whose “existence is indubitable” and “whose laws are best known” (ibid.). Because its “knowledge comes from the outside,” it is also one that “closely follows external facts” (ibid.). If all mental action can be reduced in this way, then it is not logically necessary to assume any other mental faculties. Thus, by tracing out the consequences of a proposition, it appears Peirce means that he will seek to determine the extent for which his propositions can ultimately account.

In his claim that the existence of the mental process of valid inference is indubitable, Peirce is clear that he does not mean to suggest that the mind goes through a formal syllogistic process at all times that it takes in information. He explains that in fact he finds it “very doubtful” that a “conclusion—as something existing in the mind independently, like an image—suddenly displaces two premises existing in the mind in a similar way” (ibid., p. 30–31). He maintains, rather, that it is simply “a matter of constant experience” that if a man believes in certain premises—as evidenced by his willingness

to “act from them” and “say that they are true”—then “he will also be ready to act from the conclusion and to say that that is true” (ibid., p. 31). There is therefore something that seems to go on within man that is “equivalent to the syllogistic process” (ibid.). Experience thus provides strong evidence for the existence of this mental functioning, adding weight to the logical argument.

Continuing with his exploration of the formula of valid inference, Peirce identifies three types of inference that can account for all valid inference: deductive, inductive, or hypothetic (ibid., p. 33). The validity of a deductive inference “depends unconditionally upon the relation of the fact inferred to the facts posited in the premises” (ibid., p. 31). Induction and hypothetic reasoning fall under probable inference. Peirce describes induction as when “reasoning proceeds as though all the objects which have certain characters were known” (ibid., p. 32); or, in other words, which “assumes that that is true of a whole collection which is true of a number of instances taken from it at random” (ibid., p. 33). In the long run, this form of argument tends to yield “pretty correct conclusions from true premises” (ibid.). There is an inherent connection between induction and deduction:

The central characteristic and key to induction is, that by taking the conclusion so reached as major premise of a syllogism, and the proposition stating that such and such objects are taken from the class in question as the minor premise, the other premise of the induction will follow from them deductively. (ibid.)

In this observation, Peirce claims kinship with Aristotle (ibid.).

Hypothetic reasoning “proceeds as though all the characters requisite to the determination of a certain object or class were known” (ibid., p. 32). In other words, it can be understood as an argument that

proceeds upon the assumption that a character which is known necessarily to involve a certain number of others, may be probably predicated of any object which has all the characters which this character is known to involve. (ibid., p. 33)

It can be understood, in other words, as an inference of the minor premise from the major premise and conclusion of a deductive argument (ibid., p. 33–34); as reasoning “from consequent to antecedent” (ibid., p. 35).

All of this points to the fact that all inference “belongs to one genus” (ibid.). Each type ultimately consists of a conclusion that can be derived by arguments of two premises each, which imply no fact not asserted (ibid., p. 33–36). Thus an attempt to reduce all mental action to the form of valid reasoning amounts to an attempt to reduce all mental action to one single type:

All valid reasoning, therefore, is of one general form; and in seeking to reduce all mental action to the formulae of valid inference, we seek to reduce it to one single type. (ibid., p. 37)

That valid inference can be reduced to one general type apparently strengthens the proposition that we do not have a power of intuition because it seems that variations of one basic mental process can account for all that we know. In other words, one simple premise can account for all of our knowledge—a premise, moreover, for which there is much empirical support.

But men also reason falsely. Might other mental processes need to be posited to account for fallacious reasoning? Peirce identifies four classes of fallacious inferences:

(1) those that proceed from false premises; (2) those that are weak, though not illegitimate, inductions or hypotheses; (3) those that entail confusing one proposition with another; and (4) those that result from misapplying a rule of inference (ibid.). Any other type of false reasoning would have to result from a man drawing a completely irrelevant conclusion from true premises (ibid.). In the first of the types of fallacious inferences identified, either the reasoning proceeds validly from false premises, or its error is of one of the other three types (ibid., p. 38). The second type of fallacy, even if it results in a wrong conclusion, is still a “legitimate probable argument” and is therefore a valid inference (ibid.). The third type of fallacy would be due to a person reasoning that two types of things were alike in all respects because they were alike in some key respects; though this would be a weak argument, it is also a valid form of hypothetic probable thinking (ibid.). Fallacies of the fourth class are either fallacies of confusion—resulting from misunderstanding a rule of inference—or they result “from adopting a wrong rule of inference” (ibid.). In this case, the wrong rule of inference would in effect be a false premise, and therefore any conclusion that resulted would be a product of this false premise. Fallacious reasoning therefore does not pose a problem to Peirce’s theory that the process of valid reasoning can account for human knowledge, for even in such instances, we see that “the procedure of the mind conforms to the formula of valid inference” (ibid.).

In this discussion, Peirce makes another naturalistic argument in support of his reliance on syllogistic reasoning as being able to account for human knowledge. He explains that all men assent to the judgment of valid inference:

Experience shows that the calm and careful consideration of the same distinctly conceived premises (including prejudices) will insure the pronouncement of the same judgment by all men. (ibid.)

Calm consideration aids man in avoiding fallacious reasoning because it can help him take all facts into account, as well as remain calm and unaffected by “a passion in inferring that to be true which we wish were true, or which we fear may be true” (ibid., p. 37–38). Of the arguments in this essay, this naturalistic one appears to be the weakest. Certainly vast disagreements exist among a random sampling of the general population. Moreover, Peirce seems to be here substituting “calm and careful consideration” for the Cartesian “clear and distinct” standard; both standards are too vague to be helpful. Indeed, Peirce later backs away from this naturalistic argument, explaining that the truth of something is independent of what men are inclined to think—though not independent of what men are able to think.

b. Peirce’s Early Theory of Semeiotics, Continued

The next proposition whose consequences are to be drawn out is the third, that we can only think in signs: “whenever we think, we have present to the consciousness some feeling, image, conception, or other representation, which serves as a sign” (ibid., p. 38). A sign is a sign “*to* some thought which interprets it”; “*for* some object to which in that thought it is equivalent; and “*in* some respect or quality, which brings it into connection with its object” (ibid.) Peirce explains that we ourselves become a sign when we think (ibid.). He then traces out what it would mean if all thoughts indeed acted in this manner.

When we think, our thoughts address themselves to our subsequent thoughts.

Trains of thought follow “the law of mental association,” wherein “each former thought

suggests something to the thought which follows it” (ibid., p. 39). And while trains of thought may be interrupted, it does not mean they are ever “broken off altogether” (ibid.). When we combine this with our second principle—that there is no intuition or cognition not determined by previous cognitions—it follows that our understanding of a sign is never instantaneous but rather comes to “pass by a continuous process” (ibid.).

The thought-sign thus always stands for its external object (ibid., p. 39–40). The “representative function” of a sign lies not in any “real relation to its object,” however, but rather in its relation to thought. Thought exists only in the mind, and different thoughts are separated by time in the mind (ibid., p. 40). If we understand two thoughts as similar, we do so because they have been brought together by the mind in an act of hypothesis or judgment (ibid., p. 41).

We develop thoughts about metaphysical notions like “Being” and numbers by abstracting from the simple and immediate thoughts that pass before us. Comparison and negation are key to our ability to abstract.

All determination is by negations; we can first recognize any character only by putting an object which possesses it into comparison with an object which possesses it not. (ibid., p. 45)

The conception of “Being” does not arise, then, by observing a quality universal to all things. Rather, it arises through reflection on signs—on words and thoughts. We reflect that each subject has some predicate attached to it. That a predicate is attached to a subject bespeaks something true of the subject: “we imagine that a subject has something true of it merely because a predicate (no matter what) is attached to it,—and that we call Being” (ibid., p. 45). Thus the conception of Being amounts to a conception of a sign

(ibid.). Peirce explains that his position that “metaphysical conceptions are primarily and at bottom thoughts about words, or thoughts about thoughts” is not a new doctrine, but is rather the same as that of Aristotle and Kant: Aristotle’s “categories are parts of speech” and Kant’s “categories are the characters of different kinds of propositions” (ibid., p. 45–46).

Abstraction, or what Peirce also refers to as “Attention,” is “the power by which thought at one time is connected with and made to relate to thought at another time” (ibid., p. 46). Through an “emphasis . . . put upon one of the objective elements of consciousness,” attention affects our memory and therefore subsequent thoughts (ibid.). Our attention is stirred when we notice similarities or patterns in the simple thoughts that pass before us: “Attention is roused when the same phenomenon presents itself repeatedly on different occasions, or the same predicate in different subjects” (ibid.). It is thus an act of induction (ibid.).

The inductive conclusions of our attention affect our nervous system; they form “habits, or nervous associations” in us (ibid.).

A habit arises, when, having had the sensation of performing a certain act, *m*, on several occasions *a*, *b*, *c*, we come to do it upon every occurrence of the general event, *l*, of which *a*, *b*, and *c* are special cases.

Our voluntary actions result from our habits, just as our “instinctive actions result from our original nature” (ibid., p. 47). Implicit in this is a point that becomes a key feature of the pragmatism of Peirce’s 1878 essay, “How to Make Our Ideas Clear”: our habits of acting contain information about our unconscious inductions, so that if we respond in the

same way to different thoughts, it means that our mind has in actuality understood those two thoughts in the same way. For now, Peirce only hints at this:

The emotion is a sign and a predicate of the thing. When a thing resembling [a thing with which we have had experience and made judgments already] is presented to us, a similar emotion arises; hence, we immediately infer that the latter is like the former. (ibid., p. 51)

In other words, our instinctive responses bespeak subconscious induction.

c. Scholastic Realism

From this understanding of the role abstraction plays in making sense of the immediate sensations experienced by the mind, Peirce makes his case for scholastic realism—which entails defending the existence of generals and denying that there is a “thing in itself” to which we do not have access—against the nominalism of modern philosophy. Peirce cites Berkeley, the “most eminent expounder of the doctrine” to illustrate the nominalist position (ibid., p. 47). Berkeley explains that we have no image of a general man, but rather of only a particular man:

the image of a man “must be either of a white, or a black, or a tawny; a straight, or a crooked; a tall, or a low, or a middle-sized man.” It must be of a man with his mouth open or his mouth shut, whose hair is precisely of such and such a shade, and whose figure has precisely such and such proportions. (ibid.; Berkeley 1710, section 10 of introduction)

Peirce agrees that our image of a man has to be of a man with particular characteristics. He explains that similarly, contra Locke, an image of a triangle has to be “either of an obtuse-angled, right-angled, or acute-angled triangle” (1868b/1992, p. 47; in reference to Locke 1689, book IV, ch. 7, §9).

The key, though, is to recognize that the images in our minds are not “*true*” representations (1868b/1992, p. 47). To illustrate, he points out that in your memory of an object—a red book, for example—you will not be able to long hold on to the precise shade of red the book is, but you will “carry away . . . the *consciousness that [you] could recognize it*” (ibid., p. 47–48; emphasis in original). What this illustrates is that Hume’s position that memory is simply a weakened version of sight—that their difference lies in “degrees of force and vivacity” (1868b/1992, p. 47; Hume 1748, sec. 2.)—is wrong. In fact, as we observe things, we are abstracting; we do not notice all of the details of a horse at any one time. Rather, we observe a horse in its entirety.

The senses are abstracting mechanisms by nature. Sight can only determine colors and forms, but nothing of taste or sound (1868b/1992, p. 50). The images that we perceive are in fact judgments that we make. And they are connected in the mind as signs, according to the principles of resemblance, contiguity, and causality (ibid.).

Generals are real (ibid., p. 53). Since “man” is true of something, that which “man” means is real (ibid.). The nominalist would have to admit that “man” is “truly applicable to something”; only, “he believes that there is beneath this a thing in itself, an incognizable reality” (ibid.). The nominalist’s best argument is that “there is no man unless there is some particular man” (ibid.). Peirce, however, agrees with Duns Scotus:

Although there is no man of whom all further determination can be denied, yet there is a man, abstraction being made of all further determination. There is a real difference between man irrespective of what the other determinations may be, and man with this or that particular series of determinations. (ibid.)

This difference is of course only relative to the mind and not in the thing in itself. But insisting that there is a thing in itself, à la Occam (and Kant), in fact begs the question, for it assumes “that reality is something independent of representative relation” (ibid.). In fact, the scholastic realist maintains that there is “no more recondite reality than that which is represented in a true representation” (ibid.). Thus we see that a defense of scholastic realism follows from Peirce’s theory of signs.

d. Reality and What Is Cognizable

The last “principle” that Peirce explores the consequences of in this essay is his fourth: that the absolutely incognizable is absolutely inconceivable. Because all words are signs that convey meaning for future action, a word that has no conception attached to it—in other words, the “absolutely incognizable”—has no meaning (ibid., p. 51–52). What is “real” must be “cognizable in some degree” (ibid., p. 52). Peirce goes on to explore the conception of “reality” that his propositions lead to.

From what we have gathered from the examination thus far, we can say that the cognitions we have at any given time are products of our previous cognitions; they “have been logically derived by induction and hypothesis from previous cognitions which are less general, less distinct, and of which we have a less lively consciousness” (ibid.). These earlier cognitions were themselves derived from even earlier cognitions, “and so on back to the ideal first, which is quite singular, and quite out of consciousness” (ibid.). Herein lies the actual “thing-in-itself”—an impression of something that exists simply, before the mind worked its abstracting powers on it. Even this impression is still relative to the mind, of course, as it is dependent on the senses and the mind’s recognition (ibid.).

From this process of the development of cognitions—“this infinite series of inductions and hypotheses,” emerge cognitions that are true and those that are false, in other words those “whose objects are *real* and those whose objects are *unreal*” (ibid.).

It seems for the reasons stated earlier that we can only have a notion of a concept through its negation. The conception of “the real” must have first occurred to a man when he “discovered that there was an unreal, an illusion,” and corrected himself (ibid.). The distinction here would be between a meaning “relative to private inward determinations” and one which “would stand in the long run” (ibid.). Reality, then, points away from one’s own private understandings, and to what will withstand examination and be assented to by all who inquire:

The real, then, is that which, sooner or later, information and reasoning would finally result in, and which is therefore independent of the vagaries of me and you. (ibid.)

Thus, the very notion of reality “essentially involves the notion of a COMMUNITY” (ibid.). Reality is that “which, at a time sufficiently future, the community will always continue to reaffirm,” while unreality is that “which, under the same conditions, will ever after be denied” (ibid.). By the same token, if the falsity of a proposition is not discoverable, then its error is in effect “incognizable,” which means that the proposition indeed contains “absolutely no error” (ibid.).

Reality, then, is “what may finally come to be known to be in the ideal state of complete information”—a state ultimately determined by the agreement of “the community” (ibid., p. 54). Knowledge of reality is thus attainable:

There is nothing, then, to prevent our knowing outward things as they really are, and it is most likely that we do thus know them in numberless cases, although we can never be absolutely certain of doing so in any special case. (ibid., p. 52)

Pointing to this future knowledge, thought—or signs—serves the purpose of addressing future thoughts and signs (ibid., p. 54). In a sense, then, thought has only “potential existence” as it is dependent “on what is to be hereafter . . . on the future thought of the community” (ibid., p. 54–55).

e. Individual Identity

Following the same theme of knowledge through negation, it is only through his being made aware of his own “ignorance and error” that the individual man is made aware of his existence as separate from that of his fellow men. The extent to which he is separate from his fellow men, in other words, is only merely as a negation (ibid., p. 55). Peirce concludes his essay by quoting Shakespeare:

This is man,
proud man,
Most ignorant of what he’s most assured,
His glassy essence. (Shakespeare 1604, 2.2.117–20)

Both essays thus conclude by emphasizing man’s ignorance and, when it comes to knowledge and understanding, his insignificance as an individual in contrast to the power of the body of men.

Concluding his essay, Peirce explores in what the reality of mind consists. Man’s consciousness is comprised of signs resulting from inference, as we have seen (ibid.).

This is its “phenomenal manifestation” (ibid.). We must thus understand the mind to be a “sign developing according to the laws of inference” (ibid.). Man’s entire thought is thus what he himself is (ibid., p. 54). This is what is consistent about him, and thus in what his identity consists (ibid.). Man and words—both signs, ultimately—“reciprocally educate each other; each increase of a man’s information involves and is involved by, a corresponding increase of a word’s information” (ibid.).

In summary, through his logical examination and exploration of the phenomenon of the development of knowledge, Peirce deduces the parameters of notions like “truth,” “reality,” and “Being.” Knowledge, and thus meaning, is inherently human—it can not go beyond or be outside of the human mind’s mediation. Thus to speak of something beyond the realm of human mediation is to speak in gibberish, for we could have no conception of what such a notion even means. The extent of what we can know is inherently limited by the mind’s mediation; the community of men, using their information and reasoning in the long run, is supposed to represent the limits which the human mind can reach. Thoughts, as signs, serve the purpose of informing future thoughts and signs; they are like steps on the ladder of knowledge.

IV. Summary

Let us return to Peirce’s new philosophical platform and examine its connection to his epistemological investigation. Peirce’s first pillar is that “we cannot begin with complete doubt,” but rather we must approach the world as we actually experience it: “We must begin with all the prejudices which we actually have when we enter upon the study of philosophy” (1868b, p. 28–29). He explains Cartesian skepticism is “mere self-

deception,” as our prejudices “are things which it does not occur to us *can* be questioned” (ibid., p. 29). Thus he exhorts his readers, “Let us not pretend to doubt in philosophy what we do not doubt in our hearts” (ibid.).

Now that we have explored Peirce’s epistemological examination, we see what is behind this position. Knowledge does not develop in a straight, clear manner; rather, it develops in a process of experiences—with the mind, often subconsciously, making increasing sense of the data encountered by the senses—and as bolstered by the opinions of others. Because of this process and the mutually dependent and reinforcing nature of our thoughts, there was never a time or point where a first or original thought occurred. We can therefore not imagine ourselves back to such a point—nor does it make sense to, considering the experiential and social nature of thought. Descartes’s project to “raze everything to the ground and begin again from the original foundations” (Descartes 1641/1998 §1.17, p. 59) is thus wholly misdirected.

Peirce’s second pillar is that the standard of certainty ought to be the consensus of the community of philosophers, and not individual consciousness (1868b, p. 28–29). In this suggestion Peirce explains he is explicitly taking the lead from modern science, where

when a theory has been broached, it is considered to be on probation until . . . agreement is reached. After it is reached, the question of certainty becomes an idle one, because there is no one left who doubts it. (ibid., p. 29)

Given the social nature of truth and inquiry, the individual, moreover, does not seek truth for himself, but rather for the community of philosophers: “We individually cannot

reasonably hope to attain the ultimate philosophy which we pursue; we can only seek it, therefore, for the *community* of philosophers” (ibid.).

Peirce’s investigation into human knowledge supports this practice, for it reveals—or, really, hypothesizes—that we come to understanding through necessarily social avenues. We develop notions of “the real,” and even our own selves, by recognizing the difference between our private opinions on a matter and those of other people, and the confirmation of the correct opinion through experience—for example, with a hot stove. The notions of reality and of a community of philosophers thus point to what is independent of the “vagaries” and prejudices of individuals, and rather toward what will be agreed upon by all men in the long term (ibid., p. 52). It is this community, thought of in the long run, which harnesses the powers of human understanding, and thus which can be understood as setting the limits of what is available to man’s understanding.

All that said, Peirce seems a bit too relativistic in what he says about the conclusions of community here. Later on, he emphasizes the provisional nature of any scientific hypothesis or theory. He moreover makes clearer later that the notion of community is valuable because it points to a reality external to the individual, though not independent of all individuals or of the human mind. Here, Peirce makes it sound like a mere consensus in a group of scientists is sufficient to prove a theory: “After it is reached, the question of certainty becomes an idle one, because there is no one left who doubts it” (ibid., p. 29). It is most likely the case that these excesses in Peirce’s treatment are rooted in his explicit desire to undermine Cartesianism, which was beset with idle doubts and moreover lacked a clear-cut standard for disregarding outlandish claims.

These two concerns make sense of Peirce’s sanguinity with regard to the consensus of

scientists, as well as his conclusion of this discussion: that “if disciplined and candid minds carefully examine a theory and refuse to accept it, this ought to create doubts in the mind of the author of the theory himself” (ibid., p. 29). We will pay attention to Peirce’s continued treatment of the matter as we explore his later thought.

Peirce’s third pillar is that philosophy ought to imitate science in two further respects: its premises should be “tangible” and capable of being “subjected to careful scrutiny,” and moreover, philosophical inquiry ought to “trust rather to the multitude and variety of its arguments” rather than to the “conclusiveness of any one” (ibid.). These two points are linked to the reasons behind the first and second pillars discussed above. The multifaceted character of the roots of knowledge seems to be behind the latter point: our knowledge results from a mixture of our experiences, our mind’s interpretation of our experiences, and others’ opinions. A “multitude and variety” of arguments, then, would seem to have the most potential at uncovering reality because it will best imitate the process by which knowledge develops—though in a purified or improved way. Because knowledge does not develop in a clear and straight line, simple and straightforward arguments alone will not uncover true understanding. The first point of this pillar similarly seems connected to the fact that knowledge is rooted in experience as well as others’ opinions—only tangible premises, capable of being “subjected to careful scrutiny,” speak to the experiential and social nature of knowledge. Like with the first two pillars, both points come across as direct attacks on Descartes, whose “Meditations” are filled with single threads of thought that end in the “proof” of such matters as the existence of a perfect God (Descartes 1641/1998 §3.51, p. 80). Peirce’s epistemological investigation in these two essays does not so much prove the necessity of this premise,

but rather—with its many logical, empirical, and phenomenological arguments—seems to illustrate its implementation, while at the same time providing reasons for itself.

Peirce's last pillar, that no fact can be assumed to be “absolutely inexplicable,” is rooted in his treatment of signs. He explains that such an assumption can not be taken for granted but would have to be reasoned to:

Every unidealistic philosophy supposes some absolutely inexplicable, unanalyzable ultimate; in short, something resulting from mediation itself not susceptible of mediation. Now that anything *is* thus inexplicable can only be known by reasoning from signs. But the only justification of an inference from signs is that the conclusion explains the fact. To suppose the fact absolutely inexplicable, is not to explain it, and hence this supposition is never allowable.

This point also seems connected to our observations about how knowledge develops, and recognizing reality as that which the mind of man—through a community of philosophers—can ultimately uncover. Thus through these channels of logic and his realism does Peirce undermine this tenet of modern philosophy, and return to the scholastic (and classical) attempt to seek an explanation for all things.

CHAPTER 2

In the epistemological examinations of 1868, Peirce begins setting the stage for a new philosophical foundation that will replace Cartesianism, as “modern science and modern logic require” (1868b/1992, p. 28). Of the pillars of the platform that he sets forth, the most important seem to be that philosophic inquiry can not start with complete doubt, but rather must approach the world as men actually approach it; and that truth can not be considered to be a private matter, but rather that universal truth must be available to all who investigate it (*ibid.*, p. 28–29). The first of these pillars is supported by Peirce’s suggestion that knowledge develops as a result of a combination of our experience in the world and others’ testimony; there was never a time or point where a first or original thought occurred. There is no clear demarcation between us knowing something and us not knowing something; rather knowledge about concepts develops as a result of a gradual process, and continues to develop throughout our conscious lives. The second pillar is connected to this point: others’ testimony plays an integral role in the formation of our knowledge. Because knowledge is inherently communal, investigation ought to be a communal act, and claims must be persuasive to other men.

Peirce’s investigation leaves us with many questions, chief among which are who comprises the community by which we judge what is true, as well as whether consensus among men is all that can be understood as the truth, or reality. In other words, does Peirce think—as James apparently does⁴⁰—that truth is constructed? Or does he

⁴⁰ See, e.g., discussion of James 1907 and 1909 in Introduction.

understand truth to be uncovered? What is the nature of truth or reality in Peirce's thought?

We are also left with the question of the nature of the relationship Peirce understands science and philosophy to have. On the one hand, Peirce says modern science requires a new philosophical foundation. He then, however, proceeds to propose a philosophical platform that is itself based on modern science. Is Peirce suggesting that modern science needs philosophical validation, which Cartesian philosophy can not provide? Or is modern science sufficiently valid, only incapable of providing insight on all questions—specifically those in the terrain of philosophy? Is philosophy leading modern science or taking the lead from it; what does philosophy bring to the table?

With this as the backdrop, we will examine Peirce's continued epistemological development in his early articulations of pragmatism. In this chapter we will explore the following essays: "Grounds of Validity of the Laws of Logic: Further Consequences of Four Incapacities" (1969); Peirce's review of *The Works of George Berkeley* (1871); "The Fixation of Belief" (1877); and "How to Make Our Ideas Clear" (1878). The themes that emerge from these essays are that our common sense perceptions are to be trusted; belief and doubt are the essential stages of inquiry, and bespeak the purpose of thought; reality ought to be understood alternately as that which the community ultimately agrees on, and that which is external to man; reality is an assumption crucial for rational inquiry, and therefore justified by reason; and the method of science is superior than alternative methods for uncovering reality, in other words, truth. Underlying these themes is the assumption or assertion that reason is an end in itself. Through our examination of these

themes, we will better understand Peirce's philosophical project and the problems it aims to address.

I. "Grounds of Validity of the Laws of Logic" (1869)

The "Grounds of Validity of the Laws of Logic: Further Consequences of Four Incapacities" (1969), like the two 1868 essays we looked at in the previous chapter, was published in the *Journal of Speculative Philosophy*. We are exploring it in this chapter rather than the previous one because its themes are more directly connected to those of the three other essays of this chapter than they are with the previous two essays. In the "Grounds of Validity," Peirce addresses questions concerning the validity of logical argument, and what lays at the foundation of inductive reasoning. We will explore some of the essay's key insights: a confirmation that logic's validity lies in its ability to ensure consistency of meaning, and not in human psychology; an acknowledgement that logical proof can not yield conclusions that are "beyond the possibility of a doubt" (1869/1992, p. 60); induction and probable reasoning are not successful because nature is regular, because the matter is quite the opposite—nature is not regular; and finally, that an "infinite hope" lies at the bottom of our efforts to rational action (ibid., p. 82). We will briefly explore his points below.

a. Logic, Epistemology, and Peirce's Answer to Skepticism

In the previous essays as well as in this essay, Peirce seems to interweave logical and naturalistic arguments to support the validity of syllogism. In this essay, though, Peirce at least differentiates the study of formal logic from that of psychology. Formal

logic is concerned with the syllogism, which elucidates “the relation of . . . different judgments concerning the same thing” (ibid., p. 63). In other words, it can tell us

that if facts capable of expression in such and such forms of words are true, another fact whose expression is related in a certain way to the expression of these others is also true. (ibid.)

It is not, in contrast, supposed to “represent the mind” (ibid.). It is constrained by its own rules, and is not influenced by how men generally think. Formal logic can tell us nothing about “the relation between syllogism and thought”; that is the purview of “psychology” (ibid.). The validity of logic can not rest on the grounds that Peirce suggested earlier—that men tend to act in ways that suggest they agree with syllogistic reasoning.

Consistency is its sole standard.

Logical proof can furthermore not prove anything “beyond the possibility of a doubt” (ibid., p. 60). This is a “very ancient” criticism of logic, Peirce explains (ibid.). There is much that is taken for granted in a proof: A proof “rests on premises which themselves equally require proof, which again must rest on other premises, and so back to infinity” (ibid.). There is thus “no argument” that “could be legitimately used against an absolute sceptic” (ibid.). In other words, proofs do not promise absolute certainty.

Nonetheless, Peirce does not think that such absolute skeptics really exist. He attacks those who claim that knowledge is not possible by explaining that their behavior reveals their true beliefs. Absolute skepticism would entail doubting every inference, but “every exercise of the mind consists in inference,” and there can be “no intelligent beings in that condition” (ibid., p. 56). In truth, “there are no such beings as absolute sceptics” (ibid.). The actions required for daily living belie any professed absolute skepticism; by

living in the world, a man shows that he does not live with complete doubt. Peirce explains that he intends to address men as they approach the world, not as “absolute sceptics” or “men in any state of fictitious doubt whatever” (ibid.).

b. The Theory of Reality as the Key to Philosophy

The possibility of inductive reasoning is a remarkable thing—how “we can know what we have not experienced!” (ibid., p. 75). Though “probable arguments sometimes fail,” “in the long run” inductive reasoning proves to be “approximately correct” (ibid., p. 77). For over time, “our errors balance one another” (ibid.). It is “magical” that “by examining a part of a class we can know what is true of the whole of the class, and by study of the past can know the future” (ibid., p. 75).

How is inductive reasoning possible? Natural selection may account for man’s ability to reason inductively; “it is absolutely essential to the preservation of so delicate an organism as man’s” (ibid.). This explanation, however, does not address the more fundamental question of how inductive or probable reasoning is even possible. This is not a question about the human mind, ultimately, but about nature (ibid.). This question is, moreover, “the lock upon the door of philosophy” (ibid., p. 78). It is antecedent to Kant’s question of the *a priori* possibility of synthetical judgments, which Kant considered the “central question of philosophy” (ibid.).

The “usual reply” to this question, Peirce explains, is John Stuart Mill’s answer that “nature is everywhere regular” (ibid., p. 75, 76–77). But, Peirce objects, nature is in fact not regular (ibid., p. 75–76). “It is true that the special laws and regularities are innumerable; but nobody thinks of the irregularities, which are infinitely more frequent”

(ibid., p. 75). True facts are indeed related to each other, but “the immense majority of these relations are fortuitous and irregular” (ibid.). Thus how can it be that we can think that regularity exists, and moreover, that man is likely to uncover it?

Peirce explains that “the validity of induction depends simply upon the fact that the parts make up and constitute the whole” (ibid., p. 79). What is required for induction to be valid, then, is simply for there to be a reality (ibid.). We have distinguished reality from unreality as that to which the community of men would agree to, in contrast to a matter apparent to you alone; this is connected to the communal nature of knowledge (1868b/1992, p. 52). Thus anything that “affects all men”—even an illusion—is real (1869/1992, p. 80). If anything at all exists, then there is reality (ibid.). After a long enough time, “a sufficiently long succession of inferences from parts to whole will lead men to knowledge of” the whole (ibid., p. 79). If there was no nature but rather an “unreality” whereby “the order of things (as they appear in experience), would . . . undergo a revolution” as men uncovered them—for example, by divine action—then such an unreality would also be able to be uncovered through induction (ibid., p. 79–80).

Peirce acknowledges though that there is no guarantee that the use of induction will ultimately yield true understanding. We have no reason to think that consciousness should survive for the sufficiently long term.

There cannot be a scintilla of evidence to show that at some time all living beings shall not be annihilated at once, and that forever after there shall be throughout the universe any intelligence whatever. (ibid., p. 82)

Ultimately, our efforts to seek true understanding rest not on reason or knowledge therefore, but rather on an “infinite hope . . . of success” (ibid.).⁴¹ It is thus only a hypothesis to suppose that knowledge is possible. But it is a hypothesis “rigidly demanded by logic” and not contradicted by facts. It is justified because of “its indispensableness for making any action rational” (ibid.).

c. Analysis

Even with this important acknowledgement that there is no guarantee behind our efforts at understanding nature—which is in line with Peirce’s epistemological modesty throughout—it still seems like Peirce is begging the question here. What he explains about the possibility of uncovering reality is circular: We are able to uncover “reality” simply because what we humans are ultimately able to uncover is termed “reality.” This apparent circularity reflects his desire to define truth as both humanly attainable and objective. In this essay, he leans more heavily on the first part of this definition.

He claims he has answered the religious objection because any kind of pattern or connection between things—even the changing of a law of nature as soon as it is discovered—would ultimately be figured out, with sufficient time and investigation (ibid., p. 80). Given that reality is understood as men’s ultimate agreement, Peirce falls back on the point that even if there is no order or regularity in “nature,” if regularity appears to men’s minds and is bolstered by experience over time, then that regularity is indeed real. To speak of a nature outside of what can be known to men does not

⁴¹ Others have noted Peirce’s use of a regulative hope of ultimate consensus in his theory of reality, though they argue that Peirce only begins to qualify his theory of reality with this acknowledgment of hope after 1880. See, e.g., Hookway 2004, Murphey 1961.

ultimately have meaning. Moreover, as to the religious objection, if men do uncover regularities that hold true over time, then regardless of their root cause, they are still to be understood as real.

In other words, if regularity is indeed ultimately uncovered in the long run, then though Peirce's theory seems circular, it would also be vindicated. Peirce appears to be trying to provide a framework to serve as a foundation for rational inquiry; given the limitations of man's mental functioning, Peirce tries to make clear what assumptions are necessary to support inductive reasoning. I would like to propose that Peirce's presentation of the nature of human knowledge is in fact well characterized by his conclusion to this essay: his is an "hypothesis uncontradicted by facts and justified by its indispensableness for making any action rational" (*ibid.*, p. 82). An important question is whether his framework ultimately supports this rational inquiry, or whether the framework might actually work to undermine rational inquiry because it uncovers the kinds of assumptions upon which the inquiry rests.

Finally, let us note that Peirce assumes the possibility of knowledge for the sake of rationality (*ibid.*). Rationality is presented as an end in itself, in other words. Whether this is because rationality promises happiness or dignity Peirce has not yet made clear. What does seem to be the case, though, is that while certain knowledge is only attainable in the long run—and so not for the individual investigator—living rationally is an available goal for a man's life.

II. Review of The Works of George Berkeley (1871)

Peirce's 1871 review of *The Works of George Berkeley* is largely a review of the nominalistic and realist traditions, dating back to William of Ockham and Duns Scotus. Peirce explains that modern philosophy has been entirely nominalistic, with its materialism and extension of simple mechanical principles (1871/1992, p. 104). He presents the realism of Duns Scotus as an alternative to the nominalism of modern philosophy, one that he understands to be akin to his own understanding of reality. The conception of reality and truth Peirce promotes follows from the preceding examination, most especially what has been said about the nature of inductive reasoning, the communal nature of truth, and that there is a real external. In its contradistinction to the nominalism of modern philosophy, Peirce's realism, as he explains it, is one of practicality and common-sense (ibid., p. 91). Peirce's realism both recognizes that knowledge of the world is dependent on the human mind, and maintains there is an objective external real; as we shall see, this is a difficult line to walk.

a. Peirce's Realism

As opposed to dreams and figments of the imagination, what is real, Peirce explains, has

an existence independent of your mind or mine or that of any number of persons. The real is that which is not whatever we happen to think it, but is unaffected by what we may think of it. (ibid., p. 88)

We know there are real things because “we find our opinions constrained” (ibid.).⁴² There must therefore be something that “influences our thoughts, and is not created by them” (ibid.).

We have, it is true, nothing immediately present to us but thoughts. Those thoughts, however, have been caused by sensations, and those sensations are constrained by something out of the mind. This thing out of the mind, which directly influences sensation, and through sensation thought, because it *is* out of the mind, is independent of how we think it, and is, in short, the real. (ibid.)

For the realist, things really are as they first appear to us (ibid., p. 91). There is no “thing in itself” (ibid., p. 90):

To make a distinction between the true conception of a thing and the thing itself is . . . only to regard one and the same thing from two different points of view; for the immediate object of thought in a true judgment *is* the reality. (ibid., p. 91)

The “*noumena*” is the “intelligible [conception]” that is the “last [product] of the mental action which is set in motion by sensation” (ibid., p. 90).

Peirce illustrates what his realism entails with a discussion of the nature of color. The white of a white thing, while dependent on man’s perception, is nonetheless real.

It is a real which only exists by virtue of an act of thought knowing it, but that thought is not an arbitrary or accidental one dependent on any idiosyncrasies, but one which will hold in the final opinion. (ibid.)

Traits are thus real so long as they are not dependent on an individual’s arbitrary or accidental mind or prejudices. Peirce explains that in this view, he is following Kant’s “realistic view of reality” (ibid., p. 91).

⁴² Peirce explains that this “is one view of reality, a very familiar one” (p. 88). It also seems to be his view of reality because it is in line with the realism he promotes in his own voice, c.f. discussion p. 91.

Peirce explains further that the realist position is that while all human thought has arbitrary elements in it, in the long run, sufficient consideration of a matter purifies it of its accidental elements and yields truth (ibid., p. 89).

Let any human being have enough information and exert enough thought upon any question, and the result will be that he will arrive at a certain definite conclusion, which is the same that any other mind will reach under sufficiently favorable circumstances. . . . There is, then, to every question a true answer, a final conclusion, to which the opinion of every man is constantly gravitating. (ibid.)

Peirce provides an example of a blind man and a deaf man witnessing the same phenomenon—a murder—to illustrate his point. The sense data each takes in will be different: one hears evidence of the murder and the other sees the murder occurring. “Their final conclusions,” though, “will be identical and free from the one-sidedness of their idiosyncrasies” (ibid.). As sensations become thought, in other words, what is accidental in an observation yields to what is objective. This truth is here presented to be of an entirely democratic nature: it is available to “any human being”—presumably then all human beings⁴³—with sufficient examination.

Even if an individual man does not home in on the truth, his opinion is nonetheless “constantly gravitating” toward it (ibid.).

He may for a time recede from it, but give him more experience and time for consideration, and he will finally approach it. The individual man may not live to reach the truth; there is a residuum of error in every individual’s opinions. No

⁴³ That Peirce thinks truth is available to all human beings is furthermore supported by his presentation in the beginning of the review, in which he speaks about various stages of history and their accompanying philosophies; he presents philosophy in an historicist manner, with the ideas of all men constrained by their specific times and places.

matter; it remains that there is a definite opinion to which the mind of man is, on the whole and in the long run, tending. (ibid.)

There are already many questions on which man has reached the “final agreement,” and “on all it will be reached if time enough is given” (ibid.). While individuals’ accidental circumstances or “arbitrary will[s]” might influence the path toward the final agreement, these accidental elements will ultimately not be able to “affect what the character of that opinion shall be when it is reached” (ibid.).

It seems any accidental elements of thought will be shed over a sufficiently long examination, and what will remain will be what is objective, in other words, the real.

This final opinion, then, is independent, not indeed of thought in general, but of all that is arbitrary and individual in thought; is quite independent of how you, or I, or any number of men think. Everything, therefore, which will be thought to exist in the final opinion is real, and nothing else. (ibid.)

In an essay with an already pronounced Hegelian influence,⁴⁴ Peirce here seems to be presenting a dialectical understanding of truth—except, instead of a dialectic of reasoning taking shape in history, we have a dialectic of man’s understanding of truth, with its increasing homing in on the truth. In the previous essay we saw that induction reveals truth in the long term, as an increasing amount of the parts are known; it is not clear, however, how the process of inductive reasoning purges arbitrary elements, unless we assume the inductions of many men, purified through their comparisons with one another.

Peirce’s realism thus recognizes that reality is the product of mental activity, but one purified of the arbitrary or accidental elements of any individual’s mind. Peirce’s

⁴⁴ His Hegelianism is similarly evident in the beginning of this essay with his remarks about the progression of philosophic history and what we can learn in its various stages.

realism thus takes seriously man's commonsense experience in the world, as this experience is the product of man's mind making sense of what it has encountered, and contains within it the objective elements that constitute the truth of the matter: "The realistic theory is thus a highly practical and common-sense position" (ibid., p. 91). The realist will think that "the very same objects which are immediately present in our minds in experience really exist just as they are experienced out of the mind," and he will not pretend to doubt that on which "universal agreement prevails" (ibid.). He will maintain that the "immediate object of thought in a true judgment *is* the reality," and as such he will "believe in the objectivity of all necessary conceptions, space, time, relation, cause, and the like" (ibid.). In other words, it is nonsense to say these concepts only exist in the phenomena—as men experience them—but not in the "thing-in-itself"; because they are necessary components of man's perception and making sense of the world, they are as real as anything is.

While Peirce appears to have thus far been teetering between presenting reality as that which is external to man that constrains man's opinion, and that which men ultimately agree upon, at this point he leans heavily toward the latter of these characterizations. He explains first that "idle and fictitious doubts" are not entertained because for the realist, "it is a consensus or common confession which constitutes reality" (ibid.). And then he goes so far as to say that what the realist wants is simply consensus—however it is achieved:

What he wants . . . is to see questions put to rest. And if a general belief, which is perfectly stable and immovable, can in any way be produced, though it be by the fagot and the rack, to talk of any error in such belief is utterly absurd. (ibid.)

In “The Fixation of Belief,” we will see that Peirce does not think that torture can indeed permanently fix opinion—at least the opinion of *everyone*, though some form of control can certainly fix the opinions of many, even most, men. For the context of the present essay, however, let us note that the emphasis on consensus stated in this manner is in stark opposition to his earlier observation that there is a reality that constrains our opinion. This point seems furthermore to be in opposition to the notion that truth is reached by men *in the long term*. Articulated in the manner quoted above, it seems truth ought to be understood as that on which there is wide agreement at any point in time: that for a long period of time it would have been true that the sun revolved around the earth, and then it would have become true that the earth revolved around the sun.

b. Logic and the Meaning of Our Conceptions

Moreover, despite his ostensible realism throughout this review, Peirce also applies the razor of the nominalist Occam, it seems, when speaking about meaning. As was hinted at in the discussion in the previous chapter with regard to habits and effects and how we develop knowledge, Peirce explains here that we understand concepts by the effects they have—and that such effects are all we know of such concepts.

What is the POWER of external things, to affect the senses? To say that people sleep after taking opium because it has a soporific *power*, is that to say anything in the world but that people sleep after taking opium because they sleep after taking opium? (ibid., p. 89)

Saying something has a certain power is simply saying that you expect “a regularity in future events” relating to that thing, and that this expectation is wrapped up in “the conception of that thing” (ibid.). Thus, if two concepts fulfill the same end, they are in

fact the same: a “rule for avoiding the deceits of language is this: Do things fulfil (*sic*) the same function practically? Then let them be signified by the same word” (ibid., p. 102).

c. Peirce’s Philosophical Project and the Relationship between Philosophy and Science

Let us note that Peirce has phrased his conception of truth in such a way here that takes into account the hope that the sufficiently long run will indeed come about: “if time enough is given” (ibid., p. 89). He has not, however, acknowledged outright the hypothetical nature of his claim that agreement in the long run will be reached, but instead treats it as simply true. This manner of presentation suggests that Peirce has some agenda with his essay. He appears to be trying to persuade his readers to accept his hypothesis that examination conducted sufficiently far will yield agreement among examiners, and that this agreement is the only intelligible definition of “truth.” Below we will try to uncover the reason for this agenda.

We also must ask why Peirce would want widespread acceptance of this hypothesis. Generally, hypotheses are confirmed or rejected through a test of their consequences. This raises the question we asked earlier regarding the relationship Peirce has in mind for philosophy and science, and why philosophy needs a new foundation. Thus we must ask: Does Peirce think that the widespread acceptance of this understanding will yield more information for man—even as science has more or less already been operating by a procedure in line with his hypothesis? Indeed, given that, if Peirce’s hypothesis was correct, science will eventually uncover the truth by itself, without any need of help from philosophy. What does philosophy, then, bring to the table? What is its role in uncovering knowledge?

In an obscure passage in this essay, Peirce seems to go so far as to admit that his presentation of truth and reality is ultimately merely an assertion. In the passage he explains that holding a position that is opposed to one he proposes would be no different from merely “asserting that there is a general *drift* in the history of human thought which will lead it to one general agreement, one catholic consent” (ibid., p. 89–90). But that seems to be precisely Peirce’s own position, and therefore perhaps an admission of what he is in fact doing. What he says next seems similarly to be his own position: “And any truth more perfect than this destined conclusion, any reality more absolute than what is thought in it, is a fiction of metaphysics” (ibid., p. 90). He explains that the understanding of truth laid out here “harmonizes with a belief in an infallible Church,” and thus would be “much more natural . . . in the Middle Ages than in Protestant or positivist times” (ibid.). This statement supports the observation we made in the previous chapter about the kinship between Peirce’s new philosophical foundations and scholasticism, as Peirce presents it in “Some Consequences of Four Incapacities.”

There is reason to suspect, then, that Peirce’s ultimate aim is to provide a philosophical foundation that will motivate scientists to pursue knowledge—as the belief in god had motivated scholars in the Middle Ages. He explains the great motivating power a belief in god has had:

If any one wishes to know what a scholastic commentary is like, and what the tone of thought in it is, he has only to contemplate a Gothic cathedral. The first quality of either is a religious devotion, truly heroic. One feels that the men who did these works did really believe in religion as we believe in nothing. (ibid., p. 86)

The belief in god’s existence impelled the accomplishment of great feats.

The men of that time did fully believe and did think that, for the sake of giving themselves up absolutely to their great task of building or writing, it was well worth while to resign all the joys of life. Think of the spirit in which Duns Scotus must have worked, who wrote his thirteen volumes in folio, in a style as condensed as the most condensed parts of Aristotle, before the age of thirty-four. (ibid.)

Thinkers were not burdened by concern for their own individuality, but instead with “universal truth” (ibid.), and matters were given careful and diligent consideration:

Every part is worked out for itself as a separate problem, no matter how analogous it may be in general to another part. And no matter how small and hidden a detail may be, it has been conscientiously studied, as though it were intended for the eye of God. (ibid., p. 86–87)

We thus see that Peirce acknowledges that the belief in God was a great motivator of scholarly pursuit. He acknowledges this at the same time he acknowledges that the “spirit” of the “ages of faith” was “not altogether admirable,” as “faith has its faults as a foundation for the intellectual character” (ibid., p. 86).

Peirce’s assertion—that truth will converge in “one catholic consent” (ibid., p. 89–90)—might then be an attempt to provide a sufficiently motivating goal to us men today who “believe in nothing” like the scholastics believed in God (ibid.). If this is the case, we should understand his chief concern to be that knowledge will not be sufficiently pursued in an age of skepticism, and his philosophical project to aim at explaining what truth is so as to continue to motivate men in its pursuit. The assertion that men’s opinions about reality will converge makes a sound intellectual foundation because—as we learned in “Grounds of Validity”—it is a hypothesis “rigidly demanded by logic,” not

contradicted by facts, and justified because of “its indispensableness for making any action rational” (1869/1992, p. 82).

Peirce’s philosophical project is thus best understood as twofold: an attempt to put philosophers or philosophical inquirers on firmer intellectual footing than they have before stood, as well as an effort to motivate them to work diligently toward uncovering the universally recognized truth—as the scholastics previously had been motivated. The pursuit of knowledge appears to be valued for its own sake, to be a good in and of itself; human reason considered man’s highest faculty, and truth as an end worth pursuing, simply. This is the position we suspected when exploring the “Grounds of Validity of the Laws of Logic.” The second of these goals points to the danger Peirce sees with Cartesian philosophy and the modern project: of leading to an extreme skepticism that produces a belief in “nothing,” sapping men’s motivation for philosophical pursuit and threatening the advance of knowledge. We will continue to explore Peirce’s underlying motivations and philosophical project. For now, let us turn to the heart of his articulations of his early pragmatism: “The Fixation of Belief” (1877) and “How to Make Our Ideas Clear” (1878).

III. “The Fixation of Belief”

“The Fixation of Belief” was written in 1877 as the first in a series of six papers on the logic of science (1877/1992, p. 109, note by the editors). This essay continues examining the nature of truth and how it is best uncovered. Whereas Peirce verged on sounding like a relativist in his review of Berkeley—with his welcoming of opinion set by “the fagot and the rack” (1871/1992, p. 91)—his presentation in this essay is more

refined and emphasizes instead the objective nature of reality. He similarly has a more refined and clearer presentation of the relationship between truth and man's common sense experience in the world, and the process by which immediate perception is purified—in other words, how accidental attributes are shed and truth is approached, or the limits of human understanding. As Peirce explains his position more, questions about the coherence of his position also arise. Also of note: Peirce is here far less democratic with regard to the attainment of truth than he was in the review of Berkeley; and as with previous essays, history has a prominent role in Peirce's presentation.

a. Methods of Logic

In this essay, Peirce reaffirms that logical validity depends on fact, not on what we are inclined to believe (1877/1992, p. 111–112). The aim of reasoning is to determine, “from the consideration of what we already know, something else which we do not know” (ibid., p. 111). While we “do generally reason correctly,” this is “an accident”: “the true conclusion would remain true if we had no impulse to accept it” (ibid., p. 112). The ability to reason well, while not an innate instinct, is a tool we can develop: “We come to the full possession of our power of drawing inferences the last of all our faculties, for it is not so much a natural gift as a long and difficult art” (ibid., p. 110). This formulation of truth thus points to the existence of an objective truth, independent of man, that with the right tools, man is able to uncover and comprehend. It is certainly not what the democratic masses agree upon or are inclined to believe.

Peirce begins the essay by telling the story of the development of the tools of logic. He explains how for the Romans and “mediaeval schoolmen,” knowledge ultimately

rested on “a premise derived from authority” (ibid.). To Roger Bacon in the middle of the thirteenth century, it became clear that only through experience could anything be learned; Francis Bacon in turn insisted on learning through experiment (ibid.). Neither thinker’s conception would be accepted in its entirety by modern readers: Roger Bacon thought that the experience of “interior illumination” taught more than the external senses could—for example, about the transubstantiation of bread—and Francis Bacon’s “view of scientific procedure” was entirely inadequate (ibid.). Nonetheless, both men evidenced the nascent stages of the scientific method and the understanding that it is important to check theory with experience (ibid.).

The methods of early scientists like Copernicus, Kepler, and Galileo were closer still to those of modern scientists (ibid.). Kepler impressed on men’s minds the importance of testing their theories with evidence from experience.

His greatest service to science was in impressing on men’s minds that this was the thing to be done if they wished to improve astronomy; that they were not to content themselves with inquiring whether one system of epicycles was better than another, but that they were to sit down to the figures and find out what the curve, in truth, was. (ibid.)

Yet, without clear guidance on how best to conduct his research, Kepler set upon many futile paths before stumbling upon the right answer. This took much virtue—

“incomparable energy and courage” (ibid.)—but was also very inefficient. Kepler

[blundered] along in the most inconceivable way (to us), from one irrational hypothesis to another, until, after trying twenty-two of these, he fell, by the mere exhaustion of his invention, upon the orbit which a mind well furnished with the

weapons of modern logic would have tried almost at the outset.⁴⁵ (ibid., p. 110–111)

Peirce suggests, in other words, that the tools of logic can guide scientific experiment to make it more efficient. This is a key clue, then, as to another aspect of the role Peirce thinks philosophy—in this case, logic—ought to have in its relation with science: it can help science zero in on a correct understanding of reality. Like with the example of Kepler, every great work of science provides an example of “the defective state of the art of reasoning of the time when it was written” (ibid., p. 111). As such, “each chief step in science has been a lesson in logic” (ibid.).

b. Logic, Psychology, and Mental Habits

The second section of this essay ventures into examining the psychological processes with which man makes inferences. In other words, in almost the same breath in which Peirce explains that logic and psychology are different matters entirely, he once again veers into an examination of man’s psychology within a discussion of logic. Peirce posits an evolutionary explanation for man’s relation to logical thinking. It seems to be in our nature to think logically about practical matters: “Logicality in regard to practical matters is the most useful quality an animal can possess, and might, therefore, result from the action of natural selection” (ibid., p. 112). In other respects we are entirely illogical:

⁴⁵ In his collection of Peirce’s writings, Philip P. Wiener notes that Peirce apparently amended this view of Kepler’s work in later years, commenting in 1893 that “Kepler’s work on Mars ‘is the most marvelous piece of inductive reasoning I have been able to find’” (Wiener 1958, p. 94 fn3). Peirce’s comments about Kepler in “The Fixation of Belief” are nonetheless useful because they illustrate Peirce’s larger point regarding how the tools of logic can aid scientific examination.

Most of us, for example, are naturally more sanguine and hopeful than logic would justify. We seem to be so constituted that in the absence of any facts to go upon we are happy and self-satisfied; so that the effect of experience is continually to contract our hopes and aspirations. Yet a lifetime of the application of this corrective does not usually eradicate our sanguine disposition. Where hope is unchecked by any experience, it is likely that our optimism is extravagant. (ibid.)

It is probably best for man's survival that we are illogical in these ways—"of more advantage to the animal to have his mind filled with pleasing and encouraging visions, independently of their truth"—and thus illogicality in matters not of immediate practical importance is likely also the result of natural selection (ibid.).

Taking up, once more, the understanding of the role of habit discussed earlier, Peirce claims it is "some habit of mind" that determines the inferences we draw (ibid.). This habit can be either a part of our nature or acquired (ibid.). The goodness of our mental habits is judged by the rules of logic—an acknowledgment of the distinction between mental habits and logic:

The habit is good or otherwise, according as it produces true conclusions from true premises or not; and an inference is regarded as valid or not, without reference to the truth or falsity of its conclusion specially, but according as the habit which determines it is such as to produce true conclusions in general or not. (ibid.)

An example of an acquired habit of mind: observing that "a rotating disk of copper quickly comes to rest when placed between the poles of a magnet" and inferring "that this will happen with every disk of copper" (ibid.).

In practical matters in which we are engaged on a regular basis, experience aids the mind in determining the best way to act, and the mind ultimately acts in a routine manner (ibid., p. 113). Thus a better understanding of mental habits "would probably be . . . of no

service to a person whose thought is directed wholly to practical subjects, and whose activity moves along thoroughly-beaten paths” (ibid., p. 112–113). But when a man is in an “unfamiliar field,” or is not “continually checked by experience,” guidance regarding mental habits is helpful. Let us remember what Peirce said about Kepler’s efforts:

All history shows that the most masculine intellect will oftentimes lose his orientation and waste his efforts in directions which bring him no nearer his goal, or even carry him entirely astray. He is like a ship in the open sea, with no one on board who understands the rules of navigation. (ibid., p. 113)

In such cases, “some general study of the guiding principles of reasoning” is useful (ibid.).

Peirce’s position thus seems to be that through much familiarity and experience, the mind, perhaps unconsciously, develops efficient mental habits, which it employs by routine—which is of course what “habit” suggests. In areas in which one does not have much experience, by contrast, a serious study of logic can be of much aid. A serious study of logic can, in other words, be a substitute for long experience.

Peirce explains that a proper examination needs to delineate at the outset between those facts that can be examined, and those that are taken for granted in an examination. Many things are assumed when a logical question is asked: for example, that there are “states of mind as doubt and belief,” and that it is possible to pass from one to the other, “the object of thought remaining the same, and that this transition is subject to some rules which all minds are alike bound by” (ibid.). One consequence is that “conceptions which are really products of logical reflection . . . mingle with our ordinary thoughts” without us

being aware, and are thus “frequently the causes of great confusion” (ibid.). The concept of “quality” is an example:

A quality as such is never an object of observation. We can see that a thing is blue or green, but the quality of being blue and the quality of being green are not things which we see; they are products of logical reflection. (ibid.)

What this means is that our common sense conceptions “are deeply imbued with that bad logical quality to which the epithet *metaphysical* is commonly applied” (ibid.). This confusion can only be cleared up with a “severe course of logic” (ibid.).

This recognition of the errors in our common sense experience is an apparent amendment to the common-sense realism that Peirce espoused in his review of Berkeley. In later years, as we shall see in the next chapter, Peirce explains that his is a “Critical” common sense philosophy (1905b/1998, p. 346). Our common sense understanding—itsself the product of our experience in the world—needs to be subjected to logic.

c. Belief, Doubt, and Inquiry

The third and fourth sections of “The Fixation of Belief” examine the experience of doubting and believing. Peirce has only discussed doubt thus far in the context of explaining why fake doubt—Cartesian doubt—is a distraction from fruitful questioning and thus the pursuit of knowledge. Here we learn about the distinction between fake doubt and real doubt. Continuing in the theme of evolution and history, Peirce presents real doubt and belief as physical states that determine our behavior, much like other physical states of the body, such as an irritated nerve.

Doubt and belief are physical states that we sense, with the one feeling different than the other:

We generally know when we wish to ask a question and when we wish to pronounce a judgment, for there is a dissimilarity between the sensation of doubting and that of believing. (1877/1992, p. 114)

Beliefs “guide our desires and shape our actions”; they indicate a habit in our nature that will determine our actions (ibid.). Belief is thus an indication of a potentiality in us: that we are conditioned to act in a certain way when a certain condition arises (ibid.). Peirce explains a biological analogue of belief is “that habit of the nerves” wherein “the smell of a peach will make the mouth water” (ibid.).

Doubt, on the other hand, does not determine action, but is rather an irritating and uncomfortable feeling that indicates the lack of belief. It is “an uneasy and dissatisfied state from which we struggle to free ourselves” (ibid.). In contrast, we “cling tenaciously” to both believing and “believing just what we do believe” (ibid.). Doubt, for its part, “stimulates us to action until it is destroyed” and we are able to reach a state of “calm and satisfactory” belief (ibid.). Its biological analogue is “the irritation of a nerve and the reflex action produced thereby” (ibid.).

Peirce uses the term “inquiry” to refer to the “struggle to attain a state of belief” (ibid.). The “irritation of doubt” is the immediate cause of inquiry (ibid.). More generally, inquiry is undertaken because we want beliefs that will successfully “guide our actions so as to satisfy our desires” (ibid.). As having such beliefs is “certainly best for us,” we will “reject any belief which does not seem to have been so formed as to insure this result” (ibid.). This indicates that a real doubt, as opposed to a Cartesian or fake doubt, emerges when our beliefs pose a problem for us—when acting on our beliefs does not result in the consequences we expect. Experience either confirms a belief or raises questions about

it—it is that which tests a belief's strength. When a belief is brought into doubt by experience, inquiry starts, with the sole aim of reaching a firmer belief that is not shaken by one's experience in the world (ibid., p. 114–115).

Peirce explains that while we think we want a true opinion, not merely any opinion, in fact we settle for an opinion that simply satisfies the circumstances that prompted our initial doubt.

We may fancy that . . . we seek, not merely an opinion, but a true opinion. But put this fancy to the test, and it proves groundless; for as soon as a firm belief is reached we are entirely satisfied, whether the belief be true or false. (ibid., p. 115)

This proposition that “the settlement of opinion is the sole end of inquiry” is “very important” because it “sweeps away . . . various vague and erroneous conceptions of proof” (ibid.). It does away with pretend Cartesian doubt, as we have noted. Doubt that is not real will take up mental energy, but will not propel the mind along a path of inquiry whereby it will grow and learn.

The mere putting of a proposition into the interrogative form does not stimulate the mind to any struggle after belief. There must be a real and living doubt, and without this all discussion is idle. (ibid.)

Similarly, philosophical inquiry can rest on foundations no firmer than that of a proposition that is not doubted.

It is a very common idea that a demonstration must rest on some ultimate and absolutely indubitable propositions. These, according to one school, are first principles of a general nature; according to another, are first sensations. But, in point of fact, an inquiry, to have that completely satisfactory result called demonstration, has only to start with propositions perfectly free from all actual doubt. (ibid.)

The absence of doubt is, in fact, as firm as a point can be, and thus it makes no sense to continue to argue about something about which “all the world is fully convinced” (ibid.). Continuing to argue about such matters would be entirely futile: “When doubt ceases, mental action on the subject comes to an end; and, if it did go on, it would be without a purpose” (ibid.). This sounds very much like the realist position Peirce laid out in his review of Berkeley.

What is confusing about this argument is that Peirce only just explained how our common sense understanding of the world is rife with confusion. Now he argues that propositions that are commonly accepted ought to be regarded as sufficiently sound. How exactly do we know which propositions are sufficiently sound—warranting belief—and which contain confused notions that need to be cleared up with further examination—warranting, in other words, doubt? We will get more clarity on these questions when we examine “How to Make Our Ideas Clear” in the following section.

d. Four Methods for Settling Doubt: The Virtues of the Scientific Method

Now that Peirce has explained in what inquiry consists—searching for a belief that settles doubt—he spends the final section of this essay examining different stages of methods for settling doubt. Each method examined has its advantages and downsides, and each later method attempts to address the deficiencies of the method it displaces. In Peirce’s presentation, it seems as though the trajectory he presents is an historical and necessary one, like his presentation of the scholastic and modern philosophic approaches to truth in “Some Consequences of Four Incapacities.” A close reading of this section, though, suggests that while there is something historical about the trajectory, it certainly

is not a necessary trajectory and in fact many individuals do not move along the trajectory but rather remain governed by one of the early methods, incapable of improving their method of understanding. As we shall see, man's social instinct plays a primary role in the development of knowledge; second to man's social instinct as a driver in the development of knowledge and methods of logic is the force of external, objective reality.

(1) Method of Tenacity

The method of tenacity is presented as the earliest method of settling doubt. It is characterized as:

Taking any answer to a question which we may fancy, and constantly reiterating it to ourselves, dwelling on all which may conduce to that belief, and learning to turn with contempt and hatred from anything which might disturb it. (ibid.)

The method of tenacity is the ordinary religious position. It is "pursued by many men" (ibid.), is at times "deliberately adopted," and more often what results because men have an "instinctive dislike of an undecided state of mind" (ibid., p. 116). In contrast to the "vague dread of doubt," a "steady and immovable faith yields great peace of mind" (ibid.). It may be inconvenient at times, of course—such as if one believes that fire will not burn him⁴⁶—but the man who sticks to this method must experience more pleasure from its certainty than pain from its inconveniences (ibid.). That some people are able to stick to this method even when it goes against experience suggests that even experience

⁴⁶ This example echoes the example of a hot stove from "Question Concerning Certain Faculties Claimed for Man" to illustrate the elements of experience and social testimony in our knowledge (1868a/1992, p. 20). This example quietly points to the importance of that second force of understanding, experience.

does not rattle the beliefs of some—that some people’s beliefs are impervious to the feedback of the external world.

There are layers to Peirce’s presentation of the method of tenacity; delving into these layers sheds light on his understanding of the soundness of that which is the opposite of this method, namely philosophy. On the surface is Peirce’s claim that we should not judge a man attached to this method for being irrational because he does not claim to be rational. Such a man will in fact “talk with scorn of man’s weak and illusive reason” (ibid.)—in other words, deride those who seek to understand the world around them. Proclaiming that a man attached to the method of tenacity is irrational would thus be “an egotistical impertinence”; it would amount simply to “saying that his method of settling belief is not ours” (ibid.). Here we have an acknowledgment by Peirce that there will always be men for whom reason is not a standard, and no argument is capable of persuading them otherwise.

Underneath the surface, though, Peirce quietly mocks the person attached to the method of tenacity. He portrays the ordinary religious position as cowardly, if also happy.

If it be true that death is annihilation, then the man who believes that he will certainly go straight to heaven when he dies, provided he have fulfilled certain simple observances in this life, has a cheap pleasure which will not be followed by the least disappointment. (ibid.)

Peirce then compares such a person to an ostrich who “buries its head in the sand as danger approaches”; this is “very likely . . . the happiest course. It hides the danger, and then calmly says there is no danger” (ibid.). In other words, such a position entails hiding from the truth for the sake of a “cheap pleasure.” This criticism of cowardice and

dishonesty is consistent with Peirce's surface teaching that calling this method irrational is not a sufficient criticism, if that was not the adherents' criterion to begin with.⁴⁷ Peirce acknowledges that an adherent of reason—the philosopher or scientist—can not convince a religious person of the superiority of reason, for any argument would entail applying the tools of reason; but at the least, he can point out the lack of fortitude and honesty on the part of a believer who refuses to question received articles of faith.

In addition to its lack of philosophic virtue, the method of tenacity has the significant flaw that it does not work well in practice (*ibid.*). The social impulse—that force that we have seen play a crucial role in the development of our understanding of the world—works against it (*ibid.*).

The man who adopts [the method of tenacity] will find that other men think differently from him, and it will be apt to occur to him, in some saner moment, that their opinions are quite as good as his own, and this will shake his confidence in his belief. (*ibid.*)

Man's social impulse is a product of evolution and natural selection, and is vital for the survival of the species (*ibid.*, p. 116–117). While some individuals might be able to get by according to the method of tenacity, at the level of all men, burying one's head in the sand is a poor survival strategy.

⁴⁷ Peirce's acknowledgment that such a criticism would be begging the question by simply assuming the superiority of reason is an indication that Peirce is aware of a concern raised earlier: that he seems to be also assuming the superiority or even desirability of reason—that reason is its own end without his having given a justification for this assumption.

(2) Method of Authority

Man's social impulse requires that a method for settling doubt settle doubt for the community, not only for the individual. The method of authority is able to do this—it is like the method of tenacity for the whole community.

Let the will of the state act, then, instead of that of the individual. Let an institution be created which shall have for its object to keep correct doctrines before the attention of the people, to reiterate them perpetually, and to teach them to the young; having at the same time power to prevent contrary doctrines from being taught, advocated, or expressed. (ibid., p. 117)

Such a method requires, in addition, threatening those who do not tow the line:

Let all men who reject the established belief be terrified into silence. Let the people turn out and tar-and-feather such men, or let inquisitions be made into the manner of thinking of suspected persons, and, when they are found guilty of forbidden beliefs, let them be subjected to some signal punishment. . . . A general massacre of all who have not thought in a certain way has proved a very effective means of settling opinion in a country. (ibid.)

Peirce explains that political and religious doctrines have been upheld by such means since the “earliest times” (ibid.). He points to the history of Rome and the Catholic Church— “from the days of Numa Pompilius to those of Pius Nonus”⁴⁸—as a prime example of the application of such tactics, but explains that “wherever there is a priesthood . . . this method has been more or less made use of” (ibid.). The method is also employed in some form by any class of men—an aristocracy or a guild, for example—

⁴⁸ The editors of *The Essential Peirce* note that Pius Nonus, otherwise known as Pope Pius IX, pope from 1846–1878, was the “prime mover in the acceptance, on 18 July 1870, of the doctrine of papal infallibility, an event that deeply impressed Peirce.” (Houser and Kloesel/1992, p. 377, note 19)

whose positions rest on the widespread acceptance of “certain propositions” (ibid.). Inevitably, the method entails cruelty, and when “consistently carried out,” will be seen as “atrocities of the most horrible kind in the eyes of any rational man” (ibid.). It is indeed “natural” that “sympathy and fellowship should . . . produce a most ruthless power” (ibid.).

The method of authority has many advantages—“immeasurable mental and moral superiority” (ibid., p. 117–118)—as compared with the method of tenacity. It is more successful at fixing belief, and has “over and over again worked the most majestic results” (ibid., p. 118).

The mere structures of stone which it has caused to be put together—in Siam, for example, in Egypt, and in Europe—have many of them a sublimity hardly more than rivaled by the greatest works of Nature. (ibid.)

While religious creeds do not really stay fixed over long periods of time, they change so slowly as to be imperceptible during a man’s life, “so that individual belief remains sensibly fixed” (ibid.). This is perhaps the best method of fixing belief “for the mass of mankind”; “if it is their highest impulse to be intellectual slaves, then slaves they ought to remain” (ibid.). Like in his treatment of the method of tenacity, it seems that there is thinly veiled contempt here, while at the same time an appreciation of the method’s advantages, given the nature of “the mass of mankind.”

A deficiency of this method—by which it seems Peirce means a feature that prevents it from fixing all belief for everyone for all time, so in other words, a practical deficiency—is that it is impossible for one person or institution to set an opinion on every topic.

No institution can undertake to regulate opinions upon every subject. Only the most important ones can be attended to, and on the rest men's minds must be left to the action of natural causes. (ibid.)

This will not pose a problem for the method in the case of most men, on whom culture will act to prevent the doubting of authority. But some men will be driven by a wider social impulse and will be moved to question the legitimacy of authoritative opinion when other men in different times and places have thought differently.

In the most priestridden states some individuals will be found who are raised above that condition. These men possess a wider sort of social feeling; they see that men in other countries and in other ages have held to very different doctrines from those which they themselves have been brought up to believe; and they cannot help seeing that it is the mere accident of their having been taught as they have. . . . Their candor cannot resist the reflection that there is no reason to rate their own views at a higher value than those of other nations and other centuries; and this gives rise to doubts in their minds. (ibid.)

This recognition will cause them to doubt not only this opinion or that, but every opinion that seems arbitrary (ibid.). It will be recognized that beliefs cannot be willfully adhered to, nor imposed on others, and a new method of settling doubt will be sought (ibid.).

(3) A Priori Method

A superior method will both "produce an impulse to believe," as well as provide guidance on which propositions should be believed (ibid.). Because it is "natural causes" that interfere—at least for some men—with the method of authority, this next method will have to be in line with natural causes. As man's social impulse seems to be chief among these natural causes, this method will consist of working with his social impulse

rather than against it. It will consist of men speaking with one another and discussing ideas to determine beliefs. No ideas and possibilities will be considered off limits in such a discussion. Man's social impulse—through discourse—is at the center of this new method, which Peirce terms the *a priori* method.

Let the action of natural preferences be unimpeded, then, and under their influence let men, conversing together and regarding matters in different lights, gradually develop beliefs in harmony with natural causes. (ibid.)

The *a priori* method resembles the method of artists; it does not rely upon “observed facts, at least not in any great degree,” but rather upon propositions that are ““agreeable to reason””—in other words, “that which we find ourselves inclined to believe” (ibid., p. 118–119). Plato's teaching that “the distances of the celestial spheres from one another should be proportional to the different lengths of strings which produce harmonious chords,”⁴⁹ and “Kepler's theory, that the celestial spheres are proportional to the inscribed and circumscribed spheres of the different regular solids,” are both examples of applying the *a priori* method (ibid., p. 119). While some will find Plato's position more agreeable and others will prefer Kepler's, ultimately men will be led by “the shock of opinions . . . to rest on preferences of a far more universal nature” (ibid.).

The *a priori* method of settling doubt is “far more intellectual and respectable from the point of view of reason” than are the other two methods we have examined—those of tenacity and authority—but “its failure” has also been the “most manifest” (ibid.). Inquiry turns into a matter of taste, which “unfortunately, is always more or less a

⁴⁹ A citation to the *Timaeus* 35-39 and *Epinomis* 990-992 (Houser and Kloesel/1992, p. 377 n20).

matter of fashion” (ibid.). Metaphysics thus swings from one philosophy to another without reaching “any fixed agreement” (ibid.). “The pendulum has swung backward and forward between a more material and a more spiritual philosophy, from the earliest times to the latest” (ibid.). Thus, while this method “promised to deliver our opinions from their accidental and capricious element,” it ultimately failed to do so (ibid.). The *a priori* method does thus “not differ in a very essential way from that of authority” (ibid.).

(4) *The Method of Science*

Those who do not want opinions that are the result of accidents will seek a method of settling doubt that is superior to that of *a priori*. This next method will speak to that other important force that has been almost absent thus far in this essay: experience, or the feedback of reality. It will be superior because it will not be checked by human opinion, but by something external to the individual man: “caused by nothing human, but by some external permanency—by something upon which our thinking has no effect” (ibid., p. 120). Such a thing must “be something which affects, or might affect, every man” (ibid.). The method must be one that yields the same conclusion, though individuals will be affected by the external thing in various ways (ibid.). This is the method of science. Thus we see that other important force of knowledge—reality—enters back into the discussion.

The method of science rests on the fundamental hypothesis that there is a reality (ibid.); we indeed deduced that this was Peirce’s implicit assumption in his 1869 “Grounds of Validity” essay. Spelled out, the assumption upon which science operates is that

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. (ibid.)

Of the methods Peirce explores in this essay, only the method of science takes reality into account (ibid.).

Peirce acknowledges that he could be accused of circularity if he were to attempt to prove the existence of reality by pointing to scientific conclusions, which of course rest on this assumption (ibid.). He addresses this accusation with four arguments. The multitude of arguments he gives speaks to both the difficulty of proving reality—of proving that there exists an objective external world, available to all men, and thereby justifying science—and the thought Peirce has given to the matter. That Peirce provides many arguments here moreover suggests that he has not been entirely satisfied with how he has addressed the issue up until this point. His method of argument once again illustrates his proposal in “Some Consequences” of the need to attack problems with multi-form arguments.

Here is his four-fold response: (1) while investigation might not be able to prove there are real things, it also will not prove there are not real things; “the method and the conception on which it is based remain ever in harmony” (ibid.). Thus, unlike with the other methods examined, “no doubts of the method . . . necessarily arise from its practice” (ibid.). In other words, it is in line with—and thus will not be shaken by—our

experience. This is of course similar to the justification he gave in “Grounds of Validity,” only there with regard to the assumption that the sufficiently long run will materialize.

(2) Implicit in the irritating feeling of doubt that spurs us to inquiry is the assumption that there is a correct answer to the doubt.

The feeling which gives rise to any method of fixing belief is a dissatisfaction at two repugnant propositions. But here already is a vague concession that there is some *one* thing to which a proposition should conform. (ibid.)

Doubt thus entails the assumption of reality. No one then really doubts reality—or, if he did, the doubt would not be a source of irritation, and thus would not prompt him to inquiry. Similarly, the social impulse—that other force that produces knowledge—will not cause us to doubt this assumption (ibid.).

(3) Peirce’s third argument in favor of the assumption of reality and the scientific method is a naturalistic one of sorts: men in fact already apply the method of science to “a great many things” (ibid.). They do not use it only in those matters in which they do not know how to apply it. Finally, (4) Peirce explains that the use of the method further does not lead to doubt because of its great success in producing conclusions that can be widely accepted.

Experience of the method has not led me to doubt it, but, on the contrary, scientific investigation has had the most wonderful triumphs in the way of settling opinion. (ibid.)

These are the reasons, Peirce explains, that he does not doubt the scientific method or the assumption of reality upon which it rests (ibid.). Without real doubt, then, “it would be the merest babble for me to say more about it” (ibid., p. 120–121). If someone indeed has

a “living doubt upon the subject,” then he should pursue the question further (ibid., p. 121).

Another virtue of the scientific method is that, of the four methods examined, only it presents a clear standard for judging the soundness of a proposition—in other words, “any distinction of a right and a wrong way” (ibid.). The standard of the method of tenacity is whatever I may think; the only test for the method of authority is what the state may think. Peirce holds up Hegel as an illustrative example of the standard of the *a priori* method, portraying his method as not significantly different, in fact, from those of tenacity and authority:

The very essence of the [*a priori* method] is to think as one is inclined to think. . . . The Hegelian system recognizes every natural tendency of thought as logical, although it be certain to be abolished by counter-tendencies. Hegel thinks there is a regular system in the succession of these tendencies, in consequence of which, after drifting one way and the other for a long time, opinion will at last go right. (ibid.)

In other words, for Hegel, every tendency of thought is legitimate, as is every counter-tendency; what is right can not be known at any of the intermediate stages, but rather only at the end of time when the whole is understood. The *a priori* method, moreover—Peirce claims—ultimately simply follows the lead of science.

It is true that metaphysicians get the right ideas at last; Hegel’s system of Nature represents tolerably the science of that day; and one may be sure that whatever scientific investigation has put out of doubt will presently receive *a priori* demonstration on the part of the metaphysicians. (ibid.)

The *a priori* method is thus not contributing to advancing knowledge, which is its aim.

By contrast, the scientific method provides concrete guidance as to what it does and does not support.

The test of whether I am truly following the method is not an immediate appeal to my feelings and purposes, but, on the contrary, itself involves the application of the method. (ibid.)

What is this guidance? Despite his praise for the scientific method in “The Fixation of Belief,” Peirce does not give a clear statement in the essay of what exactly the scientific method is. To better understand how the method provides “concrete guidance” in inquiry, we will briefly turn to a later discussion of the scientific method from Peirce’s 1901 “Laws of Nature” essay.

Peirce explains that science consists of generalizing and explaining phenomena (1901b/1998, p. 73). When confronted with a phenomenon in need of explanation, the scientific man will conjecture as to its cause; his conjectures “will be suggested by the phenomena,” and indeed, “unless there be something like inspiration in them, he never could make a successful step” (ibid.). His conjectured explanations then need to be tested, a process that “ought to be governed solely by considerations of economy”; for example, it makes sense to first test a hypothesis that is unlikely to be true, and which can thus be disposed of by a single experiment (ibid.). Once a hypothesis has been “provisionally adopted, on probation,” Peirce explains:

the effort ought to be to search out the most unlikely consequences of it that can be thought of, and that is among those that are readily capable of being brought to the test of experiment. (ibid., p. 73–74)

A failed prediction may mean that the theory is wrong, or that it simply needs to be altered (ibid., p. 74). On the other hand, if the unlikely prediction is “verified,” and if it

continues to be verified by subsequent experiments, “although each time the most unlikely of the (convenient) predictions has been tried,” then the theory proves its strength: “one begins to doff one’s cap to the rising star that nature herself seems to favor” (ibid.). Even these “rising star[s]” are accepted only provisionally: “indeed, the presumption is that the time will come when it will have to be reformed, or perhaps even superseded” (ibid.). We see from this description that the scientific method consists of continuously fine-tuned feedback between man’s mind and the external world; the mind offers suggestions of connections between observed phenomena by way of explanation—hypotheses—which experience in the external world—experiment—either confirms or rejects.

Returning to “Fixation,” Peirce explains further that the fact that both good and bad reasoning is possible is “the foundation of the practical side of logic” (1877/1992, 121). In other words, because *a priori* reasoning can go both well and erroneously, and on its own has no way of straightening itself out, ideas must be tested in experience. Only “rough facts” can awaken us from the pleasant dream that the *a priori* method leaves us in (ibid.).

(5) Peirce’s Philosophical Project

In concluding “Fixation,” Peirce provides us hints of his intended philosophical project: what is behind it, and what it is after. He discusses the advantages of the first three methods of settling doubt over the scientific method, explaining that in certain respects they are easier to adhere to. “The *a priori* method is distinguished for its comfortable conclusions”—it allows one to think as one is inclined (ibid.). The method of

tenacity is admirable “for its strength, simplicity, and directness” (ibid., p. 122). Men who use it act decisively.

They do not waste time in trying to make up their minds what they want, but, fastening like lightning upon whatever alternative comes first, they hold to it to the end, whatever happens, without an instant’s irresolution. (ibid.)

Such a method of reasoning will “generally accompany brilliant, unlasting success” (ibid.).

The method of authority is the method that will always govern the masses. Governments will always think there are some thoughts too dangerous to not be suppressed (ibid., p. 121). Public opinion will then step in to govern what government does not:

If liberty of speech is to be untrammelled from the grosser forms of constraint, then uniformity of opinion will be secured by a moral terrorism to which the respectability of society will give its thorough approval. . . . Let it be known that you seriously hold a tabooed belief, and you may be perfectly sure of being treated with a cruelty less brutal but more refined than hunting you like a wolf. (ibid., p. 121–122)

Given this, the greatest minds do not openly express all of their thoughts:

The great intellectual benefactors of mankind have never dared, and dare not now, to utter the whole of their thought; and thus a shade of *prima facie* doubt is cast upon every proposition which is considered essential to the security of society. (ibid., p. 122)

The torment comes not only from without, but also from within: “a man torments himself and is oftentimes most distressed at finding himself believing propositions which he has been brought up to regard with aversion” (ibid.). We are reminded of Peirce’s claim in

“Questions Concerning Certain Faculties Claimed for Man” about the effect the opinions of others have on our understanding: “testimony is even a stronger mark of fact than *the facts themselves*” (1868a/1992, p. 19). Adhering to the method of authority is thus “the path to peace”: “the peaceful and sympathetic man will . . . find it hard to resist the temptation to submit his opinions to authority” (1877/1992, p. 122).⁵⁰

In closing his essay, Peirce exhorts his reader that if he wants his opinion to “coincide with the fact” then his method will be that of science (ibid.). It is only this method that promises to uncover reality—that which is external to individual men. “There is no reason why the results of [the other] three methods should do so” (ibid.).

Up until this point, Peirce’s account has been naturalistic: he has taken the tone of a dispassionate observer, describing phenomena as they occur. Methods of inquiry fail because they do not work—they do not settle doubt. Those who are not satisfied by a given method do not need its deficiencies explained to them; they run into the deficiencies, and thus experience doubt, through their own activity in the world. Yet here Peirce makes a concerted effort to promote the scientific method. He veers away, in other words, from the dispassionate tone of the scientist who observes nature, and instead aims to ignite a great desire in his audience to pursue knowledge. If one wishes to pursue knowledge, Peirce explains, one ought to adopt the scientific method as one’s method of inquiry. It is no longer a matter of simply what method of inquiry works for an individual; adopting the scientific method becomes a moral imperative.

⁵⁰ Peirce’s skepticism about the possibility of universal enlightenment runs counter to the way in which democratic theorists attempt to use his epistemology to support a theory of democratic politics, as discussed in the introduction to this dissertation. See, e.g., Talisse (2005), Misak (2000).

It is possible to overcome an attachment to the method of inquiry to which one is habituated, Peirce explains, by reflecting upon the virtues and vices of the different methods and one's own habits (ibid.). Once real doubt sets in, a man should discard those beliefs that he "cannot help feeling rest on nothing"—just as a reformed Muslim ought to change his views on the proper relations of the sexes, or a reformed Catholic ought to change his views on the permissibility of reading the Bible (ibid., p. 122–123). The "integrity of belief" is "more wholesome than any particular belief"; it is thus both immoral and disadvantageous to "avoid looking into the support of any belief from a fear that it may turn out rotten" (ibid., p. 123). Anyone who "confesses" that there is a reality or a truth⁵¹ ought to seek it, and seek it fully, he explains (ibid.). A "clear logical conscience" is a virtue (ibid.). Like all virtues—and "all that we cherish"—it will "[cost] us dear (*sic*)" (ibid.). No matter—"we should not desire it to be otherwise" (ibid.). A man's logical method should be "loved and revered" like his "bride, whom he has chosen from all the world" (ibid.). Having chosen her, "he will work and fight for her," no matter how difficult; he "will strive to be the worthy knight and champion of her from the blaze of whose splendors he draws his inspiration and his courage" (ibid.).

What is the reason for Peirce's efforts to instill doubt among his readers regarding the soundness of the other methods of inquiry? The most obvious explanation is in order

⁵¹ It is worth noting that the definition of truth Peirce presents here—that truth is "distinguished from falsehood" in that it "will carry us to the point we aim at and not astray" if we act on it (ibid., p. 123)—differs significantly from the definition he presented in his review of Berkeley, wherein he defined reality as that on which the community will ultimately agree. The definition of truth presented in "Fixation" in fact bespeaks a heavier reliance on what is external to man than does the earlier definition. It is also consistent with the far less democratic nature of "Fixation" in general. At the same time, reality has an explicitly hypothetical nature in "Fixation"; the existence of reality is presented as an hypothesis, illustrating what Peirce said earlier about philosophy taking its lead from the method of science.

to convince them to adopt the method of science rather than those of *a priori* or authority. However, would not such an effort be at odds with Peirce's earlier point that doubt can not be forced (ibid., p. 115)? Recognizing this, we are pointed to the suggestion that Peirce has a more profound motive: to protect the search for truth—pure science—simply. If doubt can not be forced, it would then seem that Peirce senses that among a group of inquirers—namely, those whose opinions are not settled by the method of authority—there already was much doubt as to the soundness of the *a priori* method. That method has, after all, failed to “deliver our opinions from their accidental and capricious element,” as witnessed by the fact that “metaphysicians have never come to any fixed agreement” (ibid., p. 119). What Peirce in fact needs to do is not to convince his readers that the *a priori* method is insufficient at uncovering truth, but rather convince them that settling opinion about reality is indeed possible. He highlights the virtues of the scientific method and the inadequacies of the other methods, then, in order to argue that the scientific method will not fail to uncover reality—to lead to a consensus of opinion—in the ways the other methods have failed. In other words, Peirce is aiming to convince his readers that knowledge is possible. This understanding complements well our earlier hypothesis that behind Peirce's philosophical project is the goal of motivating men to investigation, as the belief in God had motivated them in the time of the Scholastics.

IV. “How to Make Our Ideas Clear”

In “How to Make Our Ideas Clear”—published in January 1878 as the second essay in the series on science—Peirce introduces the logical maxim that James later refers to as the defining statement of pragmatism:

Consider what effects, which might conceivably have practical bearings, we conceive the object of our conception to have. Then, our conception of these effects is the whole of our conception of the object. (1878/1992, p. 132)

We will closely examine this essay to better understand what lies behind this maxim. A close examination will also illuminate the relationship between philosophy and science that Peirce envisions—how philosophy can and should aid natural science—and why philosophy ought to be pursued. In addressing these issues, Peirce ties together features of his thought that, up until this point, might have seemed unconnected—such as the role of induction in the formation of habit and the connection between habit and the mental states of doubt and belief. This essay continues in the somewhat naturalistic vein that we have seen throughout his writings thus far; the crux of the essay is concerned with deriving the core logic, and thus purpose, of a mental feature by observing how it functions. This is reminiscent of the presentation of thoughts as signs in “Questions Concerning Certain Faculties Claimed for Man,” and seems akin to treating features of thought as an evolutionary biologist treats the physical features of a species. Similarly, Peirce appears to be trying to derive laws of logic that are comparable to the physical science’s laws of nature. Let us explore how these components come together in the essay.

a. Logic and Clear Ideas

Peirce explains that logic ought to help us better understand the meaning of our ideas. We see here one important complementary role philosophy ought to play in relation to natural science:

We have a right to demand that logic shall teach us . . . how to make our ideas clear. . . . To know what we think, to be masters of our own meaning, will make a solid foundation for great and weighty thought. (1878/1992, p. 126)

For the individual man, “a few clear ideas are worth more than many confused ones” (ibid., p. 127). A clear understanding can help direct one away from futile inquiry, and toward a fruitful direction: It is only by clearing up his thought that a man can avoid wasting his “intellectual vigor” on a “single unclear idea” that might consume him for years, but ultimately prove fruitless—like the “circle-squarers” (ibid.).

The modern study of logic—dating to Descartes’s “reconstruction of philosophy” (ibid., p. 125)—had itself sought ideas that are “clear and distinct,” but it did not provide adequate guidance for distinguishing clear ideas from those that merely seemed to be (ibid., p. 124–125). We see here a combination of Peirce’s presentation of the scholastics and the Cartesians in “Some Consequences of Four Incapacities” coming together with his presentation of the methods of authority and *a priori* in “The Fixation of Belief.” Peirce once again explains that in Descartes’s efforts “to discard the practice of the schoolmen of looking to authority as the ultimate source of truth,” he replaced their standard with “a more natural fountain of true principles,” which he thought he found “in the human mind” (ibid., p. 125). The way his method of “apriority” was to work was that “self-consciousness was to furnish us with our fundamental truths, and to decide what was agreeable to reason” (ibid.). True ideas were to be denoted by their clearness and distinctness, though Descartes “did not explain himself with precision” as to what these two terms meant (ibid.). Peirce adds here that “the most essential point of the Cartesian

philosophy” is that accepting “propositions which seem perfectly evident to us is a thing which, whether it be logical or illogical, we cannot help doing” (ibid., p. 126).

Because of its shortcomings, Descartes’s method is no longer fit to “modern uses” (ibid.) and a new “method of attaining to a more perfect clearness of thought” is needed (ibid., p. 125).

That much-admired “ornament of logic”—the doctrine of clearness and distinctness—may be pretty enough, but it is high time to relegate to our cabinet of curiosities the antique *bijou*, and to wear about us something better adapted to modern uses. (ibid., p. 126)

Descartes’s method is, in short, now outdated. (We see here for at least the second time that what is contemporary is presented as de facto good, and what is outdated as bad.)

The “principles set forth” in “The Fixation of Belief” provide far better guidance for attaining clear and distinct ideas than do Descartes’s principles. Quietly replacing what he had termed “inquiry” with “thought” simply, Peirce reminds the reader that in the previous essay we have found that “the action of thought is excited by the irritation of doubt,” ceasing “when belief is attained” (ibid., p. 127). From this phenomenon—which Peirce presents here as more or less established fact—he explains that we learn the essence of thought: “the production of belief” is the “sole function” of thought (ibid.). This point is made more forcefully later in the essay: Thought’s “sole motive, idea, and function, is to produce belief” (ibid., p. 129). Other possible results of thought—such as amusement—are only incidental to it (ibid.).

The soul and meaning of thought, abstracted from the other elements which accompany it, though it may be voluntarily thwarted, can never be made to direct itself toward anything but the production of belief. (ibid.)

Peirce—with his framework that appears to have a biological character—then presents the behavior of thought as if it acts according to a law of nature, in a conclusion reminiscent—though an inverse—of Newton’s first law of motion⁵²: “Thought in action has for its only possible motive the attainment of thought at rest” (ibid.). The suggestion that Peirce is treating thought as a naturalistic phenomenon is further supported by his remark that “it is as if I had described the phenomena as they appear under a mental microscope” (ibid., p. 127). It seems, in short, that Peirce is trying to determine rules of logic that imitate modern science’s “laws[s] of Nature” (ibid., p. 135).

b. Doubt and Belief and Deriving the Purpose of Thought

Peirce here elaborates on the nature of doubt and belief. Doubt is what arises when one hesitates about how to act—when there is no habit, denoting belief, on how to act in a given circumstance. “Most frequently doubts arise from some indecision, however momentary, in our action” (ibid., p. 128). As we discussed above, doubt sets thought in motion: “it stimulates the mind to an activity which may be slight or energetic, calm or turbulent” (ibid.). We have “attained belief” when “we find ourselves decided as to how we should act under such circumstances as those which occasioned our hesitation” (ibid.).

Belief is something “we are aware of,” something that “appeases the irritation of doubt,” and something that “involves the establishment in our nature of a rule of action . . . a *habit*” (ibid., p. 129). Thus we see Peirce’s earlier thought on habits and induction

⁵² Newton’s first law of motion: a body in constant motion will remain in motion unless acted upon by an external force; or, as Peirce states it later in the essay: “If bodies were left to themselves, without the intervention of forces, every motion would continue unchanged both in velocity and in direction.” (1868/1992, p. 133)

brought together with what he has said more recently about the mental states of doubt and belief. As the irritation of doubt is appeased, “thought relaxes, and comes to rest for a moment when belief is reached” (ibid.). Belief is in reality only a temporary resting place, though: because its essence is to be a “rule of action,” further action will raise “further doubt and further thought” (ibid.). Thus while belief is a “stopping-place,” it is at the same time “also a new starting-place for thought” (ibid.).

Peirce provides a mundane example to illustrate what he has in mind by doubt and belief.

If there is the least hesitation as to whether I shall pay the five coppers or the nickel (as there will be sure to be, unless I act from some previously contracted habit in the matter), though irritation is too strong a word, yet I am excited to such small mental activity as may be necessary to deciding how I shall act. (ibid., p. 128)

That is real doubt. Peirce explains he provides this example because he wants to make clear that he does not refer to the mental states of belief and doubt only in the context of “religious or other grave discussions” (ibid.).

Peirce here also explains that fake doubt—“feigned hesitancy”—about how one should act also plays “a great part in the production of scientific inquiry” (ibid.). This latter point is puzzling: It seems to be in opposition to what he said earlier in “The Fixation of Belief” about the difference between real and fake doubt. Perhaps what is said here can be seen as complementing, or clarifying, rather than contradicting what was said earlier if we understand that the key Peirce is getting at here is *acting*: doubt—whether real or feigned—is productive only if it involves the question of how one is to act. An example he provides of feigned doubt that arises out of boredom supports this suggestion:

I have . . . to wait in a railway-station, and to pass the time I read the advertisements on the walls, I compare the advantages of different trains and different routes which I never expect to take, merely fancying myself to be in a state of hesitancy, because I am bored with having nothing to trouble me. (ibid.)

Descartes's "[theoretical] . . . skepticism" (ibid., p. 125) as to whether or not he existed would not fit this bill because his asking the question reveals his true beliefs on the matter—that he had enough belief in his existence to perform the action of asking—thus indicating that he was merely taking part in a mental exercise rather than pursuing a solution to a real doubt. In other words, Descartes's doubt was not real because if it were, he would not have been able to so much as ask a question.

Because the essence of belief is habit—a rule of action—a belief ought to be understood as the action it entails (ibid., p. 129). This means the same habit denotes equivalent beliefs:

Different beliefs are distinguished by the different modes of action to which they give rise. If beliefs do not differ in this respect, if they appease the same doubt by producing the same rule of action, then no mere differences in the manner of consciousness of them can make them different beliefs, any more than playing a tune in different keys is playing different tunes. (ibid., p. 129–130)

This point was hinted at in "Some Consequences of Four Incapacities," as we observed in the previous chapter, and stated more explicitly in the review of Berkeley. Understanding this point about meaning can clear up metaphysical confusion and help us get a better grasp of our muddled ideas by allowing us to recognize when two ideas that might seem different are in fact the same:

Imaginary distinctions are often drawn between beliefs which differ only in their mode of expression. . . . Such false distinctions do as much harm as the confusion

of beliefs really different, and are among the pitfalls of which we ought constantly to beware, especially when we are upon metaphysical ground. (ibid., p. 130)

By a similar token, Peirce warns against mistaking “a mere difference in the grammatical construction of two words for a distinction between the ideas they express” (ibid.).

To protect against such confusion of thought—or, as Peirce puts it, “these sophisms”—we need only to remember that the

function of thought is to produce habits of action; and that whatever there is connected with a thought, but irrelevant to its purpose, is an accretion to it, but no part of it. (ibid., p. 131)

Any “unity among our sensations” that has no bearing on how we should “act on a given occasion” is not, then, to be considered thought (ibid.). It follows from this understanding of the essence of thought that the meaning of something is best understood as the habit of action it entails: “To develop its meaning, we have . . . simply to determine what habit it produces, for what a thing means is simply what habit it involves” (ibid.). It is thus “what is tangible and practical” that is the “root of every real distinction of thought” (ibid.).

c. Peirce’s Logical Maxim

From his determination that the function of thought is to create habits of action—in other words, having derived the essence of thought based on his analysis of the mental states of belief and doubt—Peirce derives his logical maxim:

Consider what effects, which might conceivably have practical bearings, we conceive the object of our conception to have. Then, our conception of these effects is the whole of our conception of the object. (ibid., p. 132)

This is the maxim that William James publicized as the pragmatic maxim; it is through the application of this maxim that logic can help us better understand what we think. (It is important to note that Peirce himself remarks in this essay that an idea may be clear without it being true (ibid., p. 141).)

To illustrate how this rule of reasoning can help clear up confusion, Peirce turns to the example of transubstantiation—specifically, the disagreement between Protestants and Catholics on the matter. The disagreement concerns whether the wine and wafers used in the communion sacrament are literally blood and flesh or only metaphorically so.

The Protestant churches generally hold that the elements of the sacrament are flesh and blood only in a tropical sense; they nourish our souls as meat and the juice of it would our bodies. But the Catholics maintain that they are literally just that; although they possess all the sensible qualities of wafer-cakes and diluted wine. (ibid., p. 131)

Peirce explains we can cut through the disagreement by applying his maxim of meaning. Let us examine our conception of wine: according to Peirce's maxim, our conception of wine is comprised of our beliefs about its properties and is indicated to us by how we are habituated to act when we come across it.

Such beliefs are nothing but self-notifications that we should, upon occasion, act in regard to such things as we believe to be wine according to the qualities which we believe wine to possess. . . . Thus our action has exclusive reference to what affects the senses, our habit has the same bearing as our action, our belief the same as our habit, our conception the same as our belief; and we can consequently mean nothing by wine but what has certain effects, direct or indirect, upon our senses. (ibid.)

Thus to “talk of something as having all the sensible characters of wine, yet being in reality blood, is senseless jargon” (ibid.). By applying Peirce’s maxim, we determine that Catholics and Protestants do not in fact disagree “about the elements of the sacrament” (ibid., p. 132).

Having examined transubstantiation according to his rules of logic, Peirce then claims to back off from religious proclamations: “it is not my object to pursue the theological question” (ibid., p. 131). It is hard to take this claim seriously, of course, given that he chose this example of transubstantiation as the first example with which to demonstrate the application of his maxim. The implication of this example is that despite what a pious Catholic might think, his real belief is that the liquid served during communion is simply wine, and not Christ’s blood. The implication more broadly is that Peirce’s maxim ought to be applied to theological disputes—if, that is, a person wants to have a clear understanding of what he thinks. It would of course be possible for an individual to—either willfully or ignorantly—remain in a state of confused ideas. Most men, after all, are fated to remain guided by the method of authority.

Peirce next applies his maxim to several modern metaphysical concepts—“hard,” “weight,” and “force”—before ultimately returning to the concept of “reality.” What we mean by “*hard*” is simply that a hard thing “will not be scratched by many other substances” (ibid., p. 132). With regard to “weight,” heaviness indicates “simply that, in the absence of opposing force,” a heavy body “will fall” (ibid., p. 133). Peirce stresses that “the idea of Force” is especially important to comprehend because of the “principal part” it has played in “directing the course of modern thought, and in furthering modern social development” (ibid.).

This is the great conception which, developed in the early part of the seventeenth century from the rude idea of a cause, and constantly improved upon since, has shown us how to explain all the changes of motion which bodies experience, and how to think about all physical phenomena; which has given birth to modern science, and changed the face of the globe. (ibid.)

It is, in addition, a concept “muddled” in “men’s minds”: it is often spoken of as a “mysterious entity” in works of philosophy, indicating that many despair “of ever getting a clear notion of what the word means!” (ibid., p. 136). Peirce’s rule of meaning prescribes that we “begin by asking what is the immediate use of thinking about force”: it is by force that we “account for changes of motion,” and thus it should be understood (ibid., p. 133). The conception of force embodies the “grand fact” that

If the actual changes of motion which the different particles of bodies experience are each resolved in its appropriate way, each component acceleration is precisely such as is prescribed by a certain law of Nature, according to which bodies in the relative positions which the bodies in question actually have at the moment, always receive certain accelerations, which, being compounded by geometrical addition, give the acceleration which the body actually experiences. (ibid., p. 135)

This is all the idea of force represents. It is a “self-contradiction” to say that “we know what the effects of force are” but we do not understand “what force itself is” (ibid., p. 136). To “say that a force *is* an acceleration, or that it *causes* an acceleration, is a mere question of propriety of language”; there is no more difference in meaning between the two phrases as there is “between the French idiom ‘*Il fait froid*’ and its English equivalent ‘*it is cold*’” (ibid.).

d. Reality

Peirce returns to the concept of reality, which we have seen he has had difficulty both defining and justifying. Up until now Peirce has defined reality as that which is external to men, and that which men will agree upon at the end of inquiry—variously emphasizing one or the other of these definitions in the different essays. In “The Fixation of Belief,” the notion of reality was a late development of sorts: it distinguished the method of science from the other methods of settling doubt, but by the same token, was portrayed as less influential in the development of knowledge as compared with man’s social impulse. Confirming our observations regarding the trickiness Peirce sees in this concept, Peirce remarks here how the concept of reality is both used with ease by children while it would at the same time “puzzle most men . . . to give an abstract definition of the real” (ibid.). Peirce then repeats the definition of reality on which he seems to be relying more heavily of late: “that whose characters are independent of how you or I think is an external reality” (ibid.). He explains that this definition is reached when you try to distinguish what is real from a figment of imagination—from what one has dreamt, for example (ibid., p. 136–137). Peirce nonetheless admits that “however satisfactory” this definition of reality “may be found” to be, it is still less than “perfectly clear” (ibid., p. 137).

To apply Peirce’s maxim of understanding in order to clear up our understanding of this concept, we must consider “the peculiar sensible effects which things partaking of it produce” (ibid.). Reality’s effect is to act as a backdrop for all our beliefs about that which exists around us: “The only effect which real things have is to cause belief, for all

the sensations which they excite emerge into consciousness in the form of beliefs” (ibid.). The concept of reality thus acts as a necessary hypothesis as we engage with the world.

e. Methods for Settling Doubt

At this point in the essay, Peirce returns to discussing the various methods of settling doubt. His focus here is not man’s overwhelming social impulse—that which was presented in “Fixation” as the primary logic that drives man’s transition from one method of settling doubt to another. Rather, the explanation given here of that which drives man forward along the trajectory of methods of understanding is man’s natural propensity for *reasoning*: “Reason is too natural to men” for “the method of tenacity” to have ever “prevailed exclusively” (ibid.).

Peirce explains that different methods for settling doubt can reign at the same time, often even in individual men. He cites a scholastic thinker who is guided by the method of tenacity at the same time that he is guided by the method of authority, and provides a humorous example of his having made up an explanation out of thin air:

When Scotus Erigena is commenting upon a poetical passage in which hellebore is spoken of as having caused the death of Socrates, he does not hesitate to inform the inquiring reader that Helleborus and Socrates were two eminent Greek philosophers, and that the latter having been overcome in argument by the former took the matter to heart and died of it. (ibid.)

Peirce adds that “the real spirit of Socrates . . . would have been delighted to have been ‘overcome in argument,’ because he would have learned something by it” (ibid.).

During the time of the scholastics, when the “method of authority prevailed,” truth was understood simply as “the Catholic faith” (ibid., p. 138).

All the efforts of the scholastic doctors are directed toward harmonizing their faith in Aristotle and their faith in the Church, and one may search their ponderous folios through without finding an argument which goes any further. (ibid.)

In such times, “the idea of loyalty [replaces] that of truth-seeking” (ibid.). In the *a priori* age harmony of one’s system is more important than is what one can learn from the facts (ibid.). Men of this system do not expect consensus of opinions to be reached, in other words, for belief to ever “be settled” (ibid.).

It is of course different with the method of science. Those who follow it seek to confirm theories with facts, and thus to persuade all others who follow it.

The followers of science are fully persuaded that the processes of investigation, if only pushed far enough, will give one certain solution to every question to which they can be applied. (ibid.)

Key to the method of science is that you can approach a question from various different angles, and still reach the same fated conclusion:

One man may investigate the velocity of light by studying the transits of Venus and the aberration of the stars; another by the oppositions of Mars and the eclipses of Jupiter’s satellites; a third by the method of Fizeau; . . . a ninth, may follow the different methods of comparing the measures of statical and dynamical electricity. They may at first obtain different results, but, as each perfects his method and his processes, the results will move steadily together toward a destined centre. (ibid.)

In other words, the method of science can point its practitioners to those opinions fated to be final—those opinions that experience will not bring into doubt, and to which all men who investigate (albeit according to the method of science) can assent.

Let us note, of course, the assumption that there is one fated opinion at which men who observe nature will arrive. This assumption is another way of stating the assumption

of reality—the existence of something real outside of individual men that is real for all men. We have seen, of course, this assumption quietly justified in “Grounds of Validity of the Laws of Logic,” and more explicitly in “The Fixation of Belief” because of its indispensability for rationality and the fact that it is not brought into doubt by the activity of reason.

In this essay, rather than bringing attention to the assumption being employed here and its justification, Peirce talks up the method of science’s power at pointing inquirers toward the fated opinion, in almost a mystical way. He explains that even if “different minds” start out “with the most antagonistic views,” “the progress of investigation” will carry “them by a force outside of themselves to one and the same conclusion” (ibid.).

This activity of thought by which we are carried, not where we wish, but to a foreordained goal, is like the operation of destiny. No modification of the point of view taken, no selection of other facts for study, no natural bent of mind even, can enable a man to escape the predestinate opinion. (ibid.)

That science should point to one “predestinate opinion” is a “great law” that is “embodied in the conception of truth and reality” (ibid., p. 138–139).

The opinion which is fated to be ultimately agreed to by all who investigate, is what we mean by the truth, and the object represented in this opinion is the real. That is the way I would explain reality. (ibid., p. 139)

As we said, if there is something independent of one man that is true of all men, the scientific method—which bases itself on those external facts—is the way to uncover it.

f. The Nature of Reality and Truth

At this point Peirce enters into a discussion in which he admits the seeming tension between the two definitions of reality he has given—(1) that truth is what is external to all men, and (2) that truth is what men ultimately think—and explains how the two positions are in fact entirely reconcilable, or in fact, the same. For one thing, truth understood as what men ultimately think is different from truth being dependent on what a particular group of men think:

But the answer to this is that, on the one hand, reality is independent, not necessarily of thought in general, but only of what you or I or any finite number of men may think about it; and that, on the other hand, though the object of the final opinion depends on what that opinion is, yet what that opinion is does not depend on what you or I or any man thinks. (ibid., p. 139)

Circumstances may postpone the arrival of the true opinion for a long time, and maybe indefinitely:

Our perversity and that of others may indefinitely postpone the settlement of opinion; it might even conceivably cause an arbitrary proposition to be universally accepted as long as the human race should last. (ibid.)

The nature of the true opinion would, nonetheless, not change: “Yet even that would not change the nature of the belief, which alone could be the result of investigation carried sufficiently far” (ibid.). To repeat: Truth does not depend at all on the opinions of any group of men at any given time, or where investigation does end up. It is what investigation ought to uncover, given sufficient time.

Peirce moreover remains sanguine that if the human race were to be extinguished, other rational creatures would be capable of further investigation and thus of uncovering

the true opinion—in a claim that reminds the reader of Kant’s extension of moral capabilities to all reasonable beings, not just human beings.

If, after the extinction of our race, another should arise with faculties and disposition for investigation, that true opinion must be the one which they would ultimately come to. “Truth crushed to earth shall rise again,” and the opinion which would finally result from investigation does not depend on how anybody may actually think. (ibid.)

Thus arbitrary circumstances or an asteroid extinguishing man from the earth will not affect what the true opinion is. The reality of the true opinion—“of that which is real”—depends simply on “the real fact that investigation is destined to lead, at last, if continued long enough, to a belief in it” (ibid.). All the true opinion depends on is that there be sufficient time for reality to be investigated.

In other words, as we have said, truth understood as dependent on what men think at the end of inquiry is not subjective—the process of inquiry will shed what is accidental or arbitrary about an opinion, and it will be agreed to by all who investigate. This is at the same time, importantly, a very human truth—the limit of what is available to the human mind to comprehend about the world. This is how Peirce’s two formulations of reality are reconciled.

g. Reason

At the end of this essay, Peirce provides some clues about that question we have been asking throughout: Why is reason desirable, such that it justifies the assumption of reality and warrants our pursuit? Peirce explains that true ideas—which he seems to equate with ideas that are “vital and procreative”—advance civilization and make up “the

dignity of man” (ibid., p. 141). This image begins to account for Peirce’s pursuit of philosophy, and his rhetorical attempts to attract students similarly to its pursuit. We will continue to explore this issue in the following chapters.

V. In Sum

Although Peirce sounds like a relativist at times—most especially when he suggests in the 1871 review of Berkeley that what men really want is settled opinion, however it is settled, including by the “fagot and the rack”—in fact his theory of truth points to what is independent of man and thus true for all men. Truth is a human concept, but is constrained by what is real and external to man—it can not be chosen or created. Truth is the limit of what is available to the human mind, and what is independent of any particular human mind.⁵³ It is thus available to any human mind, though it is not dependent on what any person or group of people happens to think.

Because, among the methods of settling doubt, only the scientific method tests propositions against experience, only the scientific method promises to home in on this truth and shed what is merely arbitrary or accidental. Most people will remain governed by the method of authority, so practically speaking we do not expect all men to reach the true opinion. Rather, we approach inquiry with the hope that it is the fate of some inquirers to uncover those propositions that will not be unsettled by further experience, and to which others who have sufficiently investigated the matter will assent.

⁵³ Buchler (1940) has similarly understands “truth” for Peirce as being independent of what any particular community of inquirers thinks (p. xiv).

We have seen that science relies on the assumption of reality—not necessarily of the assumption of a permanent nature, but simply that there is something real outside of the individual human mind, to which the human mind has access and will thus uncover given sufficient time for inquiry. This assumption is behind any investigation for truth or dissatisfaction with a belief. It is also justified because, in addition to it not being unsettled—but is, rather, affirmed—by investigation, it is also necessary for the sake of reason. This raises the question of why reason ought to be pursued. Why ought we pursue knowledge?

As we have seen thus far, Peirce explains that true ideas make up the “dignity of man” (1878/1992, p. 140). Truth is desired simply, and not for the purposes of being used for man’s practical advantage. Like Kant’s good will, the pursuit of reason is a good that might interfere with our well-being—it might “[cost] us dear” (1877/1992, p. 123),⁵⁴ but such is the case with all that we “cherish” (ibid.). The noble nature of truth justifies these costs.

Philosophy provides a foundation for natural science by articulating the nature of truth. By explaining the nature of the knowledge available to mankind, Peirce appears to be aiming to motivate men to inquiry. This is necessary because we modern men “believe in nothing” like the scholastics believed in God—a belief that motivated them to great feats (1871/1992, p. 86). In explaining that it is the pursuit of truth that makes up the dignity of man, Peirce aims to ignite a passion for the pursuit of truth in his reader, a passion that might replace the powerfully motivating belief in God. In an age of

⁵⁴ See the Introduction chapter for a comparison of reason for Peirce and Kant’s good will.

skepticism,⁵⁵ this passion needs to be ignited, but also educated. Peirce thus simultaneously tries to arouse his audience to the pursuit of truth by making clear that truth is attainable, while also explaining the nature of this truth so as to modify expectations. If you think you want to know the “thing-in-itself” behind the phenomenon, you are mistaken; human knowledge is of phenomena, and this knowledge grows richer through experience—both one’s own experience, and the experience of others.

Given the nature of knowledge, we must begin inquiry where we actually are. We begin, in other words, at our common sense understanding. We maintain our common sense understanding until it runs into problems in our experience—when a “real and living doubt” as to how to act arises (1877/1992, p. 115). Once a doubt arises, we investigate. Investigating according to the scientific method consists of positing hypotheses about the world and then checking them in experience. With its investigation into the nature of belief, doubt, truth and inquiry, philosophy thus aids natural science by steering scientists away from meaningless questions or futile tasks, and toward questions about which there really is some doubt.

The study of logic similarly has a complementary role to play in relation to natural science. It aids investigation by clarifying the meaning of our ideas—by helping us to be “masters of our own meaning” (1878/1992, p. 126). Peirce’s logical maxim—that an idea means what sensible effects we expect of it—aims to clear up our understanding by explaining what abstract concepts like “force” mean; alerting us when two concepts or

⁵⁵ Peirce explained in an 1863 talk that the skepticism raised by Kant’s *Critique of Pure Reason*—“perhaps, the greatest work of the human intellect”—profoundly affected all subsequent thought (1863/1958 p. 7–8).

words that appear to mean different things are in fact synonymous; and cutting out what is extraneous to a concept's core meaning. This logical maxim results from Peirce's analysis of the mental states of doubt and belief, and focuses on the "tangible and practical" of an idea (ibid., p. 131).

CHAPTER 3

In a paper delivered in 1898 to the University of California (Berkeley) Philosophical Union, William James introduces the doctrine of “pragmatism” and attributes it to Peirce (James 1898/2011, p. 66). James credits Peirce—“one of the most original” of his contemporaries—as having set him upon the direction of the pragmatic “trail of truth,” and explains that he first heard Peirce speak of the doctrine of pragmatism in Cambridge, Massachusetts, in the early 1870s (*ibid.*). Following James’s public introduction of pragmatism, many begin writing about the doctrine, claiming to be among its adherents. This, coupled with criticism Peirce receives regarding his 1878 formulation, prompts Peirce to revisit pragmatism in the last decades of his life. Beginning with a series of lectures at Harvard in 1903 and continuing until his death in 1914, Peirce seeks to clarify what precisely pragmatism means, upon what foundations it rests, and what follows from it. To better understand Peirce’s doctrine, we will explore this later treatment; our examination will entail an examination into Peirce’s clarification as to what pragmatism means, its nature as a doctrine, and the relationship between pragmatism and metaphysics. In this examination we will explore pragmatism as a common-sense philosophy as well as its connection to scholastic realism.

I. Pragmatism and Pragmatists

Echoing James’s account, Peirce explains that “pragmatism” was a term he “used . . . continually in philosophical conversation since, perhaps, the mid-seventies” (1905c/1998, p. 335). Though its name was not used, its idea was introduced in writing in

the 1878 “How to Make Our Ideas Clear” (1903b/1998, p. 134). Peirce explains that objections raised to pragmatism following the 1878 essay caused him to reexamine his maxim:

I am free to confess that objections to this way of thinking have forced themselves upon me and have been found more formidable the further my plummet has been dropped into the abyss of philosophy, and the closer my questioning at each new attempt to fathom its depths. (ibid., p. 133)

Following James’s 1898 talk, many started writing about pragmatism, alleging to be carrying its torch (1903b/1998, p. 134). The objections raised to pragmatism coupled with Peirce’s desire to distinguish his doctrine from what he saw suddenly coming into vogue—the pragmatism of the “brood of young” philosophers (ibid., p. 134)—prompts him to revisit the doctrine.

On the one hand, Peirce sees some affinity with, or at least a beneficial effect pragmatism has had on, these others who claim to be pragmatists: “It seems to me clear that their approximate acceptance of the Pragmaticist⁵⁶ principle . . . has helped them to a mightily clear discernment of some fundamental truths that other philosophers have seen but through a mist” (1908a/1998, p. 450). Peirce explains that such truths include

their denial of necessitarianism; their rejection of any “consciousness” different from a visceral or other external sensation; their acknowledgement that there are, in a Pragmatistical sense, Real habits . . . ; and their insistence upon interpreting all

⁵⁶ In “What Pragmatism Is” (1905) Peirce renames his doctrine “pragmaticism”: a name “ugly enough” to keep it “safe from kidnapers” (the fate of “pragmatism”) (1905c/1998, p. 335). Because Peirce reverts to using “pragmatism” to refer to his doctrine in later writings, I will continue to do so here as well to avoid confusion. “Pragmatism” and “pragmaticism,” in reference to Peirce, ought to be understood as synonymous throughout this dissertation.

hypostatic abstractions in terms of what they *would* or *might* (not actually *will*) come to in the concrete. (ibid.)

On the other hand, Peirce sees in those who claim to be pragmatists a lack of interest in logic; a concern only with action and consequences and not with the intellectual purport revealed by pragmatism; and a misunderstanding of Peirce's formulation of the nature of truth for the erroneous conclusion that truth is whatever one believes it to be.⁵⁷ In a letter to the Italian pragmatist Mario Calderoni, circa 1905, Peirce explains that pragmatists like "[F. C. S.] Schiller, [William] James, and [John] Dewey" propound "the ultra pragmatism notion that action is the *sole* end and purpose of thought" (1905d, CP 8.205, CP 8.212; emphasis in original). He explains elsewhere that the pragmatism of "Mr. Schiller and the pragmatists of today" seems to be "characterized by an angry hatred of strict logic" (1908a/1998, p. 450). They furthermore confuse what they are satisfied with for what is true:

If Truth consists in satisfaction, it cannot be any *actual* satisfaction, but must be the satisfaction which *would* ultimately be found if the inquiry were pushed to its ultimate and indefeasible issue. (ibid.)

This misguided conception of truth stops inquiry rather than facilitating it; it is used as an excuse to ignore abstract philosophical questions and concepts.

It seems to me a pity they should allow a philosophy so instinct with life to become infected with seeds of death in such notions as that of the unreality of all ideas of infinity and that of the mutability of truth, and in such confusions of thought as that of active willing (willing to control thought, to doubt, and to weigh reasons) with willing not to exert the will (will to believe). (ibid.)

⁵⁷ In contrast to those mentioned in this paragraph, Peirce saw a kindred spirit in Josiah Royce; he thought he was the only one around him who understood what he was getting at.

The concluding remark here reminds the reader of William James's *The Will to Believe*.⁵⁸

II. Pragmatism's Grounding: A Reconsideration

Objections to pragmatism raised since its original formulation lead Peirce to rethink his doctrine's grounding.

I am free to confess that objections to this way of thinking have forced themselves upon me and have been found more formidable the further my plummet has been dropped into the abyss of philosophy, and the closer my questioning at each new attempt to fathom its depths. (1903b/1998, p. 133)

The fact that the pragmatic maxim is useful does not prove that it is true (ibid.). Its logical soundness similarly does not prove its correctness. Peirce points out that Ockham's razor is "no doubt . . . logically sound"; yet,

One may very properly entertain a suspicion of any method which so resolves the most difficult questions into easy problems. . . . We may very well doubt whether a very simple hypothesis can contain every factor that is necessary. Certain it is that most hypotheses which at first seemed to unite great simplicity with entire sufficiency have had to be greatly complicated in the further progress of science. (ibid.)

Neither utility nor logical soundness is sufficient to prove pragmatism's truth; it needs a proof.

Peirce regrets having originally rooted his principle in psychological analysis, as he did by basing the argument for pragmatism in "How to Make Our Ideas Clear" on the nature of belief.

⁵⁸ Another place where Peirce apparently takes a dig at James's pragmatism is in his fourth Cambridge Conferences lecture, where he advocates for the "Will to Learn" (1898, lecture 4, p. 170).

The argument upon which I rested the maxim in my original paper was that *belief* consists mainly in being deliberately prepared to adopt the formula believed in as the guide to action. (ibid.)

There are reasons to doubt that belief simply concerns practical consequences—that it is a “mere nullity so far as it does not influence conduct” (ibid., p. 141). For example: “What possible effect upon conduct can it have . . . to believe that the diagonal of a square is incommensurable with the side?” (ibid.). Peirce admits that this original argument “was so flimsy . . . that I must confess the argument of that essay might with some justice be said to beg the question” (1908a/1998, p. 450).

The problem is not simply that Peirce begged the question with regard to the nature of belief. The larger problem is that a “psychological principle” is ultimately not an adequate resting place for a philosophical argument: “I do not think it satisfactory to reduce such fundamental things to facts of psychology” (1903b, EP 2 p. 140). Rather than stopping at saying that this is how man’s mind works, we must ask why it is that this is how man’s mind works. “Why has evolution made man’s mind to be so constructed?”—in other words, what is it about nature that man’s mind is fitted in this way (ibid.)? If pragmatism were simply based on psychology, then the meaning it yielded would only bespeak that psychology. For it to yield objective truth—truth about that which is independent of the human mind—pragmatism needs to be based on something objective, in other words, also independent of the human mind.⁵⁹

⁵⁹ For a more elaborate discussion on this, see Hookway 1985, p. 285 ff.

III. Pragmatism's Grounding

Because Peirce was dissatisfied with his early psychological grounding of pragmatism—a grounding based on the mental states of belief and doubt and an assertion about what desire lies behind these states—he set about in his later years to provide pragmatism with a firmer grounding. In a series of 1903 lectures at Harvard, Peirce attempts to ground pragmatism upon categories of phenomena, which make up the fundamental components of man's experience in the world. As opposed to the normative sciences—esthetics, ethics, and logic—phenomenology “contemplates phenomena as they are,” “describes what it sees,” and states “what it finds in all phenomena alike” (1903b/1998, p. 143). It is “the science which Hegel made as his starting point” (ibid.). Peirce attempted to ground the normative science on his phenomenology, and in turn to ground his phenomenology on that science which is not positive: namely, mathematics (ibid., p. 144). It seems Peirce thought that to be proved right, pragmatism must not rest on man's psychology, but rather on something objective. Mathematics, as the ultimate foundation, would provide that universal and ideal foundation.

We will not dwell here on his attempted proof of 1903 because Peirce continues to search for firm foundations. What is important to note is Peirce's admission of having considered challenges to pragmatism since its first written formulation, his dissatisfaction with the arguments he has thus far given for it, and his new desire to provide it with firmer foundations. Again, these foundations can not be simply arbitrary or accidental, or to rest on mere utility. To be philosophically compelling, pragmatism has to rest on something objective.

In 1907 Peirce once again looks to ground pragmatism. This time, he grounds it not on the phenomenological categories but rather on his theory of signs. Peirce's theory of signs is a philosophy of mind, an explanation of conscious thought; it gives an account of the relationship between the human mind and the objects that are external to and constraining on the mind.⁶⁰ Semeiotics provides a more objective starting point because it rests on what is independent of the human mind rather than on psychological desires.

Every word, thought, or idea is a sign. A sign is in a three-way relationship between an object, its sign, and the effect of the sign on its interpreter, which Peirce terms the "interpretant."

A sign has . . . three references: first, it is a sign *to* some thought which interprets it; second, it is a sign *for* some object to which in that thought it is equivalent; third, it is a sign, *in* some respect or quality, which brings it into connection with its object. (1868b/1992, p. 38)

A sign has three kinds of interpretants: feelings, effort, and intellectual (1907/1998, p. 430). The intellectual meaning of a sign is a consequence of a sign upon the mind (*ibid.*, p. 431); of a general nature (*ibid.*, p. 418); and concerns what is real, what is independent of what any particular mind might think—it is upon the intellectual interpretant that "arguments concerning objective fact may hinge" (*ibid.*, p. 421). The intellectual meaning of a sign can be given by a verbal definition (*ibid.*, p. 430). But the words that make up a definition are themselves signs that need interpretation (*ibid.*). "This

⁶⁰ See, e.g., Short (2004); Skagestad (2004). Short (2004) explains that the "term 'semeiotic' is a transliteration of the Greek word Locke introduced, at the end of his 1690 *Essay*, to name a new 'doctrine of signs.'" Nonetheless, Short continues, "it should be emphasized . . . that Peirce's concept of thought was Kantian, not Lockean: thought, for Peirce, is always conceptual, hence, general in content" (p. 216).

consideration compels us to seek elsewhere than among signs . . . since they are all signs, for ultimate intellectual interpretants” (ibid.).⁶¹

Experimental investigation will show that to believe the concept in question is applicable to anything is to be prepared under certain circumstances, and when actuated by given motives, to act in a certain way (ibid., p. 432). “Under given conditions, the interpreter will have formed the habit of acting in a given way, whenever he may desire a given kind of result” (ibid., p. 418). Habits rest not on other signs—intellectual interpretants themselves in need of definition—but rather on what is external to and constraining on the mind. Habits are thus the ultimate logical interpretants—they are the “real and living logical” meaning of a concept (ibid., p. 418).⁶² It is through our habits that our inner world acts upon the outer world (ibid., p. 419).

Peirce illustrates what he means with a problem of mathematics—“experimentation in the inner world” (ibid., p. 418). Thinking about a “collection of seventeen single members involves . . . the act of counting in the imagination” (ibid., p. 432). This involves generalization: “the action must be generalized into a habit connected with the predication of seventeen” (ibid.). Generalizing one’s effort “is habit” (ibid.). Habit, as opposed to mere energetic action, has the generality that an ultimate intellectual

⁶¹ Notice the difference between this late theory of semiotics and the early theory as it was introduced in the 1868 “Some Consequences of Four Incapacities”—examined in this dissertation’s first chapter—where it was signs all the way down. Short (2004) explains that “Many writers have adopted a version of Peirce’s early theory as if it were his only theory of signs, from which they have derived ideas of ‘unlimited semiosis’ (Eco 1976: 68–72) and ‘indefiniteness of reference’ (Derrida 1974: 49)” (Short 2004, p. 237).

⁶² Here we see here for the first time Peirce bringing together his pragmatism and semeiotics, thereby making each stronger than they were by themselves. Short (2004) calls this a “fundamental revolution in doctrine,” and explains that this joining of pragmatism and semeiotics is for both doctrines “a step away from a too extreme intellectualism” (p. 228–229).

interpretant requires (ibid., p. 418). A description of the habit—action in response to certain stimuli with the intention of a certain result—is the “the most perfect account of a concept that words can convey” (ibid.).

This semeiotic examination of meaning has thus led us to the pragmatic maxim.

Consider what effects, which might conceivably have practical bearings, we conceive the object of our conception to have. Then, our conception of these effects is the whole of our conceptions of the object. (1878/1992 p. 132)

One’s habituated response to a concept reveals that concept’s intellectual meaning. Peirce explains to Calderoni that pragmatism was never about conduct but rather always about habit:

I deny that pragmaticism as originally defined by me made the intellectual purport of symbols to consist in our conduct. On the contrary, I was most careful to say that it consists in our *concept* of what our conduct *would* be upon *conceivable* occasions. (1905d, CP 8.208)

The pragmatic maxim aims to home in on a matter’s experiential truth, purifying it of what is accidental or subjective. It is the logical application of the scientific method—it checks our understanding with that which is real, in other words, which is external to how any particular mind thinks (1907/1998, p. 400–401).

IV. Revisiting the Meaning of Pragmatism

The popularization of pragmatism prompts Peirce to clarify its meaning—among other reasons, because he is afraid James’s formulation had repelled “many thinkers whom I should reckon among pragmatists” (1907/1998, p. 421). He clarifies that the pragmatic maxim is a maxim of logic, not metaphysics; moreover, it does not scoff at

metaphysics the way that positivism does. Pragmatism is a common-sense philosophy, but of a critical nature. Peirce also understands pragmatism to support scholastic realism, in contrast to the nominalism of modern philosophy.

a. Logic, Not Metaphysics

In a 1903 lecture at Harvard, Peirce clarifies that, in contrast to that of the “brood of young” philosophers who have begun to write about pragmatism, his pragmatism is not a “sublime principle of speculative philosophy” (1903b/1998, p. 134). He similarly writes to Calderoni that “Pragmatism is not a system of philosophy. It is only a method of thinking” (1905d, CP 8.206). In a 1907 essay he explains that “Pragmatism is, in itself, no doctrine of metaphysics” (1907/1998, p. 400). Rather, it is a doctrine of logic, which aims at uncovering the intellectual content of an idea—that upon which “objective fact may hinge” (ibid., p. 421). The pragmatic maxim, by pointing to the effects we conceive of an object having—in other words, the habits that are at the root of our understanding—aims at identifying this intellectual core.

The pragmatic maxim is essentially applying the “experimental method”⁶³ to ideas (ibid., p. 400). It cuts out what is extraneous, or beside the point, in a belief while highlighting what is essential to it. This future-oriented maxim “eliminates” an idea’s “sentential element” and translates its meaning based on how it is “applicable to human conduct” (1905c/1998, p. 341). The maxim highlights the “very essence or reality of what” a word “signifies” (1905c/1998, 342).

⁶³ That same method “by which all the successful sciences . . . have reached the degrees of certainty that are severally proper to them today” (1907/1998, p. 400–401).

This maxim of logic is a modern day “Ockham’s razor,” ready to “clean shave off” any talk of “entities of whose existence you can know nothing” (1905c/1998, p. 336).

What the pragmatist has his pragmatism for is to be able to say, Here is a definition and it does not differ at all from your confusedly apprehended conception because there is no *practical* difference. (1903b/1998, p. 141)

Pragmatism enables an inquirer to “acquire full mastery” of the meaning of a concept by teaching one to “recognize the concept under every disguise” (1908a/1998, p. 447). It is a “wonderfully efficient instrument” (1903b/1998, p. 133). “There is no doubt . . . that pragmatism opens a very easy road to the solution of an immense variety of questions” (ibid., p. 139).

b. Dismiss Make-Believes: Doubt, Belief, and Inquiry

In his 1905 essay “What Pragmatism Is,” Peirce explains that all of the “preliminary propositions” of pragmatism “might . . . be included under the vague maxim, ‘Dismiss make-believes’” (1905c/1998, p. 335). Among such “make-believes” that pragmatism opposes are Cartesianism and British empiricism, each of which “take[s] its start from one or another state of mind in which no man . . . actually is” (ibid., p. 335–336).

One proposes that you shall begin by doubting everything, and says that there is only one thing that you cannot doubt, as if doubting were “as easy as lying.”⁶⁴ Another proposes that we should begin by observing “the first impressions of sense,” forgetting that our very percepts are the results of cognitive elaboration. (ibid., p. 336)

⁶⁴ “As easy as lying” is quoted from Shakespeare’s *Hamlet*, in a line delivered by the title character toward the end of act 3, scene 2.

Pragmatism recognizes that inquiry can only legitimately start from the place that men actually are, with all of the understanding that one has thus far developed in one's life:

In truth, 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. (ibid.)

Moreover, Peirce adds, if you even could “divest yourself” of the cognitions you necessarily bring to the outset of inquiry, knowledge would thereby be made impossible (ibid.).

Belief and doubt denote the knowledge one has gathered through experience of the world. A belief is a “habit of mind” that “[endures] for some time,” mostly unconsciously (1905c/1998, p. 336). Beliefs are evident whenever a man acts with intention (ibid., p. 341). This habit lasts until “it meets with some surprise that begins its dissolution”; until that time, it is “perfectly self-satisfied” (ibid., p. 337).

Doubt, on the other hand, being a “privation of habit,” promotes “erratic activity” until the state of belief—the formation of a habit—takes its place (ibid.). A belief is genuinely brought into question—into doubt—when it is shaken by experience: “Genuine doubt always has an external origin, usually from surprise” (1905b/1998, p. 348).

Pragmatism helps men thus clarify that when they are after the ““Truth,”” what they are really after is a “state of belief unassailable by doubt” (1905c/1998, p. 336). While a belief is largely held unconsciously, once its self-satisfaction is dissolved and it is brought into doubt, it is capable of self-controlled modification (ibid., p. 337).

Experiment aids in fixing beliefs that are unshaken by future experience (ibid.).

To promote productive inquiry, pragmatism cautions against paper doubts: “Do not make believe; if pedantry has not eaten all the reality out of you, recognize, as you must, that there is much that you do not doubt, in the least” (ibid.). What you do not truthfully doubt, you believe; this, to you, is the “infallible, absolute truth” (ibid.). Inquiry must begin from genuine doubt, in other words; it ought to take for granted the common-sense experience of the world.⁶⁵

c. Belief and Truth

The habit that results from “self-control[led]” thought is “the state of fixed belief, or perfect knowledge” (1905c/1998, p. 340). A belief that is not further shaken by experience, that one “cannot in the least help believing,” is, “justly speaking,” not a wrong belief (ibid.). In other words, it is not wrong for the individual to hold such a belief. There is nonetheless an important distinction between an individual’s belief and absolute truth.

Knowledge exists at the level of men at large, not at the level of the individual person. Thought occurs in language—in signs that are public or communal by nature. Thus ultimate knowledge—absolute truth—can not be for an individual alone, but rather must assuage the doubts of the community.

A person is not absolutely an individual. . . . Man’s circle of society . . . is a sort of loosely compacted person, in some respects of higher rank than the person of an individual organism. (ibid., p. 338)

⁶⁵ We see here that belief and doubt still have a place in pragmatism; they no longer provide its foundations, however.

If a person develops a sure belief through critical examination, or if a person has an unexamined belief that experience never brings into doubt, those beliefs are sufficiently sound for that person—they are not wrong beliefs. However, beliefs must be examined by others, in other situations and times—to have exhausted examination—to be considered absolute truth. The confidence available to the individual during his lifetime is that a belief has withstood examination; this confidence is boosted if the belief has been subjected to the scientific method, as the scientific method checks a theory against reality, thus promising to home in on that eventual truth. Approaching this truth—the “*destined generals*”—is the pragmatist’s “*summum bonum*” (ibid.). In other words, the highest good for the pragmatist concerns understanding, not action or practical benefit (ibid.).

Pragmatism—through the pragmatic maxim and its lessons about the scientific method and experimentation—promises to home in on that ultimate opinion that all who investigate will agree upon (ibid., p. 342). This is because, as a “rational experimental logic” to guide thought, it aims to shed that which is subjective or accidental in opinion (ibid.). An opinion that has shed its accidental elements is essentially what the word “real” was created to mean.

Peirce explains the terms “*realis*” and “*realitas*” were “terms of philosophy” that were “invented” in the thirteenth century (ibid.). According to its original meaning, “reality” or the “real” was simply that which existed independently of what anyone thought.

The meaning they were intended to express is perfectly clear. That is *real* which has such and such characters, whether anybody thinks it to have those characters or not. (ibid.)

Having shed its accidental elements, the “ultimate,” “destined” opinion that investigators reach is thus what is “real” (ibid., p. 342–343). We see here, then, that what is real is independent of how any man or group of men think, though not of thought in general: “the real is that which is such as it is regardless of how it is, at any time, thought to be” (1905b/1998, p. 356). In other words, there is something real about the phenomena as we experience them. The limit of the understanding that results from our experience constitutes this reality, and this is what we mean by the “*reasonable*” (ibid., p. 343).

In sum we see that beliefs that are not doubted are, in effect, considered to be true by the believer. At the same time, there is a distinction between what one holds to be true and the absolute truth. That which is absolutely true is the destined opinion that is assented to at the end of inquiry; it is this that the terms “reality” and “reasonable” point to. In the last stages of the process toward this truth, thought must be controlled (1905c/1998, p. 344); this is where logic, the science of controlled-thought, helps in reaching what will be the absolute truth.

d. Critical Common-Sensism

We have seen that one ought not to pretend to doubt what one does not genuinely doubt, and also that the pragmatic maxim helps clarify confused thought by identifying an idea’s intellectual core. How do these two components of pragmatism—acceptance of much of common-sense, along with a critical logical maxim that acts as a razor, shaving off confused thought—fit together? Do common-sense propositions that experience does not throw into doubt have the same degree of validity as those that have been logically clarified and scientifically verified? A philosophy of common-sense could easily interfere

with inquiry—block or discourage questioning—by encouraging potential investigators to remain satisfied with whatever beliefs they do not care to critically examine. Such a position verges on James’s more relativistic variant of pragmatism, discussed in the Introduction, which is concerned only with acquiring beliefs that “work”—such as the proposition that “Moses wrote the Pentateuch” (James 1909/1971, p. 274).

As we saw in the opening to this chapter, Peirce understands pragmatism as facilitating inquiry, not putting an end to it. We also saw that he balks at the suggestion that one can understand as true whatever belief one is satisfied with. Indeed, in an 1898 lecture that we will explore in the next two chapters, he explains that “an important corollary” of the first “rule of reason” is that “the way of inquiry” shall not be blocked (1898, lecture 4, p. 178). Does Peirce’s common-sense philosophy facilitate inquiry, or ultimately contradict this principle and stand in its way?

Peirce recognizes the concern that rather than promoting inquiry pragmatism, as a common-sense philosophy, might in effect put an end to questioning and make students over-confident with their initial or common-sense understanding, and attempts to clarify his position in later writings. He explains his is a common-sense teaching of a critical nature: It is a doctrine of “Critical Common-Sensism” (1905b/1998, p. 346). This doctrine is an important consequence of pragmatism (*ibid.*), without which “pragmatism amounts to very little” (1907/1998, p. 433). Pragmatism “implies faith in common-sense and in instinct, though only as they issue from the cupel-furnace of measured criticism” (1908a/1998, p. 446).

Critical Common-Sensism holds that investigation must begin with a real doubt, for one can only “make but a futile pretense to criticize” a proposition that one does not

genuinely doubt (1907/1998, p. 433). Peirce's common-sense philosophy warns against "taking a paper-doubt for the genuine metal," as we are apt to do in the "artificial life" of the university, "especially in that of a student" (1905b/1998, p. 349). Investigation must start where one actually is—with the assumptions one has about the world as one goes about one's life (1905c/1998, p. 336).

Conduct bespeaks our habits and thus our implicit knowledge regarding an idea (1907/1998, p. 418); it is thus the test to determine belief and doubt (*ibid.*, p. 433). Understood as such, certain beliefs are beyond the reach of doubt (*ibid.*). In this sense they are "original" as "one cannot 'go behind' them" (1905b/1998, p. 347). Peirce explains that these indubitable core beliefs are necessarily of a vague nature (*ibid.*, p. 350): "For example, everybody's actions show that it is impossible to doubt that there is an element of order in the world; but the moment we attempt to define that orderliness we find room for doubt" (1905d, CP 8.208).

The indubitable beliefs moreover generally "relate to the ordinary conduct of life" (1907/1998, p. 433). They can be understood as instinctive because they "resemble the instincts of the lower animals" (*ibid.*). Such beliefs are most soundly applied in situations that resemble man's primitive origins—the context, in other words, in which the instincts developed (1905b/1998, p. 349). Genuine instincts can not be overcome in practice, regardless of reason's assessment—a matter which experience and experiment will verify (*ibid.*).

There are other beliefs, however, which many take for granted but which are not in fact "indubitable" (1907/1998, p. 433). Thus, while there are propositions beyond the

reach of doubt, no particular proposition should be considered indubitable without critical examination first.

If we are to admit that some propositions are beyond our powers of doubt, we must not admit any specified proposition to be of this nature without severe criticism; nor must any man assume with no better reason than because he cannot doubt it, that another man cannot do so. (ibid.)

It is not that every belief can or ought to be investigated; only those beliefs that experience brings into doubt can be adequately examined. Common-sense thus remains the correct starting point in investigation: it is “good methodetic to presume” one’s common-sense understanding is correct “until some evidence to the contrary is forthcoming” (1905b/1998, p. 349). What Critical Common-Sensism maintains is that those beliefs that have withstood examination are firmer than those that have not, though even such “indubitable” beliefs “maybe be proved false” later on (ibid., p. 353).

Thus, while the “Critical Common-Sensist” does not spend time contemplating idle matters about which there is no “real and living doubt” (1877/1992, p. 115)—matters on which nothing is at stake—he welcomes genuine doubt (ibid.). So much so that the Critical Common-Sensist “is not content to ask himself whether he does doubt,” but rather actively attempts to raise new doubts: he “invents a plan for attaining to doubt, elaborates it in detail, and then puts it into practice” (ibid.). Peirce explains that Critical Common-Sensism is distinguished from the Scottish common-sense philosophy in this welcoming of doubt, as well as in its recognition that common-sense can be flawed, especially the further one is from the context in which an instinct developed (ibid.).

Peirce further reminds his readers that Critical Common Sensism is a doctrine of philosophy—a guide for scientific inquiry. It is not a guide for everyday life. “I do not recommend carrying the analysis so far, in other than exceptional cases” (1907/1998, p. 432). The “ordinary commonsense concepts” of such notions as “force” and “acceleration” are “far more trustworthy” guides for the purposes of everyday life than are the “exacter concepts of science” (ibid., p. 433).

e. Scholastic Realism

Peirce understands pragmatism to support and be supported by scholastic realism. Pragmatism’s “strenuous insistence upon the truth of scholastic realism,” he explains, is an important way in which pragmatism is distinguished from positivism (1905c/1998, p. 339). Scholastic realism holds that there are real things that are independent of the human mind, which constrain our understanding. In Peirce’s theory of the triadic relationship between an object, its sign, and its interpretant, the object is the real thing that constrains the interpretant. Yes, the interpretant is the mind’s ultimate understanding of the sign—is an interpretation of the object’s sign by the mind—but it is not something that the mind creates or has control over.

Peirce’s realism understands there to be a real element of intelligence in the external world. Peirce explains that the nominalist holds that all that exists is “brute fact,” and order or law is imposed by the human mind (1907/1998, p. 425). The realist, in contrast, understands that law—the order that is observed—is a “real intellectual ingredient of the universe” (ibid.).

Further entailed in Peirce's realism is an account of the existence of generals and potentiality as a mode of being. When we observe a chair, we do not observe its many components and then arbitrarily assign it a name (1868b/1992, p. 49–50). Rather, we observe it as a whole thing, as a member of the general class of chair (ibid.). Habits are, as explained above in the discussion of pragmatism's semiotic grounding, generalizations. They bespeak our generalized understanding of a concept. While "individuals alone exist," the meaning of a word or sign—the meaning yielded by the pragmatic maxim—is of a general nature (1905c/1998, p. 341–342).

Habits—the intellectual interpretant—moreover concern both the actual and potential behavior of the sign:

Intellectual concepts . . . essentially carry some implication concerning the general behavior either of some conscious being or of some inanimate object, and so convey more, not merely than any feeling, but more, too, than any existential fact, namely, the "*would-acts*" of habitual behavior. (1907/1998, p. 401–402)

The ultimate meaning of a sign reflects not only how an object does act, but how it would act in any circumstance.

The *total* meaning of the predication of an intellectual concept consists in affirming that, under all conceivable circumstances of a given kind, the subject of the predication would (or would not) behave in a certain way,—that is, that it either would, or would not, be true that under given experiential circumstances (or under a given proportion of them, taken *as they would occur* in experience) certain facts would exist. (ibid., p. 402)

The recognition of the reality of potentiality, Peirce explains, is the "kernel of pragmatism" (ibid.).

V. Pragmatism and Metaphysics: A Neglected Argument for the Existence of God

We saw above that pragmatism is not a metaphysical doctrine. Peirce at times, though, makes claims that point to the opposite understanding, creating confusion. In a 1905 essay, he claims that pragmatism transforms metaphysical problems, leaving only that which can be tested and settled by empirical investigation. However in another essay that same year, Peirce writes that pragmatism merely reveals a concept's logical meaning, not its psychological or metaphysical content. In 1907, as we saw above, Peirce clarifies that pragmatism is not a metaphysical doctrine. He expresses moreover that there is indeed a place for non-scientific speculation in our thought. This paves the way for his 1908 speculative essay, "The Neglected Argument for the Reality of God," in which he offers a hypothesis to account for the key assumption of science that reality is knowable. Let us explore Peirce's position.

In an essay published in April 1905, "What Pragmatism Is," Peirce explains that pragmatism is a "species of prope-positivism" that can help clarify confusion in metaphysical thought (1905c/1998, p. 339). Its "*raison d'être*" is to

show that almost every proposition of ontological metaphysics is either meaningless gibberish,—one word being defined by other words, and they by still others, without any real conception ever being reached,—or else is downright absurd. (1905c/1998, p. 338)

What will remain in philosophy will be simply "a series of problems capable of investigation by the observational methods of the true sciences" (ibid.). Unlike the other doctrines of positivism, pragmatism does not "merely [jeer] at metaphysics" but rather

“extracts from it a precious essence, which will serve to give life and light to cosmology and physics” (ibid.).

It appears however that Peirce backs away from the claim that pragmatism ultimately resolves all metaphysical problems, and does so rather quickly. In an essay published in October 1905, Peirce explains that the pragmaticist meaning of “Time” will not “attack those most difficult problems connected with the psychology, the epistemology, or the metaphysics of Time” (1905b/1998, p. 357). Rather, pragmatism will only shed light on the “humbler question of what we mean by Time. . . . What is the intellectual purport of the Past, Present, and Future?” (ibid.).⁶⁶ Writing in 1907, Peirce once again explains that “When we pass to consider the nature of Time, it seems that pragmatism is of aid, but does not of itself yield a solution” (1907/1998, p. 420).

Peirce maintains that there are many questions “commonly reckoned as metaphysical” that pragmatism does clarify (ibid.). Such questions include:

What is reality? Are necessity and contingency real modes of being? Are the laws of nature real? Can they be assumed to be immutable or are they presumably results of evolution? Is there any real chance, or departure from real law? (ibid.)

Once “pragmatism is . . . sincerely accepted,” these questions “cannot logically resist settlement” (ibid.).

⁶⁶ The pragmatic definition of “Time” concerns the effect the concept has upon our conduct. The Past “bear[s] upon our conduct” in that

whenever we set out to do anything, we “go upon,” we base our conduct on facts already known, and for these we can only draw upon our memory. . . . In short, the Past is the sole storehouse of all our knowledge. (1905b/1998, p. 358)

The Future, for its part, concerns “controllable conduct” (ibid., p. 359). The Present involves “the consciousness . . . of a struggle over what shall be” (ibid.).

For those matters that can not be so reduced, however—such as with the concept “Time”—there is an important place for non-scientific meditation.

For those metaphysical questions that have such interest,—the question of a future life and especially that of One Incomprehensible but Personal God, not immanent in but creating the universe,—I, for one, heartily admit that a Humanism that does not pretend to be a science but only an instinct, like a bird’s power of flight, but purified by meditation, is the most precious contribution that has been made to philosophy for ages. (ibid., p. 420–421)

He explains similarly in 1908 that “problems of metaphysics will inevitably present themselves that logical analysis will not suffice to solve” (1908a/1998, p. 438). Thus, despite Peirce’s April 1905 claim that pragmatism reduces all metaphysical questions to logical questions that can be resolved through empirical investigation, it seems he quickly backs away from that position and more consistently maintains that pragmatism is simply a logical doctrine and that there are valid questions that neither logic nor empirical science can resolve.

a. Reality of God

An example of such meditation is Peirce’s musings that bring him to the hypothesis of “the Reality of God” (1908a/1998, p. 446). He explains that contemplating the remarkable connection between pure ideas, brute fact, and signs—the “homogeneities of connectedness” of each universe of experience—will bring one to the “hypothesis of God’s Reality” (ibid., p. 438–439). “It is simply the natural precipitate of meditation upon the origin of the Three Universes” (ibid., p. 446).

Another way of speaking about the connectedness of Peirce's three universes is to note the remarkable link between the human mind and the world of experience. Science begins by positing hypotheses about the world. These hypotheses are the product not of deduction or induction but of instinct—the “spontaneous conjectures of instinctive reason” (ibid., p. 443). Modern science is founded upon Galileo's “*il lume natural*” (ibid. p. 444). Reasoning about phenomena is, moreover, as natural to man as is flying to a bird. “Embody[ing] general ideas in art-creations, in utilities, and above all in theoretical cognition” is his “proper function” (ibid., p. 443). This is man's “divinatory power” (ibid., p. 445).

It is “historical truth,” moreover, that with this instinct as guide, humans have been successful at uncovering order in the world: that “the well-prepared mind has wonderfully soon guessed each secret of nature” (ibid.). The “bedrock of logical truth” is that “man's mind must have been attuned to the truth of things in order to discover what he has discovered” (ibid.). “Unless man have a natural bent in accordance with nature's, he has no chance of understanding nature, at all” (ibid.).

What accounts for the human mind being “attuned to the truth of things”?⁶⁷ Peirce explains that the hypothesis of God's reality undergirds scientific activity. In a 1908 letter

⁶⁷ Hookway (1985) explains that Peirce's metaphysics aims to account for the regulative hopes that set the foundation of his theory of science and knowledge, to “assure us of a hoped-for attunement between our cognitive nature and reality” (p. 287). Peirce

holds that it will not suffice for the regulative loans to be repaid through a scientific investigation. There must be a metaphysics, prior to all of the special sciences . . . which will ground all the regulative hopes. (p. 282)

In addition to his speculations about the nature of God, Peirce's metaphysics also includes a theory of “tychism,” an evolutionary theory of reality that

to his friend Victoria Lady Welby, Peirce explains that the scientist's faith in reason is in effect a faith in God.

Every true man of science, i.e., every man belonging to a social group all the members of which sacrifice all the ordinary motives of life to their desire to make their beliefs concerning one subject conform to verified judgments of perception together with sound reasoning . . . really believes the universe to be governed by reason. (1908b/1958, p. 400)

The belief that the universe is governed by reason amounts to an implicit "Faith in God" (ibid.).

The God that undergirds science is a natural, or philosophical, God. The God that Peirce describes as resulting from musing over the remarkable connection between pure ideas, the external world, and the human mind, has the character of necessity: "*Ens necessarium*" (1908a/1998, p. 434). It is not an embodied God, and thus also "probably has no consciousness" (ibid., p. 447).⁶⁸ And It is the "creator of all three Universes of Experience" (ibid., p. 434): of pure ideas like mathematics; of brute experience; and of that which can perceive order and law—"everything whose Being consists in active power to establish connections between different objects" (ibid., p. 435).

holds that the reality that is the object of our investigations is approximately governed by law; it also exemplifies "chance sportings" which deviate from these laws. . . . Through time, this chance sporting decreases and law increases its hold upon the course of events. The world comes increasingly to exhibit a rational or intelligible order. (p. 271)

⁶⁸ Smith (1978) must not have come across this passage because he maintains that "Peirce's idea of God is . . . frankly anthropomorphic" (p. 178). Smith bases this conclusion on an arguable misreading of a passage in which the "Pragmaticist" in a dialogue simply explains that "man is so completely hemmed in by the bounds of his possible practical experience . . . that he cannot, in the least, *mean* anything that transcends those limits" (CP 5.536). This is not in contradiction with my argument that Peirce's God is a philosophical akin to nature. In contrast, Hookway (1985) recognizes that there is a "Pantheistic tendency in Peirce's thought," which is in line with my reading (p. 280).

As “Creator,” God is responsible for the possibility of knowledge. This “Creator” God is moreover “independent” of two of the three universes of experience (ibid., p. 448)—the two being, presumably, those of pure ideas and signs. Peirce suggests that this God is also omniscient and omnipotent, but in ways that do not interfere with “His essential character of *Ens necessarium*” (ibid., p. 447). Responsible for knowledge and experience, without a body, and with a being characterized by necessity, this God is a philosophical, not providential, God. Peirce’s claim that faith in God’s reality undergirds science is another way of saying that the activity of science and philosophy entails an assumption of nature. Peirce indeed speaks of “Nature” in religious terms in an 1898 lecture: “Nature is something great, and beautiful, and sacred, and eternal, and real,—the object of [science’s] worship and its aspiration” (1898/1992, lecture 4 p. 177).

The hypothesis of God’s existence is an “explanatory hypothesis” (1908a/1998, p. 447). It is unlike ordinary scientific hypotheses. It is both more plausible than ordinary scientific hypotheses, but can also only be “apprehended so very obscurely” (ibid.). Finally, it has a “commanding influence over the whole conduct of life of its believers” (ibid.). The hypothesis fits well with human instincts (ibid., p. 445). It is ultimately borne out by the success of humankind’s efforts at pursuing knowledge: Its “ultimate test must lie in its value in the self-controlled growth of man’s conduct of life” (ibid., p. 446).

The neglected argument for God’s existence is intended to be “full of nutrition for man’s highest growth” (ibid., p. 435). “Every heart will be ravished by the beauty and adorability of the Idea” of the reality of God (ibid., p. 446).

The more he ponders it, the more it will find response in every part of his mind, for its beauty, for its supplying an ideal of life, and for its thoroughly satisfactory explanation of his whole threefold environment. (ibid., p. 439)

By accounting for the possibility of knowledge, the idea of the reality of God supplies “an ideal of life” (ibid., p. 439).

Motivating the pursuit of knowledge is philosophy’s role.

In every age, it can only be the philosophy of that age . . . which can animate the special sciences to any work that shall really carry forward the human mind to some new and valuable truth. (1898/1992, lecture 4 p. 171)

We have seen such an effort previously. In the previous chapter of this dissertation I argued that Peirce’s ultimate aim was to provide a philosophical foundation that would motivate scientists to pursue knowledge—as the belief in god had motivated scholars in the Middle Ages. The belief in god’s existence impelled the accomplishment of great feats.

If any one wishes to know what a scholastic commentary is like, and what the tone of thought in it is, he has only to contemplate a Gothic cathedral. The first quality of either is a religious devotion, truly heroic. One feels that the men who did these works did really believe in religion as we believe in nothing. (1871/1992, p. 86)

Peirce’s assertion—that truth will converge in “one catholic consent” (ibid., p. 89–90)—can be understood as an attempt to provide a sufficiently motivating goal to us men today who “believe in nothing” (ibid.). I argued that Peirce’s main concern was that his was an age of skepticism, in which knowledge would not be sufficiently pursued, and that his philosophical project was to motivate its pursuit. The hypothesis for God’s existence—that there is a nature to which the human mind has access—is part of this same effort to

motivate inquirers to pursue knowledge. We will see in the next chapter that the pursuit of knowledge is the highest human occupation.

VI. Conclusion

Pragmatism is a logical doctrine. It aims to help us clarify the meaning of difficult concepts. It does so by acting as a logical manifestation of the scientific method, identifying the habit of action behind our understanding of a concept. Its concern with habits of action aims at understanding, not at action simply.

Pragmatism is a variant of common-sense philosophy, as it maintains that only legitimate doubt can lead to fruitful inquiry. While one can not pretend to doubt what one does not doubt in one's heart, the truth seeker ought not be simply satisfied with one's common-sense understanding, but should rather create exercises to throw into doubt that common-sense understanding. Pragmatism is not about complacency. It is a critical common-sense doctrine.

The habit that the pragmatic maxim identifies is of a general nature; pragmatism thus complements and is complemented by a view of scholastic realism—recognizing the existence of generals and potentiality as a mode of being. Peirce's pragmatism, moreover, recognizes that it exhausts neither the psychological nor metaphysical meaning of a concept, and that there is room for metaphysical speculation to supplement a logical examination. Peirce's own metaphysical speculation yields a hypothesis that can account for the possibility of knowledge, a key assumption of science. It is philosophy's role to motivate the sciences; providing the intellectual groundwork to motivate inquirers in the pursuit of knowledge has been a primary goal of Peirce's throughout his work.

CHAPTER 4

In this chapter I explore Peirce's understanding of the relationship between the theoretical and the practical. We learn that they ought to be separated. A concern for utility interferes with the pursuit of truth. Pure philosophy requires Erotic devotion. Peirce tries to instill this desire for knowledge in his audience.

Peirce also explains that the practical realm ought to be governed by instinct, by traditional morality. Philosophy can and should influence instincts slowly; should influence morality only with caution. "Instincts" are comprised of biological instinct, culturally inculcated norms, and the practical wisdom one has gained in one's life. We learn a bit about what Peirce's critical common-sensism consists of: Biological instincts can not be overcome. Once a belief is understood as culturally inculcated, it can be overcome. It is then the role of reason to assess its soundness and whether it ought to be overcome.

Philosophy does not produce simple formulas for acting. It does, however, influence the instincts according to what is universal, as it concerns "ideal and eternal verities." Though these truths do not yield clear guides for action, Peirce does provide hints about the direction in which philosophy transforms the instincts. Peirce expects contemplation of the whole will imprint on man's inner being the interconnectedness of human beings.

I. Theory and Practice

In speaking about the connection between pragmatism and practical matters, Peirce says confusing and at times seemingly contradictory things. This leads students of his and those who associate with pragmatism to either write him off,⁶⁹ ignore Peirce's actual views,⁷⁰ or spend much effort trying to make sense of Peirce's views in order to justify applying his thought to political or ethical theory.⁷¹ This chapter is, in a way, of the latter sort; though in its effort to make sense of Peirce's views on practical matters, it seeks to take more seriously Peirce's conservatism than is ordinarily done.⁷²

In Peirce's early writings, he explicitly connects philosophy, and logic specifically, with matters of psychology, political theory, theology, and morality. In "Grounds of Validity of the Laws of Logic," he explains that logic teaches that putting one's own interests above those of the community's is illogical (1869/1992, p. 81). This is because each individual man is so highly dependent on the community of men for any knowledge at all; when coupled with the observation that men frequently subordinate their self-interest to that of the community, this moreover belies the doctrine that men simply pursue their own self-interest (ibid.). In his review of *The Works of George Berkeley*,

⁶⁹ This is one reason Richard Rorty dismisses Peirce as a traditional philosopher (Hookway 1985, p. 3). Hilary Putnam similarly dismisses Peirce's views about practical matters, explaining that Peirce was simply a conservative (Putnam 2013).

⁷⁰ E.g., Talisse (2012) says that if Peirce doesn't make the argument he finds in "The Fixation of Belief," then that is his problem (p. 118).

⁷¹ E.g., Misak (2004a) and Ayim (1981).

⁷² Short (2001) similarly tries to do this, though his article is merely an invitation to do so, and leaves much work on the matter to be done. Jacobsohn (1979) looks favorably upon Peirce's separation of theory and practice and the resulting conservatism, arguing that Peirce offers a "healthy antidote to the legal scientism practice by Justice Holmes, which culminated in the case of *Buck v. Bell* in 1926" (Skagestad 1981, p. 227).

Peirce explains that the logical dispute between realism and nominalism touches questions directly related to our lives:

The question whether the *genus homo* has any existence except as individuals, is the question whether there is anything of any more dignity, worth, and importance than individual happiness, individual aspirations, and individual life. Whether men really have anything in common, so that the *community* is to be considered as an end in itself, and if so, what the relative value of the two factors is, is the most fundamental practical question in regard to every public institution the constitution of which we have it in our power to influence. (1871/1992, p. 105)

In “The Fixation of Belief,” Peirce encourages men to “overcome” the “old beliefs” that they come to understand to “have no sound basis”—which they can do by reflecting upon the inadequacy of the method by which these beliefs were originally acquired (1877/1992, p. 122). This applies to a “reformed Mussulman” and his “old notions in regard to the relations of the sexes,” as well as to “a reformed Catholic” who still “shrink[s] from reading the Bible” (ibid., p. 122–123). In “How to Make Our Ideas Clear,” Peirce explains that, according to his pragmatic maxim, there is no real disagreement between Protestants and Catholics with regard to the doctrine of transubstantiation because, despite what they say, Catholics can not mean that matter with the properties of wine and wafers are really blood and flesh: “We can . . . mean nothing by wine but what has certain effects, direct or indirect, upon our senses” (1878/1992, p. 131). To say that something with the sensible qualities of wine is in reality blood is simply “senseless jargon” (ibid.).

In an 1898 talk to William James’s students, however, Peirce appears to say quite the opposite with regard to the relationship between philosophy and practical matters. In

the first in a series of lectures in Cambridge, Massachusetts—a series that came to be known as the “Cambridge Conferences” lectures—Peirce condemns “with the whole strength of conviction the Hellenic tendency to mingle Philosophy and Practice” (1898, lecture 1, p. 107). He explains that “the two masters, *theory* and *practice*, you cannot serve” (ibid., p. 113; emphasis in original). This warning is for the sake of each: the focus on practice interferes with theoretical inquiry, and the practical application of scientific propositions—which are necessarily tentative—is imprudent. Whereas theory ought to be governed by reason, practical matters ought to be governed by instinct, sentiment, and art.

Below we will analyze the arguments Peirce lays out in the first Cambridge Conferences lecture by both examining the lecture as it was delivered, as well as an earlier draft of the lecture.⁷³ This examination will reveal what seems to be the overarching purpose of Peirce’s philosophical practice, of which we have seen hints in the previous three chapters: namely, to formulate a theory of knowledge and reality that can save and continue to motivate theoretical inquiry. It will also explore Peirce’s practical conservatism and understanding of the appropriate role of reason and theory in the practical realm. We will see that Peirce’s concerns about the intermingling of theory and practice are important and ought to be taken seriously. By supplementing our examination of this 1898 lecture with other of Peirce’s writings, we will also see that in Peirce’s thought there is in fact a role for reason in the practical realm, as there is a role

⁷³ The lecture as delivered is published in *Reasoning and the Logic of Things*, edited by Kenneth Laine Ketner (Cambridge, MA: Harvard University Press, 1992), and is denoted in in-text citations as (1898, lecture 1, p. xx). The earlier draft of the lecture can be found in the *Collected Papers of Charles S. Peirce* vol. 1, edited by Charles Hartshorne and Paul Weiss (Bristol, England: Thoemmes Press, 1998), and is denoted in in-text citations as (1898, CP §xx).

for instinct in theoretical inquiry. It will ultimately be argued that there is a way to understand Peirce's early statements about the connection between philosophy and more practical matters as largely, if not entirely, consistent with his later warnings about their intermingling. This discussion will shed light on important differences between philosophy and practical concerns, as well as reveal yet more reasons why Richard Rorty considered Peirce to be a "traditional philosopher" (Hookway 1985, p. 3)—but in a way that appreciates Peirce's prudence.

II. The Proper Role of Reason

Peirce explains that reason is aptly fit for discovering general laws and "uncovering one great Cosmos of Forms, a world of potential being" (1898, lecture 1, p. 121). The conclusions reason reaches through its processes of deduction, induction, and retrodution are only provisional in nature, and are thus not intended for application in practical matters:

Pure science has nothing at all to do with *action*. The propositions it accepts, it merely writes in the list of premises 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. (ibid., p. 112)

We see Peirce's fallibilism expressed here: propositions in science are accepted only provisionally, and will be abandoned if experience throws them into doubt. Peirce thus refers to reason as the "department of the soul which is most superficial and fallible" (ibid., p. 121).

Illustrating how “superficial the faculty [of reason] is” is the fact that man “ridiculously overrates his own reasoning” (ibid., p. 110). Moreover, men generally attribute reason after the fact to justify what their instincts direct them to do:

Men many times fancy that they act from reason when, in point of fact, the reasons they attribute to themselves are nothing but excuses which unconscious instinct invents to satisfy the teasing ‘whys’ of the *ego*. (ibid., p. 111)

This “self delusion” is enough “to render philosophical rationalism a farce” (ibid.).

Rather than being a tool for governing practical matters, the proper role for reason—of philosophy and science—is to make “the acquaintance of pure ideas” (ibid., p. 119). In this position, Peirce explains that he allies himself with Plato (ibid.) and Aristotle (ibid., p. 107).

Theoretical science was for [Aristotle] one thing, animated by one spirit and having knowledge of theory as its ultimate end and aim. Aesthetic studies were of a radically different kind; while Morals, and all that relates to the conduct of life, formed a *third* department of intellectual activity, radically foreign in its nature and idea, from both the other two. (ibid., p. 107)

Peirce “confesses[es]” that he is “an Aristotelian and a scientific man” when he separates theoretical science from moral and aesthetic matters (ibid.).

The true man of science approaches inquiry with a concern for truth, and not with an eye toward usefulness; “the true scientific investigator completely loses sight of the utility of what he is about” (ibid.). It would be a crime if a scientist were to dissect a dog for any reason other than pure knowledge (ibid.). And while the chemist or physiologist who was concerned with utility might greatly benefit mankind—“though he will not do much for science” (ibid.)—the consequences of a preoccupation with utility for

philosophy are more dire. A man who purports to be a philosopher but who does not approach his material with the right intentions and “stand aloof from all intent to make practical applications,” will both “obstruct the advance of the pure science” as well as “endanger his own moral integrity and that of his readers” (ibid.). Progress in philosophy requires that those pursuing it be “animated by the true scientific Eros” (ibid.). This is all the more serious because the subject matter of philosophy touches “upon matters which are, and ought to be, sacred to us” (ibid).⁷⁴

If philosophy or science are pursued for some other end—such as improving men’s lives—this other intention corrupts the scientist and interferes with the pursuit of truth. It is

indispensable . . . for the successful march of discovery in philosophy and in science generally, that practical utilities, whether low or high, should be **put out of sight** by the investigator. (ibid., p. 113; emphasis in the original)

One reason why this ulterior motive interferes with pure science is because the concern for utility is always very narrow (ibid.). To illustrate, Peirce points to the field of chemistry:

How much *less* we should know, if the rare elements and the compounds which only exist at low temperatures had received only the *share* of attention to which their *utility* entitled them. (ibid.; emphasis in the original)

Moreover, to do something well, a man must put his “whole heart and soul” in it (ibid.); science done successfully requires a man’s full attention:

⁷⁴ Skagestad (1981) points out the similarity to Locke’s point in the *Essay concerning Human Understanding*: “He that would seriously set upon the search of truth ought, in the first place, to prepare his mind with a love of it. For he that loves it not, will not take much pains to get it; nor be much concerned when he misses it” (Locke 1690, Book 4, Chapter 19; quoted in Skagestad 1981, p. 201).

That perfect balance of attention which is requisite for observing the system of things is utterly lost if human desires intervene, and all the more so the higher and holier those desires be. (ibid., p. 113–114)

What's more, our prejudices will cloud our judgment if "we allow ourselves to dwell upon them at all" (ibid., p. 114). A concern for practical consequences will prevent a scientist from honestly pursuing methods of inquiry that aim at uncovering truth if he thinks the path he is on will lead to an ugly truth that will adversely affect behavior:

It is far better to let philosophy follow perfectly untrammelled a scientific method, *predetermined* in advance of knowing to what it will lead. If that course be honestly and scrupulously carried out, the results reached, even if they be not altogether true, even if they be grossly mistaken, cannot but be highly serviceable for the ultimate discovery of truth. Meanwhile, sentiment can say "Oh well, philosophical science has not by any means said its last word yet; and meantime I will continue to believe *so and so*." (ibid., p. 114)

A man can thus not aim at both uncovering truth and producing what is useful.

III. The Imprudence of Applying Philosophy to Practical Matters

We thus see that a concern for practical utility threatens science and philosophy. By the same token, philosophy is a threat to practical concerns. In this lecture, Peirce emphasizes that philosophy is a bad guide for practical action. He points to the poor state of the study of philosophy at his time, in addition to the provisional nature of the conclusions of reason. He cautions it would be "*unwise*" (ibid., p. 111) and "exceedingly dangerous" (ibid., p. 108) for man to base his conduct in life on the conclusions of his reason. The infantile state of philosophy at the time—as indicated by the lack of consensus among its students—accounts for the danger of such an action: "It is all far too dubious to warrant risking any human life upon it" (ibid.). Philosophy even in a more

advanced state—as with all of science—would still only have conclusions that were provisional in nature (ibid., p. 112). Given the provisional nature of reason’s conclusions, it would thus be foolish to base one’s conduct on its determinations.

A much sounder guide to action, especially action of vital importance, is instinct: “A *Logica Utens*, like the analytical mechanics resident in the billiard player’s nerves, best fulfills familiar uses” (ibid., p. 109). Sentiment and instinct⁷⁵ embody wisdom gleaned through all of man’s experiences: “instinctive or Sentimental induction [summarize] the experience of all our race” (ibid., p. 111). Our instincts result from evolution, and are thus present in “all human beings” (ibid., p. 110): they are “inheritances that have come to us from the biped who did not yet speak” (ibid.). The “mental qualities we most admire in all human beings”⁷⁶ result from these instincts: “the maiden’s delicacy, the mother’s devotion, manly courage” (ibid., p. 110). Man’s aversion to incest similarly results from his instinct and sentiment (ibid., p. 111). These instincts are the “common sense” that “the healthy, natural, normal democracy thinks” (1898, CP 1.654).

Peirce moreover recognizes that some men are going to have better instincts than will others. The statesman’s instincts are honed through “long experiential training,” for example (more on this below) (1898, lecture 1, p. 109). It is due to the fitness of man’s

⁷⁵ Peirce uses “sentiment” and “instinct” interchangeably in this lecture; for example: “matters of vital importance must be left to sentiment, that is, to instinct” (1898, lecture 1 p. 112). However, as we will see below, elsewhere he provides a more nuanced understanding of each, with instinct indicating what we inherit in our biology via evolution, and sentiment that which culture inculcates in us.

⁷⁶ To which, Peirce adds (as we have seen), “except our several selves,” thus quietly indicating that Peirce holds intellectual pursuit and virtue above moral virtue (1898, lecture 1, p. 110).

instincts in practical matters that “the wise man follows his heart and does not trust his head” in “the greatest affairs of life” (1898, CP 1.653). Indeed, this method should be followed by “every man, no matter how powerful his intellect” (ibid.).

Recognizing that reason should yield to sentiment in the realm of action implies an attitude of “Conservatism”—the essence of which is a refusal “to push any practical principle to its extreme limits” (1898, lecture 1 p. 111). It would be “*unwise*,” for example, for an individual to “hastily” allow his reason to trump his sentiment in matters of action (ibid.).

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 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. (ibid.)

The provisional nature of the conclusions of reason and science makes it inherently an unsound guide: “Sentiment can say ‘Oh well, philosophical science has not by any means said its last word yet; and meantime I will continue to believe *so* and *so*’” (ibid., p. 114). Thus, while Peirce’s conservatism does not pretend that instincts are absolutely infallible, it holds that they ought to be considered infallible for the individual (ibid., p. 111).

In the draft of his talk, Peirce speaks more candidly about his conservatism and what it means to be moral. He explains, for example, that he finds it “foolish and despicable” to “allow mere reasoning and reason’s self-conceit” to overturn “the normal

and manly sentimentalism which ought to lie at the cornerstone of all our conduct,” despite how “commendable . . . it undoubtedly is to reason out matters of detail” (1898, CP 1.662). He explains moreover that the philosophy of religion and ethics are both useless: “genuine religion” comes from the “heart” not from the “head” (ibid., CP 1.665); and there is no “*use*” to “prying into the philosophical basis of morality,” as morality is simply “behaving as you were brought up to behave” (ibid., CP 1.666). This of course entails conservatism—respect for what one inherits—and means “not trusting to one’s reasoning powers” (ibid.). “To be a moral man is to obey the traditional maxims of your community without hesitation or discussion” (ibid.). The problem with the study of ethics is that it tries to reason out a basis for morality; it is thus “composed of the very substance of immorality” (ibid.). Thieves “reason about the basis of morals” (ibid.).

Peirce moreover acknowledges that his conservatism demands that even conservatism not be taken to the extreme, and that sometimes the upending of sentiment by reason might be necessary. “We do not say that sentiment is *never* to be influenced by reason, nor that under no circumstances would we advocate radical reforms” (ibid.). In this lecture, however, Peirce does not provide guidance as to what would merit radical reform, or what characteristics good instincts would have. He only explains at the end of his lecture that right understanding will yield right instinct, though reason does not seem to be able to direct instinct directly (ibid., p. 121–122). We will return to this topic below.

IV. Philosophy and the Threat Posed to It by a Concern with Utility

Thus we see that a concern for utility interferes with science, as philosophy can harm practical action and decision making. Peirce understood that the kind of men who

will be interested in improving people's lives are very different from those who will be able to contribute to "purely theoretical" science (1903b/1998, p. 197): "It will be in general quite *different men*, and two knots of men not apt to consort the one with the other, who will conduct the two kinds of inquiry" (ibid., p. 198).⁷⁷ The genuinely scientific man is animated by an awareness of his own ignorance, coupled with a taste of the truth and the inkling that he has the ability to further knowledge. His is not "a wish either to 'support social stability' or . . . to increase the sum of men's pleasures" (1901a/1998, p. 58). Rather, he has "received a deep impression of the majesty of truth, as that to which, sooner or later, every knee must bow" (ibid.). Moreover, he has found that "his own mind is sufficiently akin to that truth to enable him, on condition of submissive observation, to interpret it in some measure" (ibid.). The more one encounters and understands the relationship between human reason and truth, the more the scientist finds himself drawn into its pursuit:

As he gradually becomes better and better acquainted with the character of cosmical truth, and learns that human reason is its issue and can be brought step by step in accord with it, he conceives a passion for its fuller revelation. (ibid.)

Above all, he is aware of "his own ignorance," and recognizes that he can only play a small role in the discovery of truth (ibid.). His actions are thus generous to those who come after:

Small as [his steps in discovery] are, he deems them precious; and he hopes that by conscientiously pursuing the methods of science he may erect a foundation upon which his successors may climb higher. (ibid.)

⁷⁷ Ayim (1981) suggests this points to the main upshot of Peirce's advocating for the separation of theory and practice: that different investigators are fit for investigating theoretical and practical matters.

For the scientist has a part to play in “progressive creation”:

The very being of law, general truth, reason . . . consists in its expressing itself in a cosmos and in intellects which reflect it, and in doing this progressively; and that which makes progressive creation worth doing . . . is precisely the reason, the law, the general truth for the sake of which it takes place. (ibid., p. 58–59)

“Such, I believe . . . is the motive which effectually works in the man of science” (ibid., p. 59).

Peirce saw widespread negative impact resulting from the predominance of the kind of men who are concerned with utility in the field of science and philosophy. As Peirce saw it, men “devoid of genuine scientific curiosity” now “barricade the road of science with empty books and embarrassing assumptions” (1898, lecture 1, p. 114). This has resulted in an undisciplined field of study, which has produced the “mistaken notion” that all of metaphysics is “necessarily idle subjective and illogical stuff” (ibid., p. 117). This moreover accounts for the “present infantile condition of philosophy” (ibid., p. 107). Peirce points to “men like Hegel,” who were “educated in Theological Seminaries,” as responsible for such developments. These men have “not been nurtured in dissecting-rooms and other laboratories,” but have rather “been inflamed with a desire to amend the lives of themselves and others” (ibid., p. 107). It is because of such men that the sciences were progressing without the aid of philosophy, whereas philosophy ought to be leading the sciences (ibid., p. 116–117).⁷⁸

Peirce understands a mindset only focused on practical concerns to yield negative consequences. He explains that the pursuit of “‘topics of vital importance’ as the first and best” (1898, CP 1.673) can only produce one of two results:

⁷⁸ Peirce’s efforts to articulate reality and truth, examined in the previous three chapters, aim precisely at this end, I argue.

Either on the one hand what is called, I hope not justly, Americanism, the worship of business, the life in which the fertilizing stream of genial sentiment dries up or shrinks to a rill of comic tit-bits, or else on the other hand, to monasticism, sleepwalking in this world with no eye nor heart except for the other. (ibid.)

These consequences—a “worship” of low, practical matters, or a mental cloistering of oneself off from the world—are the two possible results of a primary concern with practical matters and using reason solely as the guide to utility.⁷⁹ “Take for the lantern of your footsteps the cold light of reason and regard your business, your duty, as the highest thing, and you can only rest in one of those goals or the other” (ibid.).

Implicit in Peirce’s warning is the suggestion that applying reason to pure theoretical inquiry opens another possibility: That man can use his capacity for reasoning and contemplation to be at home in this world, by not only accepting but being happy in the lot of man. In this too, then, he is in agreement with the traditional understanding of philosophy. Indeed, in several key respects, Peirce presents philosophy in its traditional form. Philosophy, Peirce explains, seeks to uncover “ideal and eternal verities” (1898, lecture 1, p. 122), a “great Cosmos of Forms” (ibid., p. 121). Philosophy is both noble—it is man’s “highest occupation” (1898, CP 1.673)—as well as good, offering much blessedness:

Let our hearts murmur “blessed are we” if the immolation of our being can weld together the smallest part of the great cosmos of ideas to which the sciences belong. (ibid., CP 1.670)

⁷⁹ This is one reason I think Peirce’s warning against a preoccupation with practical concerns is stronger than scholars like Ayim (1981) and Misak (2004a) acknowledge.

The true scientist, prompted by an awareness of his own ignorance, pursues truth because he understands man's ability to uncover the cosmos to be that which gives meaning to life and worth to humanity: "This, for him, is what makes life worth living and what makes the human race worth perpetuation" (1901a/1998, p. 58).⁸⁰

Peirce explains that through acquaintance with them, the "ideal and eternal verities" will "by slow percolation gradually reach the very core of one's being" (1898, lecture 1, p. 122). It is this way that philosophy can and ought to affect our instincts—"the soul's deeper parts"—and thereby "come to influence our lives" (ibid., p. 121–122). In other words, though philosophy ought not to be directly applied to practical decision making, in the long run, slowly and indirectly, it will influence the investigator's practical judgment.⁸¹

⁸⁰ Peirce's presentation of philosophy echoes the teachings of Plato and Aristotle. In the "Symposium," Socrates recounts that Diotima tells him that philosophy is beautiful because it is eternal—"always being and neither coming to be nor perishing, nor increasing nor passing away" (211a 1-3, 1986 p. 41)—as well as "perfect, and most blessed" (204c4-5, 1986 p. 34). She moreover explains that "It is at this place in life, in beholding the beautiful itself . . . that it is worth living, if—for a human being—it is [worth living] at any place" (211d1-3, 1986 p. 42). Aristotle similarly explains in the *Ethics* that contemplative activity is the "activity of the god" and "superior in blessedness" (Book 10, ch. 8, 1178b20-25, 2011 p. 227). The human life that resembles divine contemplative activity is that which is blessed (Book 10, ch. 8, 1178b25-27, 2011 p. 228). The "blessed person" who is able to partake of the "activity of the intellect" has "something divine present in him" (Book 10, ch. 7, 1177b24, 1177b20, 1177b27-28, 2011 p. 225).

⁸¹ In the "Symposium" Diotima similarly explains that true virtue results only from understanding the beautiful that is "always being and neither coming to be nor perishing" (211a1-2, 1986 p. 41):

Only here, in seeing in the way the beautiful is seeable, will he get to engender not phantom images of virtue—because he does not lay hold of a phantom—but true, because he lays hold of the true; and that once he has given birth to and cherished true virtue, it lies within him. (212a 3-7, 1986 p. 42)

A true understanding of the eternal entails "[laying] hold of the true" within oneself, which in turn produces true virtue within one's soul (ibid.).

V. Peirce's Political Project

Now that we have established Peirce's traditional understanding of the nobility and blessedness available in the philosophic life, it is important to note that in his delivered remarks (as compared with the drafts of his talk), Peirce tones down his message somewhat and shows an appreciation for the non-philosophic way of life as well. In the 1898 talk as it was delivered, Peirce explains that he agrees with Plato that "making the acquaintance of pure ideas" is "the ultimate end of philosophy and of science in general," but says that Plato was in error in saying that this is "the whole end and aim of human life" (1898, lecture 1 p. 119). To Peirce, Plato does not appropriately appreciate the simple human life: "I do not mean that [Plato's teaching does] justice at all to those who live simple lives without at all thinking of philosophy" (ibid.). Finally, whereas Peirce refers to philosophy as man's "highest occupation" in a draft of the lecture, he does not do so in his delivered remarks.

Why did he tone down his message in the delivered version of the lecture? For one thing, Peirce does not think most men are capable of philosophy. In the 1898 lecture Peirce distinguishes the intellectual abilities of himself and his audience from those of most men (ibid., p. 110). In the earlier draft of the talk, he explains that the ability to reason well is a rare attribute:

Powers of reasoning in any but the most rudimentary way are a somewhat uncommon gift, about as uncommon as a talent for music. Indeed, a much smaller number of persons actually attain to any proficiency in reasoning. (1898, CP 1.657)

In "The Fixation of Belief," moreover, Peirce explains that "the method of authority will always govern the mass of mankind," whether that authority be maintained by the

“organized force in the state” or “secured by a moral terrorism to which the respectability of society will give its thorough approval” (1877/1992, p. 121–122). In other words, Peirce expects that the “the mass of mankind” will never be capable of applying their own individual reasoning powers—whether by the method of science or a priori reasoning—to make sense of the world.

Peirce’s undemocratic position would likely not resonate with an American audience. In “The Fixation of Belief,” Peirce moreover acknowledges the need for thinkers to self-censor. He explains that because society has the capacity to hunt the holder of a “tabooed belief” like it would “a wolf,” “the greatest intellectual benefactors of mankind have never dared, and dare not now, to utter the whole of their thought” (1877/1992, p. 122). Thus the likely explanation for Peirce’s ultimate presentation of philosophy not being the proper aim of most men’s lives is out of a combination of his undemocratic understanding of men’s capacities combined with his sensitivity to and respect for his audience’s democratic prejudices. This explanation in turn raises the question: For what purpose does Peirce want to win over his audience? We will first explore at what Peirce’s rhetoric aims, as this touches on what I argue is Peirce’s overall philosophic project: to attract serious students to the pursuit of truth and purely theoretical study. In the next section we will also see that Peirce indeed has an appreciation for traditional morality that is connected to his philosophic understanding.

The rhetorical explanation for Peirce’s self-censorship fits in well with other apparent efforts in this talk to attract potential philosophers and scientists by igniting an erotic longing for truth among his audience, on the chance that it contains an individual or two capable of real philosophic investigation. We have already seen that progress in

philosophy requires that those pursuing it be “animated by the true scientific Eros” (1898, lecture 1, p. 107), and moreover that philosophy is a blessed activity. In the previous three chapters, we saw that Peirce’s philosophic efforts aim at articulating how truth and reality can still be understood after the skepticism of modernity. Here Peirce points to developments in the field of mathematics to add weight to his claim that philosophy is indeed possible.

Peirce remarks on how wondrous it is that mathematicians in different subfields and without any contact with one another are converging on the same hypotheses:

The host of men, who achieve the bulk of each year’s new discoveries, are mostly confined to narrow ranges. For that reason you would expect the arbitrary hypotheses of the different mathematicians to shoot out in every direction into the boundless void of arbitrariness. But you do not find any such thing. On the contrary, what you find is that men working in fields as remote from one another as the African Fields are from the Klondike, reproduce the same forms of novel hypotheses. (ibid., p. 120)

Peirce provides the following example to illustrate his point:

Riemann had apparently never heard of his contemporary Listing. The latter was a naturalistic Geometer, occupied with the shapes of leaves and birds’ nests, while the former was working upon analytical functions. And yet that which seems the most arbitrary in the ideas created by the two men, are one and the same form. (ibid., p. 121)

This example is not “isolated” but rather “characterizes the mathematics” of Peirce’s time (ibid.). That unconnected investigators, starting from completely different starting places, appear to be uncovering a single mathematical system is remarkable. Thus the “pure mathematician . . . feels” that he is uncovering the “Eternal”:

All this crowd of creators of forms for which the real world affords no parallel, each man arbitrarily following his own sweet will, are, as we now begin to discern, gradually uncovering one great Cosmos of Forms, a world of potential being. (ibid.)

The example of mathematics in turn adds weight to the possibility of philosophy, of uncovering an eternal and objective truth. Peirce promises, moreover, that once one understands the blessedness available by gazing on the eternal forms that are uncovered by philosophical and scientific study—“once you become inflated with that idea”—then matters of practical use and judgment will pale in comparison: matters of “*vital importance*” will seem “to be a very low kind of importance, indeed” (ibid., p. 121; emphasis in original). In other words, whereas matters of vital importance concern simply the particular situation and needs of an individual, the proper subject matter for reason to concern itself with is something much higher: the cosmos as a whole.

What similarly seems to be part of Peirce’s rhetorical strategy, aimed at attracting potential scientists—true philosophers—away from matters of ethics and practical concerns and to the study of philosophy, is his flattering his audience by grouping them with himself in contrast to other thinkers and positions. For example, he groups his audience members along with himself in predicting that they, too, are interested in the purely theoretical study rather than in the practical application of science:

No doubt a large proportion of those who now busy themselves with philosophy will lose interest in it as soon as it is forbidden to look upon it as susceptible of practical applications. *We* who continue to pursue the theory must bid adieu to *them*. (ibid., p. 114; emphasis added)

In the same vein, Peirce includes his audience among those with superior intellectual qualities, in contrast to the common man:

The mental qualities we admire most in all human beings *except our several selves* are the maiden's delicacy, the mother's devotion, manly courage, and other inheritances that have come to us from the biped who did not yet speak. (ibid., p. 110; emphasis added)

With such flattery, Peirce appears to be trying to sweep his audience along with him as he lays out his argument that the proper end of philosophy is knowledge and understanding, and that its pursuit ought to be entirely distinct from the goal of improving men's lives.

VI. Instincts, Sentiment, and the Practical Realm

Let us return to Peirce's argument as to why reason is ill-suited as a guide to conduct and practical matters. Below we will explore what Peirce understands to be the nature of instinct and sentiment, and why he thinks these subconscious drives should guide us in practical matters. We will also explore some of Peirce's more nuanced presentations of the connection between instincts and reason; this examination will reveal that though Peirce maintains the superiority of instinct in practical matters, he also acknowledges a role for the conscious modification of instinct. Understanding this element of his thought gives us a better idea of how, in Peirce's view, a moderate conservatism works; as well as the process by which some individuals—for example, the statesman—are able to modify their instincts such that they develop superior practical judgment.

By "instinct" or "sentiment," Peirce means an inclination that penetrates to the "very core of one's being" (ibid., p. 122). It is "that department of the soul . . . that is

deep and sure” (ibid., p. 121). In contrast, reason is merely the surface of our soul, that part of which we are conscious. Despite these differences, reason and instinct share the similarity that they both develop through our experiences in the world.

Instinct is capable of development and growth,—though by a movement which is slow in the proportion in which it is vital; and this development takes place upon lines which are altogether parallel to those of reasoning. And just as reasoning springs from experience, so the development of sentiment arises from the soul’s Inward and Outward Experiences. (ibid., p. 121)

Meditation and adversity are types of inward and outward experiences by which sentiment develops (ibid.). This development is both “of the same nature as the development of cognition,” and in fact “chiefly takes place through the instrumentality of cognition” (ibid.), as we will see. We should also note that, as we see in the quote above, instinct develops slowly, especially as it concerns important matters; it can not simply be changed “hastily” (ibid., p. 111), or imposed upon by the dictates of reason.

Behind man’s instincts, Peirce sees an evolutionary logic: they aim at the survival of the human race. Instincts thus benefit individuals only to the extent that they can contribute to its numbers.

The instincts of those animals whose instincts are remarkable present the character of being chiefly, if not altogether, directed to the preservation of the stock and of benefitting the individual, very little, if at all, except so far as he may happen as a possible procreator to be a potential public functionary. Such, therefore is the description of instinct that we ought to expect to find in man, in regard to vital matters; and so we do.⁸² (ibid., p. 113)

⁸² It is worth noting that Peirce’s discussion here illustrates well his understanding of scientific knowledge and method: he combines data observed among other groups of animals along with

Man's capacity for self-sacrifice is thus to be expected, and thus not quite praiseworthy:

Instinct does, as a matter of course, prompt us, in all vital crises, to look upon our individual lives as small matters. It is no extraordinary pitch of virtue to do so; it is the character of every man or woman that is not despicable. (ibid.)

There is nonetheless something universal and eternal that is available for man when he follows his moral instincts, for doing so entails disregarding the "discontinuities" of his own particular "will" (1898, CP 1.673). That it is "no extraordinary pitch of virtue" to follow one's instincts of course raises the question of moral responsibility. We will see below that while Peirce makes no claim about man being responsible for his nature or reasoning capacities, he does think that the individual has some role to play in his ultimate adoption of moral ideals. Implicit in here is also the suggestion that philosophy is man's highest occupation precisely because it does not entail simply abiding by a biological urge, as is the case with more practical matters.

Before we address the individual's role in assessing his moral ideals and in the development of his own sentiment, it should be pointed out that evolutionary instinct is not the only thing that influences man's moral and practical sense. Culture also plays an important role. In the draft of the 1898 lecture, Peirce distinguishes between "hereditary instincts"—that which have been bred into the biology of man—and "traditional sentiments"—that which we are inclined to think as a result of our education (1898, CP 1.661). He acknowledges, for example, that an aversion to incest might not be built into

evolutionary theory to put forth a hypothesis about human behavior and psychology, and then looks to empirical data to see whether or not support for that hypothesis can be found. We see that Peirce understands scientific knowledge to begin with the positing of hypotheses; that scientific theories are of a provisional nature ("present the character of being"); and that the more concrete sciences (biology) can help inform the more abstract ones (human psychology).

our DNA but rather must be inculcated somehow into our sentiments. He suggests that it is “tradition and the feelings that tradition and custom have developed” in a man that is at the root of an aversion to incest—at the root of what stops a man from “marry[ing] his own sister” (ibid.). Peirce similarly mentions here the “Brahmin . . . traditional sentiment in favor of *suttee*,” in an acknowledgment of the wide spectrum of things that humans are capable of finding acceptable, depending on their education (ibid.).

That moral sentiments depend on education and culture is similarly expressed in his 1885 review of Josiah Royce’s *Religious Aspect of Philosophy*. He explains in this review, against Royce’s attempt to intellectualize religion, that “a conscience . . . is not a theorem or a piece of information which may be acquired by reading a book; it must be bred in a man from infancy” (1885b/1992, p. 237). In an acknowledgment of the specific education of a Christian upbringing, Peirce continues:

Every man born and reared in a christian community, however little he may believe the dogmas of the Church, does find himself believing with the strongest conviction in the moral code of christendom. He has a horror of murder and incest, a disapproval of lying, etc., which he cannot escape from. (ibid.)

A Christian rearing provides an individual with “a horror of certain crimes and a disapproval of certain lesser sins” and “the spirit of Christian love . . . shall and will govern him in all questions of disputed morals” (ibid., p. 238).

This is not to say that Peirce thinks the teachings or traditions of every culture are equally correct. In his remarks on *suttee*, it is clear that he finds the practice wrong—and not simply from his Christian-raised point-of-view (1898, CP 1.661). He uses the example of *suttee* in fact to illustrate how “sentiment lays no claims to infallibility”

(ibid.). This comment suggests that there is a standard outside of particular cultures by which to judge cultural norms and traditions—for otherwise, sentiment could be nothing but infallible. Peirce furthermore recognizes that the example of suttee raises doubts regarding the soundness of the conservatism he has expounded: The “reflection” that he “might have been born a Brahmin with a traditional sentiment in favor” of the practice “tempts” the conservative “to become a radical” (ibid.). This might then be the type of thing about which the conservative would “advocate radical reforms,” as Peirce explains in the final draft of his lecture (1898, lecture 1 p. 111). “On the whole,” he explains, the conservative “thinks his wisest plan is to reverence his deepest sentiments as his highest and ultimate authority” (1898, CP 1.666).

Thus we have Peirce advocating for a conservative appreciation of man’s biological instincts and inherited cultural norms, while nonetheless quietly acknowledging that there are reasons to doubt the soundness of one’s inherited norms, and thus that there is a limit to the thoughtful man’s conservatism. Yet, in his desire to forcefully advocate separating theory and practice, Peirce leaves us no further guidance as to how such things should be assessed. That Peirce recognized that his treatment of the matter was not adequate is suggested by the fact that he took up the topic again, and in a more nuanced and thoughtful manner. We will look at a 1905 essay in which Peirce returns to the issue of judging the soundness of inherited norms; as well as a draft of a lecture from the 1903 Lowell Lecture series, in which Peirce addresses the role cognition plays in our acceptance—as well as alteration—of our moral maxims.

In his 1905 essay “Issues of Pragmaticism,” Peirce provides further guidance as to the relationship between instinct, inherited cultural norms, and conscious reflection. He

explains that instinct is surest the closer the situation at hand is to “a primitive mode of life” (1905b/1998, p. 349). By the same token, it is doubtful that our instincts can guide us correctly in matters with which we have very little experience—such as understanding the motion of electrons (ibid.). Peirce nonetheless advises that it is “good methodetic to presume” that a matter—even such as the motion of electrons—acts in accord with rather than against our instincts, until “some evidence to the contrary” arises (ibid.). Turning to the matter of judging cultural norms, Peirce similarly cautions against mistaking “paper-doubt for the genuine metal” (ibid.). He illustrates what he means by exploring two examples: “the criminality of incest” and “the belief that suicide is to be classed as murder” (ibid., p. 350).

Peirce first sets out to decide whether each norm is instinctual, thus common to the race, or simply an arbitrary cultural norm; Peirce seems to consider the former to be powerful forces on us, against which reason is powerless, whereas the latter are susceptible to modification through reflection. Incest “excites” a “thrill of horror” in us (ibid., p. 349). This horror is supported by biological concerns but is not fully explained by such concerns (ibid.). There is thus reason to think our aversion to the practice is instinctual (ibid., p. 350). The upshot of this determination, as Peirce sees it, is that, whatever rationalizing a pair of siblings might do to justify the act to themselves, they would still not be able to “shake off” the “conviction of horrible guilt” (ibid., p. 350). Peirce’s understanding, in other words, is that certain primitive instincts are stronger than is our reason, and thus cannot be overcome through the use of reason.

The same can not be said for the “the belief that suicide is to be classed as murder,” however (ibid.). To start off with, Peirce points to “two pretty sure signs” that the belief

is not instinctually ingrained in us: it is culturally dependent—“substantially confined to the Christian world”—and the mind is easily able to discard the belief upon reflection (ibid.). Moreover, to argue in favor of the belief, its supporters largely rely on appeals to authority (ibid.). Taken together, these reflections suggest that “the belief . . . should be set down as dubitable” (ibid.). Once deemed dubitable, a belief is susceptible to the reach of reason. In this particular case, Peirce judges that reason “stamp[s]” the belief “as false” (ibid.).⁸³

This treatment of the relationship between reason and sentiment turns out to be consistent with—and thus helps us make sense of—Peirce’s earlier account in “The Fixation of Belief” that was cited in the beginning of this chapter as an example of a potential tension in Peirce’s thought. In that essay, Peirce encourages men to “overcome” the “old beliefs” that they come to understand to “have no sound basis” (1877, EP 1 p. 122). He explains this they can do by reflecting upon the inadequacy of the method by which these beliefs were originally acquired (ibid.). What is striking in this account, and what seems to conflict with his later warning about mixing theory and practice, is Peirce’s encouraging members of specific cultures to reflect upon the beliefs they were brought up with in order to discard them. As examples he cites the “reformed

⁸³ On display here is the “critical” component of Peirce’s Critical Common-Sensism (which is a consequence of Pragmatism; 1905b/1998, p. 346). Peirce explains that it is this critical component that distinguishes his doctrine from that of the Scots: “The Scotch school appears to have no such distinction concerning the limitations of indubitability and the consequent limitations of the jurisdiction of original belief” (ibid., p. 350).

It is this critical element in Peirce’s conservative caution wherein lies his answer to Skagestad’s (1981) criticism that Peirce does not adequately account for instances in which discarding tradition on the basis of recent scientific findings is in fact the sound thing to do (p. 226).

Musselman” who hangs on to “his old notions in regard to the relations of the sexes,” as well as the “reformed Catholic” who still “shrink[s] from reading the Bible” (ibid., p. 122–123). It thus appears Peirce is encouraging reason to impose itself where sentiment has not lost its grip, simply for the philosophical virtue of “integrity of belief” (ibid., p. 123). Upon further reflection, though, we see that Peirce’s position here is the same as his position in the 1905 essay, albeit with a different emphasis. He explains in “Fixation” that it is not that reason ought to impose itself on sentiment, but rather that sentiment will easily yield in each case so long as reasonable reflection is allowed to take place:

The force of habit will sometimes cause a man to hold on to old beliefs, after he is in a condition to see that they have no sound basis. But reflection upon the state of the case will overcome these habits, and he ought to allow reflection its full weight. (ibid., p. 122)

Thus we see that Peirce is in fact consistent with his treatment of the matter: once genuine doubt has arisen—as we can understand to be the case when speaking of a “reformed Musselman” and “reformed Catholic”—reasonable reflection can, and ought to, overcome sentimental habit if allowed to take place.

Thus we see that, as opposed to biologically ingrained instincts, sentiments rooted in culture are open to reasonable reflection. A belief is not doomed if it is determined to be rooted in culture; this recognition merely opens up the belief to reasonable analysis. A draft of Peirce’s first lecture from his 1903 Lowell Lectures will shed light on the question of how reason ought to go about assessing a particular sentiment.⁸⁴ In this draft,

⁸⁴ The Lowell Lectures were a series of lectures Peirce delivered at Harvard University in 1903, organized by William James.

Peirce gives more space to the role of human agency and elaborates on the role of cognition in the development of instinct, sentiment, and our adoption of moral ideals.

Peirce explains that every man “imbibe[s] in childhood” “certain ideals” of conduct, and that these ideals evolve gradually as a result of a dialectic with the man’s nature and the ideas of those around him: they are “gradually . . . shaped to his personal nature and to the ideas of his circle of society rather by a continuous process of growth than by any distinct acts of thought” (1903a, CP 1.591–1.592). Peirce identifies three reasons a man is usually drawn to his ideals: for their “esthetic quality,” “when a man contemplates them . . . he thinks that conduct fine”; for the expected esthetic effects of an action’s imagined consequences; and for the sake of consistency with his other ideals, “for inconsistency is odious to him” (ibid., CP 1.591). When a man adopts ideals that recommend themselves to him, he “*intend[s]* to make his own conduct conform at least to a part of them,” and then “formulates . . . certain *rules of conduct*” (ibid., CP 1.592). Reflecting upon these rules he has set for himself, and the general ideals on which they are based, “has a certain effect upon his disposition, so that what he naturally inclines to do becomes modified” (ibid.). He foresees future occasions that will require him to act in a certain way based on his rules of conduct, and he resolves to do so (ibid.).

The man’s resolution ultimately becomes an “efficient agency,” by which “one can *forecast* the man’s conduct on the special occasion” to which his resolve applies (ibid.). This “efficient agency” is “hidden in the depths of our nature” (ibid., CP 1.593). Though “we do not know by what machinery the conversion of a resolution” into an efficient agency is accomplished, we are aware of it inside of us as a “feeling of *need*, of *desire*” (ibid.). When we act according to our ideal, as we resolved to do, it is pleasurable (ibid.,

CP 1.594); or, more specifically, when we review our actions in our mind, we are “aware of a certain quality of *feeling*, the feeling of satisfaction—and directly afterward recognize that that feeling was pleasurable” (ibid., CP 1.596). When we judge that an action is in accord with our “general intentions,” this judgment will also be accompanied by a feeling of satisfaction that is pleasurable, and “*deeper*” even than the feeling of pleasure that accompanied our determination that an action was in line with a particular resolution (ibid., CP 1.597).

As a man reviews his actions and determines whether or not he is satisfied with himself, he will—or has the opportunity at least—to absorb lessons and act better in the future.

Whether the man is satisfied with himself or dissatisfied, his nature will absorb the lesson like a sponge; and the next time he will tend to do better than he did before. (ibid., CP 1.598)

Similarly, a man will also continue to review his ideals—a process that is endlessly being contributed to by “the experience of life” (ibid., CP 1.599). This is done first through the depths of a man’s being, and only later reaches his consciousness: his experiences “are digested first, not in the man’s consciousness, but in the depths of his reasonable being. The results come to consciousness later” (ibid.). Conscious meditation on the matter, however, enables a “mass of tendencies” to more quickly “settle down” and “[conform] to what is fit for the man” (ibid.). A man is then “at full liberty . . . to *make his life more reasonable*” (ibid., CP 1.602; emphasis in the original). It thus appears that, as Peirce has presented it, ideals continue to develop as a result of an interplay between the ideals of a man’s youth and the society that surrounds him, his experiences in the world, and his

own instinctive and cognitive nature. Among other things, this process makes some sense of the fact, noted above, that some individuals have more refined instincts and practical judgment than do others.

In the interplay Peirce identifies, pleasure has the role of transmitting information. Peirce explains, though, that his account takes issue with those who argue that man acts from no other motive than pleasure and that there can be “no room for any distinction of right and wrong” when pleasure is a motive to action (*ibid.*, CP 1.603). In fact, our conscious determinations to action work alongside and against our desire for pleasure, and the interplay determines our actions (*ibid.*, CP 1.605). Moreover, so long as man is able to be self-critical and “compare his conduct with a preconceived standard,” then the motive of pleasure does not do away with a standard of right and wrong: “for it would become disagreeable” to a man “to incur the sting of conscience” (*ibid.*, CP 1.604).

The above discussion sheds light on whether Peirce thinks sentiment can be evaluated by reason, and by what process such an evaluation might take place. What still remains unclear, though, is whether a universal standard exists by which sentiment can ultimately be evaluated. If there is no such standard, then it seems all that does exist, in Peirce’s understanding, are individuals’ assessments of right and wrong behavior. These amount to more than mere pleasure, but do not necessarily reflect a universal truth.

I argue that Peirce understands the activity of philosophy—contemplating the whole—to yield a universal standard of judgment. As he explains:

The soul’s deeper parts can only be reached through its surface. In this way the eternal forms, that mathematics and philosophy and the other sciences make us acquainted with will by slow percolation gradually reach the very core of one’s

being, and will come to influence our lives; and this they will do, not because they involve truths of merely vital importance, but because they [are] ideal and eternal verities. (1898, lecture 1, p. 121–122)

Philosophy does not produce simple formulas for acting. It does, however, influence the instincts according to what is universal, as it concerns “ideal and eternal verities” (ibid., p. 122). Though these truths do not yield clear guides for action, Peirce does provide hints about the direction in which philosophy transforms the instincts, which we will explore below. First, though, we will revisit the question of whether there is any room for reason to take up practical subjects like ethics and politics.

VII. Revisiting the Relationship between Reason and Practical Matters

The examination above clarifies what Peirce sees as the appropriate way to study and think about practical matters, as distinguished from the type of intermingling of philosophy and vital matters that he warns against. Peirce explains that his reflections concerning how the individual modifies his sentiments constitute a “personal meditation on the fitness of one’s own ideals” and is an examination “of a practical nature” (1903a, CP 1.600). This is an entirely different activity from those who purport to study ethics theoretically and seek “to ascertain, as a matter of curiosity, what the *fitness* of an ideal of conduct consists in, and to deduce from such definition of fitness what conduct ought to be” (ibid.). The latter is entirely theoretical, and unrelated to how one’s conduct is actually shaped (ibid.), whereas the former is the process by which individuals assess and amend the principles by which they live. Here Peirce acknowledges that there is a place for the theoretical, removed study of ethics in this manner—so long as its character as a

theoretical study, “entirely distinct from the business of shaping one’s own conduct,” be “not lost sight of” (ibid.).

This is consistent with Peirce’s remarks in the draft of his 1898 lecture that he is not against such studies entirely, only in using such studies toward vital or useful ends. The “philosophy of religion . . . seems to me a most interesting study, at any rate,” though it be not “of vital importance” (1898, CP 1.665)—in other words, the study ought to be kept distinct from attempting to study religion not simply for the sake of understanding, but with the intention of trying to influence one’s own beliefs and conduct through this rational inquiry. Similarly, the study of ethics can be, “to a normal and healthy mind, a civilizing and valuable study,” so long as it is “recognized as not being a matter of vital importance or in any way touching the student’s conscience” (ibid., CP 1.669). Even still, though, this study is not of very great value—and is of value at all only to the extent that it is connected to the “great continuum of ideas” (ibid.).⁸⁵

Thus we see that what Peirce specifically objects to is studying ethics with the goal of deriving prescriptions for action. This makes sense given what we have seen about the prudence of leaving such decisions to instinct and sentiment. There is indeed room in Peirce’s view for the dispassionate study of such things, so long as the dispassionate nature of the study is not lost sight of. But though there is this room in Peirce’s view for this study, he nonetheless does not view the study as very interesting.⁸⁶

⁸⁵ Peirce explains the study is “somewhat more [interesting] than the theory of whist, much more so than the question of the landing of Columbus” (1898, CP 1.669).

⁸⁶ See 1898, lecture 1, p. 116–117, for a longer discussion of the types of studies Peirce thinks are most worthwhile, and their relationship to one another.

VIII. The Philosopher's Instincts

Let us now take up Peirce's remark that there is indeed one way in which philosophy can and will influence conduct: namely, by slowly shaping the instincts of the philosopher. While Peirce was not specific in his 1898 lecture about the manner in which he expected the philosopher's instincts to be affected by his study, there are hints throughout his writings as to the effect Peirce expected contemplating the whole to have on a man's inner being: namely, to make clear the interconnectedness of human beings. Let us now examine some of these suggestions and their connection to Peirce's philosophical understanding. This examination will cite some of the examples mentioned at the beginning of this chapter that appeared to conflict with Peirce's warning that theory and practice must be separated; it turns out that, when understood in the proper context, no great conflict exists, and that it is in fact possible to understand Peirce's thought on the matter as largely consistent.

In his 1868 "Some Consequences of Four Incapacities," Peirce explains that his logical investigation reveals that men are highly dependent on one another for knowledge (1868b/1992, p. 52). Man as an individual is marked by his ignorance; it is only as a member of a community—in his connection with other men—that he can hope to be part of the uncovering of eternal truth (ibid., p. 54–55). Similarly, Peirce sees in his defense of scholastic realism and the existence of generals an argument for the existence of something higher than individual man, capable of elevating his particular existence:

The question whether the *genus homo* has any existence except as individuals, is the question whether there is anything of any more dignity, worth, and importance than individual happiness, individual aspirations, and individual life. Whether men

really have anything in common, so that the *community* is to be considered as an end in itself, and if so, what the relative value of the two factors is, is the most fundamental practical question in regard to every public institution the constitution of which we have it in our power to influence. (1871/1992, p. 105)

These conclusions, derived from the study of logic, appear to be at the root of Peirce's teaching in an earlier essay that it is illogical to put one's own interests above those of the community's (1869/1992, p. 81). In a similar vein, Peirce also understands logic to complement well the "correct" element of the "Buddhisto-Christian religion": that one should "recognize a higher business than your business," and aim to overcome one's individual identity and "weld" oneself "into the universal continuum" (1898, CP 1.673).

It is arguably Peirce's understanding of men's mutual dependency that prompts him to minimize the difference between men and cultures and instead emphasize the common membership of individuals in the human race. An emphasis on the similarity among men and the downplaying of what is particular to or arguably superior about Western culture is evident throughout Peirce's writings. In the first Cambridge Conferences lecture, Peirce speaks of how "we" individuals are "mere cells in a social organism" (1898, lecture 1, p. 121). Similarly, when speaking about those "qualities we most admire," Peirce does not speak of anything particular to the Western or Christian tradition, but rather of "man," "human beings," and "all our race," as well as our common ancestor, "the biped who did not yet speak" (ibid., p. 110–111).

Peirce minimizes civilizational differences when he lumps together Buddhism and Christianity in the unused draft of his first Cambridge Conferences lecture, quoted above.

In an 1897 letter to William James, Peirce goes so far as to remark that Buddha is a better embodiment of Christianity than is Jesus:

Christianity, or as we ought to call it Buddhism, for surely the Indian Prince was an incomparably more perfect embodiment of it than the miracle monger of the synoptic gospels. (letter, March 12, 1897; quoted in Ketner and Putnam 1992, p. 10)

An inclination to emphasize the wholeness of the human race, or at least raise questions about a presumed Western or Christian superiority, is arguably also on display in “The Fixation of Belief.” Peirce there mentions the Western prejudice in favor of monogamy, and then raises doubts about the soundness of this prejudice by remarking that Hindus find the Western treatment of women to be immoral (1877/1992, p. 119).

The philosopher’s recognition of his dependency on other men is also connected to the generosity inherent in his investigations. Peirce explains that the true investigator, aware of “his own ignorance,” recognizes that he can only play a small role in the discovery of truth (1901a, EP 2 p. 58). His actions thus aim at benefitting future inquiry and inquirers, and thus the development of knowledge in the long run:

Small as [his steps in discovery] are, he deems them precious; and he hopes that by conscientiously pursuing the methods of science he may erect a foundation upon which his successors may climb higher. (ibid.)

The scientist realizes he only plays a part in mankind’s overall effort to uncover truth and reality.

IX. Conclusion

In summation, we have seen that: Peirce is serious in his concern that a focus on utility will interfere with philosophy and pure science by limiting investigators' scope and turning away potential philosophers. We have also seen that Peirce is sincere in his warning that the findings of philosophy and science, which are inherently provisional in nature, will corrupt ethics and be imprudent to follow in practical matters. Instinct and sentiment, including that sentiment that reflects the individual's experiences and conscious reflections, are far better guides in practical decision making and for acting than is pure reason. While science can take up the study of practical matters like ethics in a completely dispassionate way, it must maintain its dispassion; moreover, such a study will be of only a small amount of interest with regard to man's efforts to uncover and contemplate the whole. Finally, the eternal verities that influence the philosopher's instincts point to the interconnectedness and mutual dependence of human beings; that he recognizes that eternal verities have the potential to influence man's instincts is what saves Peirce from moral relativism. In the next chapter, we will take up the question of the relationship between philosophy and statesmanship through an examination of Peirce's recommendations of the education fit for cultivating leaders of a modern republic, and further examine Peirce's understanding of the connection between reason and practical judgment.

CHAPTER 5

In the last chapter we saw Peirce advocating largely separating theory and practice, explaining that “the two masters, *theory* and *practice*, you cannot serve” (1898, lecture 1, p. 113). We also saw that Peirce’s ultimate understanding of the matter was a bit more nuanced: not only is there room for theory to study practical things—albeit dispassionately—but it is also the case that reasonable reflection can modify instinct and sentiment. Peirce’s reflections on the Christian view of the criminality of suicide provided a glimpse of how this might be done. We also saw some suggestions of how a philosophical understanding might impact a man’s instincts—contemplation of the whole, for Peirce, yields the understanding of the interdependency of men. Despite these examples, the connection among philosophy, reasonable reflection, and instinct—the development of what it seems apt to call practical judgment—is still murky. In the fourth and fifth Cambridge Conferences lectures of 1898, Peirce once more examines the topic of the connection between theoretical study and practical action in a discussion of the education fit for statesmen—for those who will lead a modern republic. Interestingly, whereas in the first Cambridge Conferences lecture Peirce stresses the infallibility of instinct and sentiment for the individual, in the fourth and fifth lectures he argues that universities do no service to either their students or country by entrenching received wisdom. Universities should instead, he explains, be teaching their students the art of reasoning—sharpening their mental toolkit through a myriad of exercises and through confronting new and different ideas from various angles. This suggests, then, that a

philosophic and scientific education is crucial to the proper cultivation of men of action. In this chapter, we will examine Peirce's discussion of the education fit for a modern republic in order to better understand what connection he sees between philosophy and practical decision making, and his views on political matters more generally.

Peirce explains that "the good of the country" requires that American universities be reformed (1898, lecture 4, p. 172). The universities of his time were not contributing to the "advance of civilization" by carrying "forward the human mind to some new and valuable truth . . . one that goes toward enlarging the system of what is already known" (ibid., p. 171). Nor were they grooming men to whom the country could turn for "the solutions of the most urgent problems of each generation" (ibid., p. 172). In contrast, German universities were "the light of the whole world"; the old English universities "in the past gave birth to Locke and to Newton"; and the "medieval University of Bologna gave Europe its system of law" (ibid.).

The reason that American universities were not contributing to the "advance of civilization" was that they were places of teaching, whereas the others were places of learning. The one contributes to entrenching knowledge, whereas the other to advancing knowledge:

In order that a man's whole heart may be in teaching he must be thoroughly imbued with the vital importance and absolute truth of what he has to teach; while in order that he may have any measure of success in learning he must be penetrated with a sense of the unsatisfactoriness of his present condition of knowledge. (1898, lecture 4, p. 171)

Only a "deep sense that one is miserably ignorant" can make a man feel his "need of learning," and thus "spur one on in the toilsome path of learning" (ibid.). Only a man

who is aware of his ignorance can contract “that fever for learning that must consume the soul,” such that he will be able to “infect others with the same apparent malady” (ibid.). Institutions of learning, in other words, require that scholars have an “eagerness to learn,” as well as “freedom from dogmatism” (ibid.).

The awareness of one’s ignorance, which is necessary if one is to be open to learning, is simply an acknowledgment of the attitude of fallibilism that, as we have seen, is required for a true attitude of science. Scientific hypotheses are always merely provisional, only capable of being partially confirmed. A scientific theory does not stand

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. (1898, lecture 4, p. 176–177)

This is difficult to acknowledge because it goes against man’s instincts: “the natural cocksureness and conceit of man struggles to escape such confession of total ignorance” (1898, lecture 4, p. 175). The “first . . . rule of reason,” then, is to quiet down this natural confidence and to recognize that “in order to learn you must desire to learn and in so desiring not be satisfied with what you already incline to think” (1898, lecture 4, p. 178). From this rule of reason there “follows one corollary which itself deserves to be inscribed upon every wall of the city of philosophy”: **“Do not block the way of inquiry”** (emphasis that of author; ibid.). The “one unpardonable offense in reasoning” is to “set up a philosophy which barricades the road of further advance toward the truth” (ibid, p. 179). Common ways in which such a barricade is constructed include: absolute assertions of truth; claims that a matter can never be known; claims that a matter of science is

foundational, with nothing beneath it to know; and claims that a “law or truth has found its last and perfect formulation” (ibid., p. 179–180).

By entrenching received knowledge, or opinion, an educational institution is not going to create a class of educated elite that can adequately offer insight into the country’s “most urgent problems,” but rather only produce men set to “earn handsome incomes” and live in luxury (1898, lecture 4, p. 172). Such an outcome might aim to “benefit . . . individual students,” but it will not be “for the good of country” or “for the speedier elevation of man onto that rational animal of [which] he is the embryonic form” (ibid.). The good of the commonwealth requires that men be trained in the “art of thinking” (1898, lecture 5, p. 181). This used to be a goal of a liberal education. It is more important for the “welfare of the commonwealth” that men have the “power of recognizing the sort of thought and the sorts of methods in which it will be well for the government and public opinion to put their trust,” than that there be “assent of all the citizens to any definite propositions,—such, we will say, as the doctrine of the independence of the executive, legislative, and judiciary functions” (ibid.).

In this discussion we see the main tenets that lie at the heart of Peirce’s views on education and a proper liberal arts university: anti-dogmatism and the noble pursuit of philosophy and science for the sake of reason simply. It is clear how such an image of a university acts to further the end of science, of uncovering the beautiful and sacred nature (1898, lecture 4, p. 176–177). Peirce also claims, however, that a proper liberal arts

education will benefit the commonwealth; how this is so is still unclear.⁸⁷ We will examine Peirce's writings on education as well as his specific curricular

⁸⁷ While several scholars have written about how Peirce's philosophy is connected to the formation of democratic character, or *Bildung*, they focus on how Peirce's recommendations will benefit individual students and not the state or polity as a whole; the common suggestion seems to be that individuals with developed capacities will benefit society simply. These commentators also do not adequately take into account the tension between what Peirce says about the practical benefits of a good education and his professed conservatism when it comes to the application of ideas in the practical realm. Strand (2005a) speaks of Peirce's desire to teach critical thinking to students. Strand explains this is an extension of Peirce's "critical commonsensism," but it seems to me that she misuses Peirce's concept, which is not about applying critical common-sense to everyday life, but about where and how scientific inquiry should start (e.g.: "The Scotch school appears to have no such distinction concerning the limitations of indubitability and the consequent limitations of the jurisdiction of original belief" (1905b, p. 350); "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" (1898, lecture 1, p. 112)). Garrison (2005) uses "critical common-sensism" in a similar way as does Strand (2005a), in other words, as the training of individuals' minds to question received wisdom:

One of the most important aims of education in a pluralistic, communicative democracy is for the young to learn the value of challenging cultural dogma. Esteeming and possessing critical and creative acumen is an important part of the knowledge, attitudes, and values of most worth in a dynamic democracy. . . . Critical common-sensism can contribute to the restoration of genuinely democratic citizenship. (p. 181–182)

Garrison explains further, "a democrat should endorse any pedagogy that educates more imaginative, creative, and autonomous students" (p. 186). Midtgarden (2005) understands Peirce's reflections on the "dependencies and continuities between life world practices and scientific practices" to be a "locus for *Bildung* in the Humboldtian sense" (p. 332). Colapietro (2005) understands Peirce's education recommendations as aiming to cultivate students' capacities, especially their appreciation for the aesthetic and the imaginative. This is to prepare the student for a life of learning, as education is a life-long opportunity, and is not simply a preparation for life. Colapietro refers to Peirce's "sentimental conservatism," but does not acknowledge that this term for Peirce points to the distinction, and indeed tension, between practices fit for science and those fit for practical life. D. Anderson (2005) sees Peirce's pedagogy as involving the "cultivation of a student's overall character," in a manner related to "what German culture understands as *Bildung*" (p. 279). Anderson recognizes in addition that Peirce was interested in improving students by "putting her or him in a better position to act successfully in the world," but by this Anderson seems to intend "success in the world" as simply benefit to the individual student: "Liberal education . . . provides general skills for general aims. . . . For Peirce, success and improvement in life depend on the ability to think proficiently" (p. 280–281). If Anderson intends for such success or cultivation of character to benefit the overall society, he does not explain how it might. The suspicion that Anderson is interested only in what will benefit individual students in their practical lives, rather than society, is bolstered by a point he makes that runs directly contrary to the entirety of Peirce's first Cambridge Conferences lecture: "Peirce

recommendations to try to determine in what way he thinks a proper liberal arts education can yield practical benefit, or benefit the active life. We will begin by examining what Peirce says about what a university ought to be.

I. The University

In 1891 Peirce provided the definition of a “university” for the *Century Dictionary*:

An association of men for the purpose of study, which confers degrees which are acknowledged as valid throughout Christendom, is endowed, and is privileged by the state, in order that the people may receive intellectual guidance and that the theoretical problems which present themselves in the development of civilization may be resolved.⁸⁸ (1891/1952 p. 278)

As we see from this definition, Peirce envisions a university as a place where men can congregate to study together. In Peirce’s terms, it is a place of learning rather than of teaching. The state has an interest in such institutions because they serve the dual purposes of providing “intellectual guidance” for “the people,” as well as aiming to resolve “the theoretical problems which present themselves in the development of civilization.”

The Johns Hopkins University was created on a model that emphasized “original research and the training of specialists” (Fisch and Cope 1952, p. 307). Charles’s father,

. . . recognized that logic, as a normative science, is closely linked to the practical art of reasoning and thus more generally to the conduct of life” (p. 283). The most he offers with regard to political concerns is: “Peirce . . . seemed to anticipate the Deweyan point that sustaining a democracy required of citizens an ability to think well” (p. 287). Ventimiglia (2005) is concerned with the continued growth of the individual student, though he does acknowledge the important Peircean lesson that “the ends of business and the ends of education are not ultimately commensurable” (p. 308). Liszka (2013) focuses on Peirce’s pedagogical view that individuals learn best by doing.

⁸⁸ Thyer-Bacon (2005) faults Peirce for this Western- and Christian-centric definition, claiming it merely reveals his own cultural biases.

Harvard math professor Benjamin Peirce, wrote up a “Working Plan for the Foundation of a University” in 1856 that portrayed a university as a community of scholarship and learning (Benjamin Peirce 1856); Fisch and Cope (1952) explain that Hopkins was in this model and “very like a fulfillment of the family dream” (ibid., p. 280). Christine Ladd-Franklin—Peirce’s student at Johns Hopkins, who went on to teach at Columbia University—spoke of the remarkable intellectual atmosphere at Hopkins in its early days:

For the first time the atmosphere of the great European centers of research had been created in America. . . . Probably there has never been in this country a center of learning where the conditions were more ideal for producing in its best form the joy of the intellectual life. (Ladd-Franklin 1916, p. 716)

Peirce sings Hopkins’ praises on numerous occasions for precisely these reasons; it was the first American university based on the model of what a university should be.

In an 1894 letter to Daniel Coit Gilman, the president of Hopkins who had been involved in both hiring and dismissing Peirce from that university, Peirce explains that Johns Hopkins served as a model for his *Century Dictionary* definition:

I am strongly impelled . . . to express my sense of obligation to you. For of all the impressions of my life, none stands out in finer and nobler relief than that of your conception of a university. (You will find it influenced my definition of *university* in the *Century Dictionary*.) (1894/1952 p. 310)

Peirce had previously expressed to Gilman, while under consideration for a Hopkins post: “You are the only real university in America” (1878/1958 p. 330). Speaking to an American audience in Paris on July 4, 1880, Peirce explains that Hopkins was the first American institution that was properly a university:

It has here [at the Johns Hopkins University of Baltimore] alone been recognized that the function of a university is the production of knowledge, and that teaching is only a necessary means to that end. In short, instructors and pupils here compose a company who are all occupied in studying together. (1880/1952 p. 277)

The faculty and students, studying together, were prolific in their research, serving the goal of furthering knowledge: in “four short years,” with only “half a dozen professors and a hundred and fifty students,”

the members of this little university have published some one hundred original researches, some of them of great value—fairly equal to the sum of what all the other colleges in the land have done . . . in the last twenty years. (ibid.)

Clark University followed the Hopkins model once G. Stanley Hall, a colleague as well as admirer of Peirce’s at Hopkins, became its president in 1889 (Fisch and Cope 1952, p. 307). Peirce lauded Clark under Hall’s leadership in an April 20, 1900, issue of *Science* marking the university’s decennial celebration:

Clark University, in recognizing the pursuit of science as its first object, with teaching—of course, an indispensable means of securing continuity of work—as only a subordinate, or at most a secondary object, has perhaps the most elevated ideal of any university in the world. (1900/1958 p. 334)

He explains in his review that Clark’s goal of pursuing science is not just good for the university or even just for science, but also for its students: “I believe it to be so much the better for the individual students” (ibid.).

II. The University’s Dual Functions

In the 1878 letter to Gilman that Peirce wrote while he was being considered for a Hopkins position, he explains that a university should have two types of students, each

type with its own distinct goals and thus each type requiring distinct treatment. Among the student body, there will be a subset of “special pupils” who ought to be treated as “apprentices in establishment” (1878/1958 p. 328). These, in other words, will be trained to be the next generation of scholars. There will also be “general students”: those who will return to the world after their few years at university (ibid., p. 329). It is presumably these types of graduates that Peirce sees “all of America” turning to “for the solutions of the most urgent problems of each generation” (1898, lecture 4, p. 172).⁸⁹

a. For Man’s Speedier Elevation to a Rational Animal

Peirce’s acknowledgment of the different types of students proper to a university deepens our understanding of his conception of a university’s dual functions, as evident in his *Century Dictionary* definition discussed above. On the one hand it is a place where “rational ideas may be developed and the rationalization of things furthered” (1900/1958 p. 334). This end is really “the only thing that makes the human race worth perpetuation,” and is best carried out through genuinely scientific investigation (ibid.). In his variation of Kantian thought—in which he tries to restore pure philosophy to its privileged position, from Kant’s having subordinated it to moral matters—Peirce explains that philosophy and science have the highest of ends: “the only thing that is really desirable

⁸⁹ That Peirce distinguishes these two types of students is ignored in the Peirce scholarship I have reviewed; see, for example, Strand (2005a); Midtgarden (2005); Garrison (2005); Colapietro (2005); D. Anderson (2005). This neglect is likely due to the fact that this acknowledgment cuts against the democratic manner in which most scholars read Peirce. For only by ignoring the distinction can Strand (2005a), for example, argue that Peirce intends for all university students to be nurtured to be true scientific men (p. 312).

without a reason for being so, is to render ideas and things reasonable” (ibid., p. 332).⁹⁰ It is the resolution of the “theoretical problems” of such disciplines that further the “development of civilization” (1891/1952 p. 278). In the Cambridge Conferences lectures, Peirce expresses this end of the university thus: “for the speedier elevation of man onto that rational animal of [which] he is the embryonic form” (1898, lecture 4, p. 172). In other words, a university ought to further the goal of philosophy and science that we examined in the last chapter, of “gradually uncovering one great Cosmos of Forms, a world of potential being” (1898, lecture 1, p. 121). This is the noble function of a university.

Regarding this end, Peirce sees his age as that of the development of methods. It is an age where the methods of “even mathematics and astronomy” have changed; “chemistry and physics are on completely new tracks”; “linguistic, history, mythology, sociology, biology, are all getting studied in new ways”; and “jurisprudence and law have begun to feel the impulse” and will continue to be affected by the development of new methods (1882, p. 11). Without the right education, Peirce recognizes, an apprenticeship in science could amount to not being much more intellectually enlightening than would be an apprenticeship in a machine shop (ibid.). While the “scientific specialists,” the pendulum swingers and the like,” do important and “useful work,” they do not stand “intellectually much higher than an artisan” (ibid.). The more important places in science will be for those who “succeed in adapting the methods of one science to the

⁹⁰ Cf., what Kant says about the good will: “A good will is not good because of what it effects or accomplishes, because of its fitness to attain some proposed end, but only because . . . it is good in itself, and regarded for itself,” from Section 1 of the “Groundwork of the Metaphysics of Morals” (Kant 1785/1996 p. 50; 4:394).

investigation of another” (ibid.). This is the character of the progress of the previous generation of scientists:

Darwin adapted to biology the methods of Malthus and the economists; Maxwell adapted to the theory of gases the methods of the doctrine of chances, and to electricity the methods of hydrodynamics. (ibid.)

For such work, one needs a “general training of his mind,” and “such knowledge as shall show him how to make his powers most effective in a new direction” (ibid.). Training in logic is what provides this knowledge; “the theory of method will shed much light on all . . . other studies” (ibid.).

b. Providing Intellectual Guidance for the People

It is the reason for the other function of a university—providing “intellectual guidance” for “the people” (1891/1952 p. 278)—that, on the surface, is less clear.

Peirce’s thought, over decades of writing on the purpose of education, points to two main concerns when it comes to “general students”: it seems he thinks that a noble environment like that of a proper institution of learning can have a beneficial impact on men’s morals, especially in a modern democracy where men’s attentions are so often turned to lower things like making money and personal success; and, he thinks it is important for men who are to lead active lives to be able to think for themselves. In his 1878 letter to Gilman, Peirce explains that one of the important lessons that a general pupil ought to carry with him after he leaves the university is what the soul of a scholar is about:

First, the moral lessons of physics and its logical lessons should be branded on the soul of the scholar. Second, [the pupil] should get an idea of what a physicist is: his purposes, his ideas, his methods, his life. (1878/1958 p. 329)

Peirce elaborates on this point in his review of Clark University. There he explains the noble aspirations of the true scientist, who is motivated by “rational ideas” and the “rationalization of things” simply. He is motivated not by wealth or by personal ambition, but by an end beyond himself; pure science “strongly influences those who pursue it to subordinate all motives of ambition, fame, greed, self-seeking of every description” (1900/1958 p. 334).⁹¹

Such qualities Peirce’s own students observed, and were attracted to, in him. Ladd-Franklin explains that Peirce “had all the air . . . of the typical philosopher who is engaged, at the moment, in bringing fresh truth by divination out of some inexhaustible well” (Ladd-Franklin 1916, p. 716). He inspired his students not with a charismatic personality in any usual sense, “but rather by creating the impression that we had before us a profound, original, dispassionate and impassioned seeker of truth” (ibid.). Peirce similarly expresses his views on such matters in a letter to Ladd-Franklin written sometime after 1903, in which he assures his former student that the lack of recognition he has received for the doctrine of pragmatism is not of concern to him:

It is true that I have not received much credit either for pragmatism or any other part of my work. However, as it was not done for the sake of anything of that kind,

⁹¹ While she does not speak explicitly about educating men’s souls in this regard, Strand (2005a) recognizes in Peirce’s thought the importance of the intellectual ethos of a university as compared with the utilitarian mentality of practical life outside of the university.

I have no reason to complain. (Peirce letter to Christine Ladd-Franklin, reproduced undated in Ladd-Franklin 1916, p. 718-719)

Peirce explains that he published his work out of a combination of his own convenience—so he could refer to such explanations of his ideas in other publications—and, more significantly, because “I thought it would be a gain to civilization to have my entire logical system” (ibid., p. 719).

In his review of Clark University, Peirce expresses a similar disdain as he does in his Cambridge Conferences lectures for the state of American universities of his day, who promote themselves as being primarily concerned with furthering the welfare of their students. This is especially egregious when individual well-being is equated with wealth:

Our scientific schools distribute circulars which dwell chiefly upon the handsome incomes their alumni are making, thereby calling up such images as a handsomely laid table with a pair of Havre de Grace ducks and a bottle of Chateau Margaux. (1900/1958 p. 333)

Peirce claims that with such an outlook, these universities accomplish the opposite of their stated goal: “it may be doubted whether any teaching ever anywhere did less to make happy men and women” (ibid.). Individual well-being is not benefitted by being inward-looking—“Whoever makes his own welfare his object will simply ruin it utterly”—but by being in touch with something beyond oneself (ibid.). Modern German universities, Peirce claims, make the benefit of the state their explicit goals, and this “end” is “so constantly in view that the scholars are led to regard their own lives as having a purpose beyond themselves” (ibid.). By promoting ends above and beyond the well-being of the individual, these universities in fact do “great things for their students

personally” (ibid.). Lest we think that Peirce is overly Hegelian in this regard, he makes clear that the benefit of the state is not a sufficiently high standard in his view.

Yet even this is a low view of learning and science. No reader of this Journal [*Science*] is likely to be content with the statement that the searching out of the ideas that govern the universe has no other value than that it helps human animals to swarm and feed. (bracketed note by editor; 1900/1958 p. 333–334)

Rather, a properly noble standard is philosophy or science—the furthering of reason—simply, as discussed above. By encountering men motivated by such a noble goal, ordinary pupils will have their sights raised—they will recognize there are goals beyond mere utility and individual success and comfort—and thereby be benefited. A university ought, in other words, to offer an important antidote to the sights and goals of practical life.⁹²

A proper encounter with the intellectual life is not simply desirable for the moral benefit of encountering the nobility of the philosopher or scientist; a proper education ought also to train men to be able to think for themselves. Writing in 1905 in a notebook for summer school lectures that were never delivered, Peirce explains that his goal while a professor at Hopkins was to teach his students to think for themselves:

As I used to do at Johns Hopkins . . . I should do all I could to make my hearers think for themselves. . . . I should insist that they must not suppose that my opinions were bound to be correct, but must work out their own ways of thinking. (1905a/1952 p. 278)

⁹² Strand (2005a) makes a similar observation about a university’s role in counterbalancing the focus on utility and personal ambition of practical life. However, she does not recognize the important distinction Peirce makes between those who work to benefit the state and those who work for the higher goal of reason simply; though she is right that Peirce holds up the European goal as higher than the goal of American universities who advertise their benefits to individuals simply.

Peirce makes clear he is not here simply referring to his “special students,” but rather has in mind benefit to, and thereby the appreciation of, students who were to go on to lead active lives: “by which I earned the gratitude of men who are useful to mankind” (ibid.). Peirce expresses a similar thought in a March 1910 letter to William James when, in arguing for the benefit of his courses on logic, he claims that his former Hopkins students recognize the beneficial impact his courses on logic had on their abilities to think: “My Baltimore class assures me of that; for I did something for them” (1910/1952 p. 278).⁹³

III. Peirce’s Curricular Recommendations

These two goals—raising men’s sights and teaching them to think for themselves—provide us with some insight as to the potentially practical function Peirce envisions for a proper university. Let us now examine the precise educational program and curricular recommendations Peirce makes in various places over the years, including in the Cambridge Conferences lectures. We will examine the educational regimen he recommends for both special and general students. We will then analyze these recommendations: we will try to understand their virtues while we ask whether they are sufficiently prudent—whether they sufficiently reflect Peirce’s conservatism and humble appreciation for the limits of theory in the practical realm.

⁹³ D. Anderson (2005) sees this concern—teaching men to think for themselves—as aimed at liberating individuals: “from manipulation by others”; “it empowers one to develop one’s own ideas,” which Anderson understands to be viewed by Peirce as “the essential human activity”; and it “allows one to become persuasive to others” (p. 286–287).

a. Special vs. General Students

Peirce envisions the apprenticeship of the “special pupils” to be a hands-on educational experience, wherein they are treated as partners in learning.

They should be made to feel that they were doing real and important work which was to appear in the digests of science and for the accuracy of which they were responsible. (1878/1958 p. 328)

They should be left to work out on their own the solutions to mathematical problems, as well as to “study out new methods and make designs for new instruments” (ibid.). Such students should be subject to frank criticism that is not softened out of concern for their feelings (ibid.). Professors should share with these students their thought processes, as much as possible, as they embark on a course of research (ibid.). The apprentice should be given much responsibility, and not be spoon-fed his education; the apprentice, for his part, will have to “put forth a strong volition” in entering upon an investigation with a professor (ibid., p. 328-329).

In an article entitled “Charles S. Peirce as a Teacher,” Peirce’s former student Joseph Jastrow—a professor at the University of Wisconsin—shares his experience of being in a small band of Peirce’s apprentice students, those who were “admitted to his circle” (Jastrow 1916, p. 725). Jastrow explains that, along with a “refined shyness,” Peirce’s “nature was generously hospitable; he was an intellectual host” (ibid.). It was for this reason that “he was eminently fitted to become the leader of a select band of disciples”; for “he had the pedagogic gift to an unusual degree, had it by the dower of nature” (ibid.). Peirce’s students became “members of his ‘scientific’ fraternity”: “Greetings were brief, and we proceeded to the business that brought us together, in

which he and we found more pleasure than in anything else” (ibid.). He met his students on “terms of equality” that were, at the same time, “not in the way of flattery, for they were too spontaneous and sincere” (ibid.).

Peirce’s practice of encouraging “cooperation and [the] delegation of responsibility” in research was one of his “pedagogical device[s]” (ibid.). Jastrow relays how, after having his “first real experience of intellectual muscle” in Peirce’s logic courses, his professor “stimulated my self-esteem by entrusting me, then fairly innocent of any laboratory habits, with a real bit of research” (ibid., p. 724). The results of their research project were published under both their names in the *Proceedings of the National Academy of Science* and greatly influenced Jastrow’s own later book on *The Subconscious* (ibid.). In another instance, Peirce asked Jastrow to lecture for him during one graduate class on logic, as he was going to be absent; Peirce ended up joining the class halfway through, but “insisted upon” Jastrow’s “concluding the exercise” (ibid., p. 725). Jastrow remarks:

I know of no more enlightening comment upon the atmosphere of the place and the day than that the procedure was accepted naturally by all concerned except myself. (ibid.)

For Jastrow, the “privilege of association in the cooperative spirit with a master mind” was inspiring and of utmost help (ibid., p. 726).⁹⁴

Peirce acknowledges in his letter to Gilman that the right education for the general student is more difficult to determine than is the education for the apprentices, the

⁹⁴ And was, moreover, why “the example of Charles S. Peirce will continue to remain a cherished memory” (Jastrow 1916, p. 726).

“special students” (1878/1958 p. 329). In this letter, Peirce voices more appreciation than he does in his 1898 lectures for the need for teaching at a university. As opposed to the scholar-apprentices, the general students will need “lessons” (ibid.). These lessons should be a combination of “recitation” and “lecture” (ibid.). The instructor should aim for “something attainable” for his students to carry with them once they leave university (ibid.). Peirce indicates here that matters like “the main laws of physics . . . in a hundred applications” ought to be taught; matters like the “calculations of vapor densities” need not be (ibid.). In other words, this education ought to promote experience with general scientific theories and their applications, rather than concern students with obscure derivations and calculations that will likely interfere with the general students’ comprehension of the big picture.

b. The “Art of Reasoning”

In his Cambridge Conferences lectures, Peirce presents a course of education that aims to strengthen men’s art of thinking. Peirce explains how his proposed education offers ideal training for those who will be able to address “the most urgent problems of each generation” (1898, lecture 4, p. 172). It is an education that will promote the “welfare of the commonwealth” (1898, lecture 5, p. 181). This education will also, of course, aid “the speedier elevation of man” (1898, lecture 4, p. 172). Thus it seems that Peirce’s curricular recommendations from the Cambridge Conferences lectures apply to the training of both groups of students. Both groups of students require a rigorous intellectual training that will strengthen the capacities that go into thinking clearly and well.

Peirce explains that the “very focus and centre” of a proper liberal education ought to be “the art of thinking” (1898, lecture 5, p. 181). Indeed, this used to be the focus of liberal education before “the vogue in this country of the Herbartian pedagogy” took hold (ibid.). The “trivium”—grammar, logic, and rhetoric—which was the “staple of instruction in the Roman and medieval schools,” bespeaks the understanding that the “art of reasoning is the very essence of education” (1887/2000 p. 30). In “Logic and a Liberal Education,” the outline of a lecture that was published in an 1882 issue of the *Johns Hopkins University Circulars*, Peirce explains that “a young man’s attention ought to be directed,” upon his arrival at university, to the “great end” of “improving his logical power and his knowledge of method” (1882, p. 11). He “ought to keep” sight of this end “during the whole period of his studies,” and use his training in logic to frame the rest of his studies: “he will do well to review his whole work in the light which an education in logic throws upon it” (ibid.).

A training of the mind’s reasoning abilities makes the mind more versatile, stronger, and flexible. As the body needs exercise and training, so does the mind: “I do not know why a man should not devote himself to the training of his reasoning powers with as much assiduity as to corporal athletics” (1898, lecture 5, p. 181). Such strengthening is necessary to make the mind flexible and versatile, so that it can act with adroitness when it faces new circumstances, which it inevitably will. Training in logic gives the mind that strength and flexibility.

Reminiscent of his views on the fitness of instinct, Peirce explains that intuitive knowledge—knowledge that we gain through our experience and know at the subconscious level—is sufficient in familiar circumstances. However, in what is also

reminiscent of Peirce's remark that instinct is not reliable the further one is from primitive man's existence (1905b/1998, p. 349), Peirce explains here that when we face new circumstances, assessing matters and judging the appropriate response requires a well-trained mind. Peirce explains in the outline of his 1882 lecture:

The theory of any act in no wise aids the doing of it, so long as what is to be done is of a narrow description so that it can be governed by the unconscious part of our organism. . . . But when new paths have to be struck out, a spinal cord is not enough; a brain is needed, and that brain an organ of mind, and that mind perfected by a liberal education. And a liberal education—so far as its relation to the understanding goes—means *logic*. (1882, p. 11)

For, "although a man needs not the theory of a method in order to apply it as it has been applied already," the work of new circumstances requires that a man has a "general training of his mind and such knowledge as shall show him how to make his powers most effective in a new direction" (ibid.). "That knowledge," which helps the mind in new circumstances, "is logic" (ibid.). Logic, in the sense Peirce intends here, is "the *art of devising methods of research*"; it "will tell you how to proceed to form a plan of experimentation" (ibid.; emphasis in original).

A flexible mind that can adapt well to new circumstances is crucial because change is inevitable. Both the "fortunes of the Rothschilds" and the "existence of the human race" will come to an end (1898, lecture 4, p. 174). Peirce sees chance and variation as inherent to the world—as that which drives evolution, which is necessary (e.g., 1898, lecture 7). A country's elite will be best able to respond to the inevitable change if its minds are trained to be strong and versatile, rather than if it is simply taught that it must "assent . . . to any definite propositions"—for example, "the doctrine of the

independence of the executive, legislative, and judiciary functions” (1898, lecture 5, p. 181).

c. Training Men’s Powers

An education that is properly interested in “training . . . men’s powers” focuses on perfecting the performance of each of the three “mental operations that enter into the business of inquiry”: observation, experimentation, and habituation (1898, lecture 5, p. 181, 182). Doing logical exercises or reading logical texts—Peirce cites “the first book of the *Novum Organum*” and “Locke’s *Conduct of the Understanding*,” among others—will be of some use, but they alone will not “suffice to develop the reasoning powers” (ibid.). The mental powers will be best strengthened if each of the three components of inquiry are exercised in a variety of ways that encourage strength, stamina, and flexibility. As we will explore below, Peirce’s curricular recommendations aim to promote flexibility and agility by working through mathematical and chess problems, and practice viewing things and ideas from different angles and points of view. Resounding throughout Peirce’s curricular recommendations is his theme of anti-dogmatism, which is at the heart of his thought on science and philosophy in general, as well as his understanding of what a university ought to be. The “way of inquiry” ought not be blocked (1898, lecture 4, p. 178). It is important that the mind be able to deepen and broaden its understanding, and not be hampered by its pre-established notions.

To foster a flexible mind that can see beyond pre-established notions, Peirce suggests exercises that strengthen the mind in different but complementary ways. He recognizes it is important to see matters from different angles, and similarly to understand

how others think. Peirce recommends exercises that train one in being able to quiet down one's consciousness and be more attuned to what the subconscious understands. He moreover recommends repetitive and rigorous practice of mental games to increase the mind's stamina—math and chess are helpful to this end, as are rigorous note-taking and simply the exercise of making a great effort. Similarly, one's powers of esthetic discrimination and powers of judging people's characters are important to strengthen because of their reciprocal strengthening of other functions more clearly connected to rational thinking. Let us now turn to his specific recommendations.

(1) Observation

Peirce explains that observation occurs both consciously and subconsciously (1898, lecture 5, p. 182). These two parts of observation “are of almost contrary natures” (ibid.). Subconscious observation entails an induction, “by which upon repeatedly reviewing an object of perception a certain element of it acquires great associational potency,—that is, has a magnified tendency to call up other ideas” (ibid.). Conscious observation, by contrast, entails putting into concepts and words that which one observes; it “consists in moulding [*sic*] in the upper consciousness a more or less skeletonized idea until it is felt to respond to [the] object of observation” (ibid.; brackets by editor). Honing one's observation skills entails focusing on that of which one is subconsciously aware, and suppressing “the egotism and conceit of the upper consciousness” (ibid., p. 182–183). For while one's conscious observation “is quite indispensable if one is trying to form a theory of the object in hand,” such conceptualizing “goes a long way toward breaking down,

denying, and pooh-pooing away, all the fineness of the subconscious observation” (ibid., p. 182).

Peirce’s suggestion seems to be that thinking well requires fine-tuned perception, where one’s preconceived notions do not blind one to accurately seeing what is in front of him. Observation is at its best the art of suppressing the conception that the mind imposes on what is around it, while tapping into that of which the mind is subconsciously aware.

In observation, the most essential condition is passivity, the inhibition of the natural tendency to meddle, to conjecturally emend, the dicta of Nature. (ibid., p. 187)

This type of perception thus requires both self-awareness and a flexible mind that can see beyond its conscious understanding. While good skills of observation do not necessarily translate into good reasoning, one can not reason well without them (ibid., p. 183).

Observations are made of three distinct genera: the qualities of objects, the experienced facts of relation, and the “relations between the parts of an image one’s own phantasy [*sic*] has created” (ibid., p. 183). Training in observing each genera is needed. Mastering each type of observation strengthens the intellect—one can not begin to try to understand what one experiences if one does not have a firm grasp on just what one is experiencing.

With regard to qualities of objects, there are three types of observational powers: sensible discrimination; emotional, such as esthetic, discrimination; and psychical discrimination (ibid., p. 183-184). Training in one of these types increases the mind’s power to observe the other types (ibid., p. 183). One’s “powers of observational discrimination” are “most important in reasoning”; they ought to be trained by “means of

systematic exercise”—such as, for example, “practice with a photometer or colorbox” (ibid.). When observing external “*things*,” it is important to examine them from different angles; “you can handle a thing, turn it over, view it from different sides, and even avail yourself of instrumental aids to observation” (ibid., p. 185-186).

Observing the characters of men is different from observing things. If one is disciplined and systematic, as well as a keen observer of such matters, it can be possible to have a good reading on the people one comes across; to be able to “tell accurately how any important man would feel about any given matter” (ibid., p. 186). Great “literary artists” can showcase impressive “power[s] of discrimination” regarding men’s characters and psychology; Peirce mentions Theophrastus, Maupassant, and George Eliot as examples (ibid., p. 184). Their observations are that which the “not too fine reader” would recognize as familiar (ibid.).

When observing one’s own character, Peirce advises against “a certain kind of fascinated introspection,” wherein you “look at yourself as nobody else will ever look at you, from a narrow, detached, and illusory point of view” (ibid.). Rather one ought to strive to see oneself as others do: “See yourself as others would see you if they were intimate enough with you” (ibid.). While it is “highly needful” for a man to “search his heart somewhat,” the “great [thing] is to become emancipated from oneself” (ibid.). Peirce thus appears to be cautioning against a psychoanalytical fixation on the subconscious, and promoting rather a healthy self-awareness wherein one understands how one comes across to others, or from a more objective point of view.

Finally there is the matter of observing “objects of our own creative fancy” (ibid., p. 186). As with observing external things, the things of our imagination have different

elements: the sensuous; “relations between different parts of the object, whether as coordinate parts or as governing one another”; and, “the system, the form, and the idea of the whole” (ibid.). The sensuous imaginative power of artists and musicians is “conducive to good reasoning on the whole,” and is a power that can be strengthened with practice (ibid., p. 187; and footnote 4, p. 286⁹⁵). Playing chess and solving math problems can help strengthen the mind’s power of “accurately dealing with the relations of parts of an image” (ibid., p. 187). Observing “systems, forms, and ideas,” the “highest kind of observation,” is best strengthened through “the study of pure mathematical theories” as well as “practice in making ourselves such theories” (ibid.). The “study of mathematics” is a great “discipline for the mind” (ibid.).

(2) Experimentation

Training in experimentation entails training in stamina: its “most essential ingredient is energy, perseverance, in short, strong work of the will, both external and internal” (ibid., p. 187). Strengthening the will power is important for strengthening the powers of reasoning (ibid.). Difficult activities that require much effort—including physically difficult activities, like lifting “a thousand pounds dead weight three times a week”—can do much to steel one’s will power (ibid., p. 187). “Do that and you will not dread this or that line of thinking as too difficult and mathematical” (ibid.).

“Perseverance” is required in experimentation so that different suggestions are sufficiently examined and their “advantages and disadvantages” are sufficiently traced

⁹⁵ This latter citation refers to lines from a draft of the lecture that it seems to the editor of this volume of Peirce’s Cambridge Conferences lectures that Peirce crossed out, likely due to time constraints.

out (ibid., p. 188). Strength is not sufficient, however. Experimentation also requires flexibility and creativity: “an agility of creative imagination” as well as a “*flair*” for picking out “the suggestions probably best worth study” (ibid.).

Peirce probably also has in mind here lessons in the economy of research—a topic about which he wrote often. For example, he explains in a 1901 article that it is “excellent economy” to first test a hypothesis that can be “disposed of by a single easy experiment” (1901b/1998, p. 73). Once a hypothesis has been provisionally adopted, “the effort ought to be to search out the most unlikely necessary consequence of it” and then bring it “to the test of experiment” (ibid., p. 73–74). In other words, every effort should be made to disprove hypotheses through experiment; for, the more a theory holds up to such testing, the stronger it can eventually be viewed: “If, notwithstanding its unlikelihood, the prediction is verified . . . one begins to doff one’s cap to the rising star that nature herself seems to favor” (ibid., p. 74).

Such skills are best developed through “systematic experimentation” that engages an “active mind” (ibid., p. 188). “Detached exercises” can not teach anything (ibid., p. 188). Only exercises in which one is invested are “potent instruments of learning” (ibid.). In a parallel to passive observation, active experimentation is conducted upon “images of our own creation,” in other words, diagrams and equations; “outward things,” in what we consider traditionally scientific examinations; and “persons,” psychological and sociological studies (ibid., p. 188–189). Working out chess problems “makes a tolerably good practice” for training in the skills and proper mindset of experimentation (ibid., p. 188).

(3) *Habitation*

Being good at habituation means easily taking up and discarding mental habits—mental habits being the association of ideas that the mind subconsciously makes as it experiences life (ibid., p. 189). Mental habits are generalizations, inductions we subconsciously make as we experience the world (ibid., p. 191). Peirce explains that the most “useful” of mental habits is being able to “easily [take] up and easily [throw] off mental habits” (ibid., p. 189). This requires the mental “plasticity of childhood”—in other words, keeping your mind flexible like that of a child, who is able to easily absorb new information as well as discard old conceptions (ibid., p. 191, 192). Thus we see in the power of habituation a theme similar to that of observation: the importance of training the conscious understanding to be nimble such that it can be open to new information, which it seems it will be often or best informed of by the subconscious.

Such plasticity of mind is essential for learning new things:

So far as a man is to be a learner, a *philo*-sopher, it is most essential that he should preserve [the plasticity of childhood]; and to do so he has to battle against a natural law of growth. To be a philosopher, or a scientific man, you must be as a little child, with all the sincerity and simple-mindedness of the child’s vision, with all the plasticity of the child’s mental habits. (ibid., p. 192; emphasis in original)

This is directly at odds with the disposition required of “a teacher, or an exponent of a fixed idea, or a mechanic at any immovable trade, or a settled man in any respect” (ibid., p. 192). This continues, in other words, Peirce’s anti-dogmatic theme. For only a sufficiently open mind will be able to deepen its understanding and learn new things; only if one is aware of what one does not know can one be sufficiently motivated to learn.

“Extensive reading” promotes this flexibility of mind; Peirce suggests a hundred books a year if a hundred good books can be found (1898, lecture 5, p. 192). One must not read in a passive manner, but rather actively engage the texts by putting oneself in the mindset of the author and attempting to understand his way of thinking. Such a practice will help broaden one’s understanding:

Real reading consists in putting oneself into the author’s position, and assimilating his way of thinking. Conversation with all sorts of people whom we do not altogether understand, freshens the mind. (ibid.)

Yet again we see Peirce recommending exercises that entail examining matters from different angles, whereby the mind is both broadened and sharpened. If interesting people and sufficient numbers of good books can not be found, Peirce recommends setting aside time for personal reflection—“a suitable dose of rumination and solitude” (ibid.). This too is not passive, but ought to be filled with “intense and systematic activity of the most definite and diagrammatic thought” (ibid.). Exercises particularly suited to strengthening the power of habituation are those in “divisions and classifications,” “definitions and the logical analysis of ideas,” and “in compacting theories or trains of reasoning” (ibid.).

Here is a good time to remark on Peirce’s own reading habits. In explaining the development of his thought and the doctrine of pragmatism, Peirce explains that he read widely—and each text carefully and closely—among the great works of science and philosophy. He was first pulled into philosophy—and affected thereafter⁹⁶—by his

⁹⁶ Young (1952) remarks: “Kant was the earliest and most persistent influence in [Peirce’s] development, with Schelling and Hegel running close seconds”; and, moreover, that Peirce refers to Kant as the “King of modern thought” (CP 1.369) (p. 275).

reading of Kant's *Critique of Pure Reason* as a teenager; he poured over the text so carefully and often that he "almost knew [it] by heart" (1907/1998, p. 424). He also dissected its arguments with his father: "my father, who was an eminent mathematician, pointed out to me lacunae in Kant's reasoning which I should probably not otherwise have discovered" (ibid., p. 423).

From his study of Kant, Peirce explains he was "led to an admiring study of Locke, Berkeley, and Hume," and of Aristotle, his "*Organon*, *Metaphysics*, and psychological treatises" (1907/1998, p. 423). Josiah Royce and Fergus Kernal (1916) remark that "Aristotle, Peirce read in the original carefully and for many years" (p. 708). They also comment on Peirce's "very great interest" in scholastic philosophy (ibid.). Peirce himself explains that he conducted a "deeply pondering perusal of some of the works of medieval thinkers," from which he "derived the greatest advantage": "St. Augustine, Abelard, . . . John of Salisbury, . . . St. Thomas Aquinas, . . . John of Duns, the Scot, . . . and from William of Ockham" (1907/1998, p. 423–424). Young (1952) remarks on the important influence that other thinkers had on Peirce's thought as well: Hegel and Schelling most prominently; the "British mathematical logicians, Boole, De Morgan, and Venn"; as well as others in the British and German philosophical traditions, from "Locke through Spencer" and "Leibniz through Schelling" (p. 275–276).

That Peirce both read extensively and included extensive reading in his curricular recommendations is especially striking in today's context, in which "laboratory-men" and "experimentalist type[s]" (as he describes himself, 1905c/1998 p. 332) are at best indifferent to and at worst disdainful of philosophy broadly understood, as comprising not only science but also the foundations of science. Similarly noteworthy is the fact that

Peirce thought important insight could be found in the nonscientific texts of great “literary artists” with impressive “power[s] of discrimination” regarding men’s characters and psychology (1898, lecture 5, p. 184), as discussed above. Peirce’s suggestions make sense in his own context, of course, given the intellectual—as opposed to practical—goal of his philosophical project.

(4) Summary

Peirce’s recommendations for the training that ought to be at the center of a liberal arts education, in total, aim at developing the art of reasoning so that students can learn to “think for themselves” (1905a/1952 p. 278).⁹⁷ His recommendations concern three key elements of thinking: observation, experimentation, and habituation. Observation is a passive endeavor, and fine-tuning one’s skills involves quieting down the consciousness and paying attention to that of which the subconscious is aware. Experimentation is active, and requires strength, stamina, and creative thinking. Habituation seems to involve consciously taking control over that which generally occurs subconsciously. From Peirce’s advice that objects be examined from different angles, to his suggestion that it is useful to read many books actively and get into the mindset of each author, we see an emphasis on comprehending various viewpoints and expanding one’s initial understanding of a matter. We also see the importance of mental exercises involved in games of chess and the working out of mathematical problems for training the mind to be

⁹⁷ D. Anderson (2005) explains that Peirce is interested in teaching the art of reasoning, not merely “a mechanical operation”: “One has to learn how to ask appropriate questions, how to doubt, how to identify anomalies, how to imagine solutions, how to generalize, how to conduct experiments, and so forth. . . . One must learn to recognize sources of genuine doubt that call us to inquiry” (p. 283).

sharp and versatile. The themes this education plan aims at are mental strength and versatility, as well as intellectual openness.⁹⁸

IV. Practical Benefits of a Liberal Arts Education

As we have seen, Peirce thinks that it is important to train future scientists—the apprentices—in critical thinking and logic so that they will have the capability to apply the methods of one area of study to another. It seems the suggestions given here would indeed further that goal. We also saw the important moral impact Peirce envisioned being around true scientists would have on general students; that men motivated by the noble pursuit of truth for its own sake would be a healthy counterbalance to the career, financial, and social ambitions of practical life. We can see how general students would be benefitted in this regard by observing true scholars and scientists.

The question we are left with is how the liberal arts education Peirce proposes will be a benefit in the practical ways Peirce also claims. How will it train an elite who can come up with solutions to the country’s “most urgent problems”(1898, lecture 4, p. 172)? How will it benefit the “welfare of the commonwealth” for men to have the “power of recognizing the sort of methods in which it will be well for the government and public opinion to put their trust” (1898, lecture 5, p. 181). And indeed, what are these methods?

To better comprehend Peirce’s understanding of the practical benefits of his proposed curriculum, we will explore the matter from different angles. We will first examine what is deficient about the alternative: what is problematic about teaching

⁹⁸ Strand (2005b) emphasizes the importance of anti-dogmatism in Peirce’s views on knowledge and education.

doctrine rather than critical thinking skills? Why would institutions of teaching not be a help to either students or country? We will then have to try to answer why institutions of learning might be more beneficial. Finally, we will analyze whether Peirce's presentation is indeed adequate. To aid our evaluation of Peirce's proposals we will look at John Dewey's writings on education, as Dewey in certain respects attempts to fill in apparent deficiencies in Peirce's proposals. A comparison of Peirce's and Dewey's positions that brings out their respective strengths and weaknesses will shed light on Peirce's recommendations and his likely underlying motivations and concerns. Through this we will gain a greater understanding of the value for a modern republic of a liberal arts institution that has as its primary goal promoting the art of reasoning.

a. Problem with Teaching Doctrine and the Goal of Social Stability

When making the case for a proper liberal arts education in his Cambridge Conferences lectures, Peirce hints at one reason why merely accepting doctrine uncritically is not good for the "welfare of the commonwealth." When remarking that it would be better for "all the citizens" to recognize in which methods it would be "well for the government and public opinion to put their trust," rather than simply "assent . . . to any definite propositions" such as "the doctrine of the independence of the executive, legislative, and judiciary functions," Peirce adds that the different branches of government are "after all . . . easily made handles for bosses" (1898, lecture 5, p. 181). By bringing the reader's attention to the fact that the political machines of his day belied the Constitution's separation of powers, Peirce points out the very important difference between the ideal and the real. This, it seems, is in effect a practical application of his

pragmatic maxim: do not simply understand a matter by what it purports to be, but by how it is in practice—by its practical effects.

Peirce does not dwell on the example he here raises; he only mentions it as an aside and thus leaves his full thoughts ambiguous. The example points to the suggestion, though, that a political system might become more in line with its ideals if there was an elite who questioned the status quo and pointed out the discrepancy between a country's principles and its practices. This could be understood as a quietly radical suggestion—one that seeks to upend the political order in order to make practice align with our ideals. At the same time, in this same lecture Peirce echoes a point he made in his first lecture of the series: that it is unwise to “carry an idea to extreme lengths” in “practical matters” (ibid., p. 192–193). This is, importantly, in contrast to the realm of “speculative thought,” where carrying an “idea to extreme lengths” is “the greatest of locomotives for advancing upon the road to truth,” for it is “the extreme cases which alone” can “teach . . . anything new” (ibid., p. 193). The suggestion is further qualified by Peirce's discussion, explored in the previous chapter, of the way in which our ideals are themselves moderated through our experiences (1903a, CP 1.599). Thus we see that on the one hand, Peirce speaks about the importance of teaching those methods in which government should put its trust and points out the discrepancy between the ideal and real in the practical realm; yet on the other hand, he calls for prudence in practical matters, and reaffirms the distinction between what is appropriate for theoretical inquiry and what is prudent for practical action.

Peirce's recognition of the difference between the theoretical and the practical and the importance of moderation and caution in practical action suggests that wise practical

judgment is needed to understand how to respond to the political situation he identified in which reality does not line up to our ideals. Why then does he not incorporate more explicitly moral instruction in his curriculum in order to cultivate that prudence in students? One would similarly expect a civic component—teaching such constitutional principles as that which we saw Peirce dismiss, namely the separation of the three branches of government—to be part of the education plans of someone who recognizes the need for cultivating prudence in men of action. Such principles in the American context reflect, after all, the insight of the American founders on the best way to structure a liberal government, with which it would seem useful for statesmen to be familiar. It is all the more puzzling, therefore, that Peirce does not include a moral nor civic component to his curricular recommendations, and even explicitly denounces inculcating students with “any definite propositions.”

As we examine the lack of a moral and civic component in Peirce’s curricular recommendations, there is another important aspect of his thought to note: Despite Peirce’s apparent practical conservatism, he does not think social stability is a valid goal for scientists to pursue. Peirce lumps such a goal in with efforts that close men’s minds and entrench an arbitrary social situation. In his review of Clark University, for example, he points out how very un-American the goal of ““the stability of society”” indeed is: “This is truly a British phrase, meaning the House of Lords and vested rights and all that” (1900/1958 p. 332). In a disparaging review of a work of British scientist and advocate of eugenics Karl Pearson—whom, Peirce explains, makes the stability of society and the promotion of its welfare the *summum bonum* of his Darwinian ethics—Peirce explains that the goal of social stability simply aims to maintain the traditional standards of society

against those that are innovative or unconventional (1901a/1998, p. 57–58). Peirce sees Pearson’s call for “the stability of society” to be nothing but the British professor’s “narrow British patriotism” (ibid., p. 60).

In his criticism of Pearson, Peirce admits that Britain has been an important center of civilization in recent history: “I am willing to grant that England has been for two or three centuries a most precious factor of human development” (ibid., p. 60). The goal of permanent social stability is nonetheless both impossible and unworthy:

To demand that man should aim at the stability of British society, or society at large, or the perpetuation of the race, as an *ultimate* end, is too much. The human species will be extirpated sometime. (ibid., p. 60)

For one thing, England’s facilitating human development was not due to anything that was particularly British. England’s success was not, after all, simply due to its Englishness; “there were and are *reasons* for” it (ibid., p. 60). Rather, such development can and will occur in other places at other times. The society as it stood in its current form was thus not worth preserving simply.

Peirce’s concerns about the goal of preserving social stability appear to be at least partly founded on his desire to promote true science and protect it from lower, corrupting motives. The “doctrine that social stability is the sole justification of scientific research” is insufficient to “[animate] the labors of scientific men”; in addition to it being “bad ethics,” it would also “retard the progress of science” (ibid., p. 58). Pearson’s goal of social stability is, moreover, harmful because it bolsters those who make up the “great majority of the members of many scientific societies”: those who are chiefly concerned

with their own self interest—“gaining money”—and who hold pure science in contempt (1901a/1998, p. 61).

Now, to declare that the sole reason for scientific research is the good of society is to encourage those pseudo-scientists to claim, and the general public to admit, that they, who deal with the application of knowledge, are the true men of science, and that the theoreticians are little better than idlers. (ibid.)

Thus we see that Peirce is ultimately concerned with protecting pure science, and avoiding its popular corruption with goals that are almost certainly going to interfere with its pursuit.

Science needs to be able to attract able men, as well as examine potentially ugly truths. The goal of social stability of course interferes with this latter function. If social stability is the goal, beliefs that appear to interfere with the status quo will be considered off-limits. In his review of Pearson, Peirce explains:

We are told that we must not believe a certain purely theoretical proposition because it is “anti-social” to do so, and because to do so “is opposed to the interests of society.” (ibid., p. 61)

Truth can very well be against the interests of society:

Truth is truth, whether it is opposed to the interests of society to admit it or not,—and that the notion that we must deny what . . . is not conducive to the stability of British society to affirm is the mainspring of the mendacity and hypocrisy which Englishmen so commonly regard as virtues. (ibid., p. 61)

Peirce identifies himself as belonging “to that class of scallawags who purpose, with God’s help, to look the truth in the face, whether doing so be conducive to the interests of society or not” (ibid.).

Peirce's arguments here reviewed point to the needs of philosophy: the political goal of social stability will interfere with the dispassionate search for the truth. In turn, however, Peirce also applies his intellectual understanding—his fallibilism—to considerations regarding the practical realm. He points out that it is not so obvious or clear what is in fact in the best interest of society. Being able to think clearly and critically, moreover, can only help in determining such a difficult thing:

If I should ever attack that excessively difficult problem, “What is for the true interest of society?” I should feel that I stood in need of a great deal of help from the science of legitimate inference. (1901a/1998, p. 61)

In other words, what is best in any given situation—what is in the public interest—cannot be derived from any orthodox doctrine or established formulas. It requires a flexible and well-trained mind to understand what is best in a given situation. Peirce apparently expects that good intellectual training will train the same faculties that are needed in practical judgments even if the methods of practical decision making and theoretical inquiry differ, and even if moderation reigns in one when the extreme reigns in the other. In addition to applying fallibilism—a humility in what we can say we know—to practical matters, this position also bespeaks Peirce's views on evolution and the necessity of change and growth, as well as his limited practical application of pragmatism, as discussed above.

As we have seen in both the first Cambridge Conferences lecture and Peirce's excerpted lecture in the Johns Hopkins Circular, rote knowledge, or rules of thumb, are important in everyday acting—in acting in circumstances you have come across before. But when it comes to new situations that we have not experienced, a nimble, deciphering,

discriminating, searching, creative intelligence will be of important help for understanding the new situation at hand, as is approaching it with both humility and mental flexibility. Peirce's position thus seems to be that the best education will aim to produce leaders who can use their brains—who can think critically—in order to appropriately guide the country in the uncertain future, where old truths might not be helpful. As with applying the methods of one field to that of another, a versatile mind will have the capabilities and judgment to also know when and how to adapt old truths to new circumstances. Ellery Davis, a University of Nebraska professor who was Peirce's student at Hopkins, writes that in fact a main virtue of Peirce's pragmatism is to help one distinguish between that knowledge one knows from experience, and understandings we have that are not based on experience (Davis 1914, p. 49–50); this distinction allows for the apt application of the knowledge we do have, as well as awareness of what we do not understand. Let us also not forget that on top of the intellectual virtues developed through such a training, political leaders and active men need raised sights—they can not be primarily concerned with their own well-being, or with ends of mere utility—and will benefit morally from being around true scientists.

Thus we see why Peirce was not interested in an educational system that would try to pound into its students' heads certain eternal moral or political truths: not only would doing so harm pure science, but it would also interfere with the cultivation of the intelligence needed for assessing and responding to the problems of the practical realm. Below we will ask whether there is room in Peirce's thoughts on education for a civic component. I argue there is, in at least three respects. Before we address that point,

however, let us examine John Dewey's views on civic education as an example of what Peirce was concerned about.

b. Dewey's Alternative

John Dewey, Peirce's student at Johns Hopkins, does not recognize Peirce's distinction of a university's two sets of students, each with its own goals and virtues.⁹⁹ Indeed, Dewey conflates Peirce's two goals and advocates employing the scientific method to the practical realm—not in the pursuit of pure knowledge, and without the prudence appropriate to the recognition of the limits of science or the difference between theoretical and practical needs. Dewey's writings on the education fit for a democratic society interweave Peircean ideas with a progressive agenda that seeks the tools of science solely for the utility of society—what, in other words, Peirce warned against.

⁹⁹ In the scholarship there is generally thought to be much similarity in the two thinkers' views on education: Liszka (2013) remarks on the similarity between Peirce and Dewey on the importance of active learning. D. Anderson (2005) argues that Peirce "believed in a multiplicity of learning styles and anticipated John Dewey's claim in *Democracy and Education* that because of their diversity, students need to be dealt with, so far as possible, individually" (p. 279). He also sees in Peirce the "Deweyan . . . belief that teaching and learning are melioristic. That is, they improve the student, putting her or him in a better position to act successfully in the world" (p. 280).

With regard to their views more broadly, there is greater acknowledgment of the difference in their thought: D. Anderson (1997) explains that while Peirce and Dewey share a "common belief: that philosophy-science, whatever its aim, needs to be relatively free from traditional forms of authority in order to carry out its work," Dewey "seems to argue for a wider freedom" than does Peirce; he demands a "thorough-going experimentalism" in practical matters that Peirce reserves only for the theoretician (D. Anderson 1997, p. 229-230). Putnam (1992) similarly remarks on the disagreement between Peirce and Dewey on this matter, with Peirce calling for a wide distance between theory and practice, and Dewey maintaining that "science is and ought to be a guide to practice" (p. 57). Dewey (and James) moreover, does not hold with Peirce that there is any "such thing as Nature's own language; we make languages, guided by our interests, ideals, and by the particular 'problematic situations' . . . that we find ourselves in. . . . Neither [Dewey nor James] supposed that *that to which inquiry would converge* is independent of *us*, of what interests and ideals we have, and what questions those interests and ideals lead us to formulate" (p. 73).

Examining Dewey's thought on the education fit for a modern democracy sheds light on the virtues of Peirce's recommendations.

As we saw in the introduction to this dissertation, Dewey likes democracy because it is a tool for "social engineering" (1944a/1958 p. 33) and "social control" (1938/1958 p. 35). Democracy applies the scientific method to the practical and social realm; it is the political institution whose methods most resemble those of scientific inquiry. The exchange of viewpoints that takes place in a democratic system acts as a dialectic that parallels the empirical experimentation and testing of science (1944b/1958 p. 157). Because its decision making process consists of weighing all its citizens' wants and needs, democracy yields the best solution to a problem, and thus ultimately serves the "dignity and the worth of the individual" (1938/1958 p. 44).

It is the input of citizens' opinions wherein the link between democracy and education lies. A citizenry needs to be sufficiently educated to know what it is that it—as individuals—wants (*ibid.*, p. 35). There is in fact a reciprocal relationship between democracy and education: political campaigns serve the purpose of informing the citizenry (*ibid.*, p. 34) and education serves the function of empowering the citizenry with "knowledge and understanding" that aids its political functioning (*ibid.*, p. 37).

Like philosophy, the educational system also has the task of breaking down the separation of theory and practice. The humanization of science requires that technical and vocational education be supplemented with a scientific education, such that "all who go to school" are made "aware of the scientific basis of industrial processes" (1944b/1958 p. 146). Separating such educations "is the sure way to perpetuate the confusion and conflicts of the world in which we now live" (*ibid.*). "The great advance in industry" and

the “marvelous advance in natural science” of modernity are due to this barrier’s being broken down (ibid., p. 154).

Educational theory or philosophy has the task and the opportunity of helping to break down the philosophy of fixation that bolsters external authority in opposition to free cooperation. (ibid., p. 159)

Educational institutions must work against the notion that morals ought to be separate from “science and the scientific method” (ibid.). Similarly, it must work to “banish the conception” that there is anything superior in intellectual pursuits and inferior in “the daily work and vocation of man”; or that “human dignity here and now is of slight importance in comparison with some supernatural destiny” (ibid.). Finally, the educational system must accept and promote the “scientific way . . . of life” so that the “promise of modern democratic ideals” can be achieved (ibid.).

Dewey criticizes those like Ralph Maynard Hutchins who attempt to put *belles lettres* at the heart of the liberal education (ibid., p. 149). Doing so

ignores and in effect denies the principle of experimental inquiry and firsthand observation that is the lifeblood of the entire advance made in the sciences—an advance so marvelous that the progress in knowledge made in uncounted previous millennia is almost nothing in comparison. (ibid., p. 149–150)

It assumes “fixed and immutable” moral beliefs (ibid., p. 150). Such a view is held precisely because persons with a predominantly literary education have not been impacted by the scientific method (ibid., p. 151).

The issue of the immutable versus the changing involves the question of whether the method of inquiry and test that has wrought marvels in one field is to be applied so as to extend and advance our knowledge in moral and social matters. (ibid., p. 156)

Dewey here, in other words, voices the precise opposition to gaining insight from texts that we attributed to “laboratory-men” and “experimentalist type[s]” above. He argues that the “principles and general truths in morals” ought instead to be considered as scientific propositions, as

working hypotheses that on one hand condense the results of continued prior experience and inquiry, and on the other hand direct further fruitful inquiry whose conclusions in turn test and develop for further use the working principles used. (ibid.)

Such is the only way the matter can be dealt with with “intelligent observation guided by the best wisdom already in our possession, which is the heart of the scientific method” (ibid.). It is dogmatic, Dewey explains, to think about morality is any other way (ibid.).

In contrast to Peirce, who does not explicitly include civic content in his curricular recommendations, Dewey suggests a way in which a civic education can be included: “We should take . . . seriously the preparation of the members of our society for the duties and responsibilities of democracy” (1938/1958, p. 37). He thinks this can be done by using “democratic methods in the schools” and educating “the young and the youth of the country in freedom of participation in a free society” (ibid., p. 38). Our schools ought to be “more completely the agents for preparation of free individuals for intelligent participation in a free society” (ibid., p. 38).

Dewey recognizes what Peirce understood, that change and growth are inevitable: Every generation has to accomplish democracy over again for itself; . . . its very nature, its essence, is something that cannot be handed on from one person or one generation to another, but has to be worked out in terms of needs, problems and

conditions of the social life of which . . . we are a part, a social life that is changing with extreme rapidity from year to year. (ibid., p. 39–40)

Because of this change, “the problem of maintaining a democracy becomes new” (ibid., p. 40). What it means to be American can be “transmitted as an emotion and as an idea from generation to generation” only if its tradition is “embodied by active effort in the social relations which we as human beings bear to each other under present conditions” (ibid., p. 40). The school must thus educate not only regarding the ideas of the founders, but with regard to what democracy means today “under existing conditions” (ibid.). Schools ought to teach racial toleration, and not simply in a passive manner; rather it ought to “positively and aggressively and constructively . . . cultivate understanding and goodwill which are essential to democratic society” (ibid., p. 42). They must also work to diminish class snobbishness (ibid., p. 43–44).

Dewey’s position thus seems to be that a democracy requires educating citizens to be inclined to democracy and, what is connected, social equality. Democracy is good in turn because it reflects the desires of its citizens. In this way, the method and desirability of democracy is predetermined by the philosopher, and is therefore outside of the democratic system itself. Social engineering is thus at the heart of the democratic political order, with the ultimate aim of having men live together peacefully.

c. Evaluating Dewey’s Alternative

Like Peirce, Dewey points out the discrepancy between our ideals and reality:

We have in many schools a wonderful school pledge where the children six years old and up probably arise and pledge allegiance to a flag and to what that stands

for—one indivisible nation, justice and liberty. How far are we permitting a symbol to become a substitute for the reality? (ibid., p. 43)

Allegiance and loyalty are not instilled through the simple recitation of a pledge. Practice means more than words.

What are we doing to translate those great ideas of liberty and justice out of a formal ceremonial ritual into the realities of the understanding, the insight and the genuine loyalty of the boys and girls in our schools? (ibid., p. 43)

Dewey, like Peirce, thus thinks that the best way to teach is through experience; that conditions will always be in flux and will require increasingly new solutions; and that we should recognize the discrepancy between our ideals and practice—an observation of a characteristically pragmatic nature.

Dewey is not quite as humble as Peirce when it comes to knowledge, however. Peirce's recognition of man's fallibility resulted in his recommendation that a liberal arts education ought to focus on cultivating the art of thinking in students so that nothing would be considered orthodox and minds would be trained to be versatile and think rigorously. Dewey, less interested in pursuing knowledge but more interested in democracy, wants instead to train individuals to be good liberal democrats, to get beyond racism and classism. Indeed, for Dewey, the good of society trumps the goal of understanding, as Peirce predicted would be the case if theory and practice were to not be adequately separated.

From a political point of view, Dewey's suggestions are attractive; from a philosophical point of view, they will interfere with the majority of men reaching truth. But, given that Peirce does not think that the majority can obtain true knowledge anyway,

perhaps there is no Peircean objection to Dewey on this front—so long as there also exist small enclaves of true liberal arts institutions where genuine learning can take place. However, whether Dewey’s socially engineered democracy could in practice make room for truly open institutions of higher learning is at best a question. The concern that it could not is supported by both theory—the concerns Peirce raised above—and the history of societies that aim at social engineering. This observation supports Peirce’s fears regarding the threats political doctrine poses to true science; though simply recognizing the tension between philosophy and politics does not answer the question as to which end ought to be viewed as superior from the political point of view. A political community could understandably choose a policy that benefits it over the intellectual pursuit of truth. We will return to this point.

A more dramatic difference between Dewey and Peirce concerns their views on the proper relationship between theory and practice. Peirce’s fallibilism leads him to call for the separation of theory and practice, for the sake of each; similarly, he recognizes the importance of tradition and received wisdom in the practical realm, and calls for proceeding in that realm only with the utmost caution. Dewey, as we see, turns this on its head: he wants theory to instead serve practice, and thinks looking to the received wisdom of the past can only be understood as dogmatic. He thinks the social science methods should be looked to for guidance—that is where wisdom lies—and that these methods and the desires of citizens should reciprocally inform one another. At least in the elements of his thought reviewed here, Dewey does not appear exhibit the humility Peirce thinks is proper of a true scientist.

V. A Peircean Civic Education

Peirce does not include civic content in his curricular recommendations. His writings nonetheless point to three main conclusions concerning civic education: (1) Primary and secondary education should instill in students the ideals of a nation. (2) A proper civic education at the university level consists of critically examining a nation's institutions. (3) A proper liberal arts education will also explain the limits of applying reason in the practical realm, which points to the important place of traditional morality and prudence in the practical realm.

(1) Peirce explains that the education received in childhood helps shape our sentiment (1885b/1992, p. 237–238; 1903a, CP 1.591–1.592). Peirce, then, ought to agree with Dewey that the young ought to receive a civic education that inculcates in them the ideals of the nation. A Peircean civic education at the primary and secondary levels would aim to shape the morals, tastes, and dispositions of the country's citizens. This education would not, however, follow Dewey's suggestions of applying the scientific method to the social realm and rejecting an education in *belles lettres*. It would instead be interested in promoting respect for tradition and received wisdom. This would entail promoting those things America finds best about itself: ideals like the equality of its citizens, noted by Dewey above, or the separation of its branches of government, to which Peirce brought our attention. For, only once these lessons are absorbed can they be critically examined (see, e.g., 1905b/1998, p. 349–350). As to how to identify which features America finds best about itself: for that it would be wise to look to our founding documents—like the Declaration of Independence—and our greatest statesmen—men

like Abraham Lincoln—who, through their words and deeds, have helped shape America’s understanding of itself.

(2) While Peirce does not explicitly include a civic component to his university curricular recommendations, I would like to argue that his brief remarks on the subject—that it is better to train students in the art of thinking than to ensure the “assent of all the citizens to any definite propositions,” especially if practice belies those propositions (1898/1992, lecture 5, p. 181)—indeed are a civic education: It is important is to analyze and criticize our institutions. Similarly, it is not helpful to treat propositions as sacred, incapable of being criticized. Only with full criticism and analysis can our institutions be understood or improved upon. Civic education and intellectual openness walk a fine balance; suggesting a more robust education would likely interfere with both intellectual and civic ends, as we see in the example of Dewey’s thought.

A university education aimed at grooming statesmen and men of action to lead a nation, then, ought to include exercises in the critical examination of the nation’s ideals as well as governing principles. Peirce has explained that our ideals are open to revision and modification based on our reasonable reflections and our experiences in the world (1903a, CP 1.591–1.592; 1905b/1998, p. 349–350). Education at the university level would be the proper place for the moral sentiments and principles of government inculcated in youth to be critically examined. As we saw, when reasonable doubt sets in, a sentiment—or culturally ingrained norm—is open to the review of reason (1905b/1998, p. 350).

Strengthening reason’s ability to navigate between old truths and the needs of new situations that arise is then, presumably, a main reason Peirce recommends that men of

action receive a liberal arts education. Peirce's logical tools and philosophical understanding have a limited but important role to play in this regard. While Peirce's logical maxim¹⁰⁰ aims at understanding, simply, he did quietly point out to us how it might be invoked in the practical realm when he noted that the ideal of the separation of the branches of government is belied by practice. Thus, recognizing the difference between an ideal or how something purports to be, and how it really is, is one practical consequence of a training in logic. In addition, it seems appropriate to conclude from Peirce's recommendations that he would understand other tools of scientific observation to similarly be useful to the man of action. For example, scientific tools of observation and analysis—tools like econometrics and statistics—can help isolate consequences of public policies, and thus provide useful information to the statesman in their decision making.

(3) These logical tools must be applied with appropriate humility and prudence, however. Understanding how this is to be done is the complicated thing, of course. A theoretical education can aid the development of prudence by making clear the theoretical reasons why the conclusions of science must be applied cautiously and with humility, and why traditional morality ought in many circumstances to trump scientific conclusions. For one thing, a proper education in science and philosophy will make clear the limitations of science—the fallibility of any particular theory—and the fact that the whole enterprise rests on regulative hopes (1898/1992, lecture 4, p. 176–177; 1869/1992, p. 82).

¹⁰⁰ “Consider what effects, which might conceivably have practical bearings, we conceive the object of our conception to have. Then, our conception of these effects is the whole of our conception of the object.” (1878/1992, p. 132)

It will also acknowledge the rigidity of instinct and human nature—recognize, in other words, the limits to which man can be shaped (see, e.g., 1905b/1998, p. 349–350).

Finally, it will recognize, as Peirce does, that instinct, moral sentiment, and cultural norms summarize lessons gleaned from man’s experiences over time (1898, lecture 1, p. 111).

Sentiments and norms must be critically examined before they can be discarded or changed, as Peirce explains; this means that one must attempt to understand their virtues and the possible reasons for their development before one can deem them no longer wise or necessary.¹⁰¹ Fully appreciating tradition requires that it be examined from different angles. Reading texts that both embody and raise questions about such matters aids this examination; this suggestion indeed works nicely with Peirce’s recommendation for extensive reading (1898, lecture 5, p. 192). Works of political theory, literature, religion, and history¹⁰² are among those that can help shed light on matters of practical decision making. They can provide insight into the human condition and the extent and limits of human nature’s malleability. They can moreover provide insight into the principles by which our political system operates, and the understanding of justice on which it rests.

The American statesman who is grappling with how to deal with the discrepancy between

¹⁰¹ C. Anderson (1990) includes a similar suggestion as part of his recommendation for a “political education that would be compatible with the basic presuppositions of pragmatic liberalism”: “Thorough understanding of the rationale of prevailing practice is the precondition for critical analysis. Granted, the fashionable pedagogy today is to encourage criticism before students have mastered the case for existing institutions and techniques, ideas and procedures. But that is putting the cart before the horse. . . . It is essential to understand why something was put there in the first place before one tries to change it or tear it down.” (p. 196–197)

¹⁰² In a 1901 essay, Peirce in fact endorses studying history because it can help broaden one’s understanding: “One of the main purposes of studying history ought to be to free us from the tyranny of our preconceived notions” (1901e, CP 7.227).

our constitutional principle of the separation of the branches of government and the way politics is in fact practiced, for example, will benefit from understanding the arguments behind the separation of powers as explained in the *Federalist*; this understanding would inform, though not determine, his response.

VI. Concluding Thoughts

Peirce understands a man of action to benefit from a liberal arts education that teaches logic and aims at strengthening his powers of reasoning. To act wisely, the man of action must approach situations with prudence—a virtue in the practical realm, though not in the theoretical realm. Extremism is a virtue in the intellectual realm, but reason taken to the extreme would be disastrous in the practical realm. Peirce has provided us with clues as to how and when reason ought to intervene in the practical realm.

Fallibilism, or a modest skepticism, and the inevitability of change are at the heart of Peirce's education recommendations. In both the practical and political realms, truth or right judgment is not easily known. Both pure inquiry and practical decision making benefit from agile, discriminating, open minds. The scientist can never be certain that a proposition will forever remain unturned, though logical tools and the scientific method can help him approach truth. The man of action can similarly not be certain of the best judgment in any given situation, and must rely on a combination of lessons learned from experience, ideals instilled in him in his youth, and his reasonable reflections. This is why Peirce would agree with Dewey that a nation's ideals ought to be instilled in the young; but, at the level of the university, these ideals, along with a nation's institutions, must be critically examined. At the least, the experience of critiquing received wisdom will train

the mind's powers—strengthen its art of reasoning—aiding it in future practical decision making. It is thus for both intellectual and practical reasons that Peirce is against promoting any particular doctrine at the level of the university. On this point Peirce and Dewey diverge significantly.

Finally, as we conclude, let us also recall that Peirce's primary interest was in the noble pursuit of truth for its own sake. We saw in this chapter that Peirce thought it an important moral lesson for general students to observe a true man of science, who was attached to a noble goal that was completely detached from a concern for utility and any self-serving ends. As I have argued throughout this dissertation, moreover, a main purpose of Peirce's entire philosophic project is to provide a framework that would ensure the intelligibility of the scientific project while motivating students to embark on it. For that is the job of philosophy:

In every age, it can only be the philosophy of that age, such as it maybe, which can animate the special sciences to any work that shall really carry forward the human mind to some new and valuable truth. Because the valuable truth is not the detached one, but the one that goes toward enlarging the system of what is already known. (1898, lecture 4, p. 171)

This required first and foremost providing an intelligible notion of truth that would make sense in a post-Kantian world. It meant rescuing philosophy and science from an extreme skepticism that seemed to have forgotten its original goal of striving toward universal agreement. Understanding the importance of this noble activity—the pursuit of truth—ought to be the starting place of students of Peirce who are interested in understanding what, if any, practical application his thought might warrant.

CONCLUSION

My dissertation has explored Charles S. Peirce's epistemological and political thought. The first three chapters examined Peirce's pragmatism and related features of his thought: his Critical Common-Sensism, Scholastic Realism, semeiotics, and a part of his metaphysical or cosmological musings. The fourth chapter explored Peirce's warning that theory and practice ought to be kept separate, for the sake of each. The fifth chapter aimed to shed light on the claims of the fourth by exploring the liberal arts education Peirce recommends for educating future statesmen.

This dissertation makes clear that Peirce was not a crude utilitarian or simply concerned with "what works." He was, moreover, not anti-metaphysical. This dissertation is ultimately sympathetic to the position of those who separate Peirce from the other pragmatists—though those who do so do so dismissively. In fact, Peirce has much to instruct contemporary thinkers. His is an anti-skeptical but modest theory of reality that is still potentially attractive to contemporary readers. His message of caution in the practical realm is sound. Finally, his call for what a university ought to be and the liberal arts education that will best groom students for the active life is still fitting.

I. Overview of Pragmatism and Related Doctrines

Pragmatism is a logical doctrine. It is not intended to reveal all truth about existence, but rather the intellectual—objective, what is verifiable and accessible to all—content of a matter. Peirce initially framed its maxim as

Consider what effects, which might conceivably have practical bearings, we conceive the object of our conception to have. Then, our conception of these effects is the whole of our conception of the object. (1878/1992, p. 132)

If a body is “hard,” it “will not be scratched by many other substances” (1878/1992, p. 132). “Weight” means that “in the absence of opposing force,” a body “will fall” (ibid., p. 133). “Force” enables us to “account for changes of motion”: “without the intervention of forces, every motion would continue unchanged both in velocity and in direction” (ibid.).

Peirce ultimately clarifies that it is not the “conception of these effects” but the habits of action themselves that are the ideal logical interpretant of a concept. “Acceleration” ought to be understood as the “habit of the person who predicates an acceleration” (1907/1998, p. 433). This shift is connected to pragmatism’s re-grounding—from one based on assertions about the essence of the psychological states of belief and doubt, to one based on Peirce’s semeiotic theory of mind. By identifying the intellectual meaning of a concept, pragmatism aids modern science in its journey of uncovering reality—knowledge to which all inquirers would assent, and which future experience will not bring into doubt.

Connected to pragmatism are the doctrines of Scholastic Realism and Critical Common-Sensism. Peirce’s realism recognizes the existence of law and generals, and of the existence of both the potential and the actual. Critical Common-Sensism holds that we must start inquiry from the point of view of common-sense and that we ought not to doubt what we do not in truth doubt; however, it is not a doctrine that is simply satisfied with the common-sense understanding, but rather welcomes doubt—attempts to devise

ways to doubt—so as to better refine understanding. Both point to the reality of the world as we experience it.

Similarly intimately connected to pragmatism is the modestly skeptical doctrine of fallibilism. Fallibilism holds that while truth—knowledge of reality—is available, we can not be certain at any particular time that we have hold of reality. Claims of knowledge must be modest. Knowledge is possible, but mistakes at any given point are as well.

II. The Nature of Peirce's Realism and the Anti-Skeptical Motivation behind Peirce's Philosophical Project

My thesis throughout this dissertation has been that Peirce's main motivation behind his philosophical project was to articulate a theory of reality in a post-Kantian, skeptical age—an age that “believe[d] in nothing” (1871, EP1 p. 86)—to motivate inquirers to inquiry. In the face of the Kantian position that there exists a true reality to which we do not have access, Peirce proposed an anti-skeptical theory of reality. The real is what exists independently of any particular human mind—though not of thought in general—and constrains the understanding. Pragmatism and the scientific method aid in homing in on this reality.

The reason for Peirce's anti-skeptical project was to motivate inquiry. It is the job of philosophy to motivate the sciences to further knowledge (1898/1992, lecture 4, p. 171). In past ages, the belief in God motivated impressive feats (1871/1992, p. 86). Peirce attempts to put forward an understanding of reality that will similarly motivate scholars to great accomplishment. His assertion of the ultimate agreement of investigators is justified because rational inquiry requires it. Toward the end of his life Peirce even enlists

God in his project: he couches his argument in religious terms, hypothesizing a philosophical God—the existence of Nature, I argue—that aims to motivate scholars to pursue knowledge.

a. Peirce's Theory of Reality: An Analysis

Truth—the reality that is ultimately knowable¹⁰³—is what would be agreed to at the end of inquiry by qualified inquirers, should inquiry be “pushed to its ultimate and indefeasible issue” (1908a/1998, p. 450). For something to be considered truth, it must be available to other inquirers—it can not be held privately (1871/1992, p. 88–89). It must be communicable to and understandable by other minds. But what is true will remain true regardless of whether it is uncovered: “The real is that which is such as it is regardless of how it is, at any time, thought to be” (1905b/1998, p. 356). A true understanding might indeed never be reached—the world might be destroyed beforehand, for example (1869/1992, p. 82).

Truth can not be determined based on the opinions of any particular community at any particular time. The “community” that is the “ultimate” standard of reality, for Peirce, is the “*community* of philosophers,” not of all minds simply (1869b/1992, p. 54, 29). Peirce does not expect universal enlightenment: he explains that the “mass of mankind” is destined to “remain intellectual slaves” (1877/1992, p. 118). With social pressure being as great as it is, the method of authority will always govern the many (ibid.). It is most likely that the community of philosophers will be disconnected by both

¹⁰³ While commenters have argued that “truth” and “reality” are no longer synonymous for Peirce after 1880 (see, e.g., Hookway 2004), I do not think the distinction is relevant to this dissertation.

time and place; the thinkers Peirce holds up as independently arriving at similar conclusions—as independently uncovering the same eternal forms—is an instructive example (1898/1998, lecture 1, p. 120–121). Peirce’s theory of truth is not, in other words, democratic or relativistic.¹⁰⁴

Has Peirce’s theory of truth and knowledge provided an answer to Kantian skepticism, however? Careful consideration of Peirce’s theory of reality reveals its inherent circular reasoning: We can know reality because reality is what we can know. Peirce moreover understands reality to be mind-dependent.¹⁰⁵ Understanding reality to be synthesized by the mind, Peirce’s realism shares similarities with Kant’s epistemology, despite his claim that his “theory of reality is instantly fatal to the idea of a thing in itself,—a thing existing independent of all relation to the mind’s conception of it” (1871/1992, p. 90). Peirce even acknowledges his theory of reality involves a phenomenalism that is akin to Kant’s (ibid.).

Peirce indeed appears to have simply reframed Kant’s epistemology. The *noumena* is no longer an unknowable thing-in-itself, but rather that which is ultimately understood and agreed to at the end of inquiry (ibid.). Redefining “*noumena*” as that which is ultimately understood is fitting for a term with roots in the Greek “*nous*.”

¹⁰⁴ This presentation of Peirce’s theory of truth and the community of inquirers challenges the appropriation of Peirce’s thought by democratic theorists who understand Peirce’s philosophic community to include everyone and universal enlightenment to be both possible and desirable, as discussed in the Introduction (e.g., Misak 2000, Talisse 2005, Talisse 2012).

¹⁰⁵ Because knowledge of reality must consist in ideas, many commenters regard Peirce’s realism to be an “objective idealism” (Boler 2004; Smith 1978). Boler (2004) explains it thus: “If knowledge is possible, the real as the object of knowledge must be idea-like” (p. 76).

But if Peirce's realism is simply a reframing of Kant's epistemology, how is it an antidote to extreme skepticism, the position that knowledge of reality is impossible? Peirce answers Kantian skepticism with the following points: (1) We can not mean anything that we have no experience of—there is no reality beyond the reality to which we have access (1868a/1992, p. 24). To speak of something of which we have no experience and therefore no knowledge is nonsense. (2) Reality is mind-dependent but is not constructed by the mind. There is something external to the mind that constrains understanding. "We find our opinions constrained; there is something, therefore, which influences our thoughts, and is not created by them" (1871/1992, p. 88). Pragmatism aims to uncover the mind's understanding of this external, constraining reality. While the mind plays a role in the ultimate understanding, it can not decide what that understanding will be.

b. The Role of Peirce's Metaphysics: Beauty and Religious Awe in Peirce's Philosophy

Peirce's hypothesis for the existence of God accounts for how knowledge of external things—how the ultimate agreement of all sufficiently inquiring minds—is possible. "Man's mind must have been attuned to the truth of things in order to discover what he has discovered. It is the bedrock of logical truth" (1908/1998, p. 444). Peirce presents a philosophical God: an unembodied God of necessary character, this God is the creator of the three universes of experience—that of pure ideas, the external world, and the connection between signs, in other words, our knowledge of the external world (ibid., p. 447, 434–435). With this God's philosophical nature, Peirce's metaphysical

musings are, I have argued, a religiously flavored way of speaking of the hypothesis of nature's existence.

Peirce has not entirely answered Kant's skepticism. Peirce argues that it does not make sense to speak of a reality that is beyond cognition, and our opinions are constrained by something external to our minds. These are compelling points, consistent with how we experience the world. In our daily existence, we gather that we do know some things—for example, that fire will burn flesh—and, moreover, that we have no control over these things. But Peirce also acknowledges that our knowledge of the external world is mediated by the mind. We have no access to the external world as unmediated by the mind. Peirce is then in the position wherein he must persuade others that the knowledge available to humans—this mediated reality—is worth pursuing.

To do this, Peirce seeks to instill religious awe in his readers.¹⁰⁶ In past ages, belief in God inspired the accomplishment of great things. Both “scholastic commentar[ies]” and “Gothic cathedral[s]” bespeak a “truly heroic” “religious devotion” (1871/1992, p. 86). Peirce understood those of his day, in contrast, to “believe in nothing” (ibid.). I have argued that Peirce seeks to replace this belief in nothing with a belief in something noble, to inspire the pursuit of knowledge. The hypothesis of the existence of a philosophical God—Nature—is intended to be “full of nutrition for man's highest growth,” to supply

¹⁰⁶ This is an original suggestion, as far as I can tell. It makes sense of aspects of Peirce's writings that are overlooked in the scholarship. Hookway (1985) explains that many commentators do not take Peirce's metaphysics seriously, or do not understand his metaphysics to be consistent with his philosophical thought (p. 263). Hookway takes Peirce's metaphysical and cosmological thought seriously and understands it to work in conjunction with his logic; however, Hookway is interested simply in evaluating the internal coherence and ultimate persuasiveness of Peirce's system. I have not seen others note Peirce's efforts to inspire religious awe or scientific Eros; or connect these efforts to his metaphysical musings or overall philosophical project.

“an ideal of life” (1908/1998, p. 435, 439). “Every heart will be ravished by the beauty and adorability of the Idea” of the reality of God (ibid., p. 446). “Nature is something great, and beautiful, and sacred, and eternal, and real”; it is the “object” of science’s “worship” (1898/1998, lecture 4, p. 177). True ideas make up the “dignity of man” (1878/1992, p. 140).

Uncovering knowledge requires religious devotion—the investigator’s “whole heart and soul” (ibid., p. 113). Galileo was a “truly inspired prophet” (1908/1998, p. 444). A concern for utility will only obfuscate the search; “practical utilities . . . should be **put out of sight**” (1898/1998, lecture 1, p. 113). Like Kant’s good will, the pursuit of reason is a good that might interfere with our well-being—it might “[cost] us dear” (1897/1992, p. 123), but such is the case with all that we “cherish” (ibid.). The noble nature of truth justifies these costs. Peirce praises the intellectual virtue—especially courage—required for this feat (ibid.). In contrast, those who are satisfied with the opinions of the community are cowardly for choosing peace over truth (ibid., p. 116). Peirce’s presentation of the beauty of Nature and the noble activity of philosophy aim at inspiring the philosophic Eros that pure science and philosophic pursuit require (1898/1998, lecture 1, p. 107).

III. Practical Consequences of Peirce’s Thought

Peirce explains that theory and practice must be kept separate. This is for the sake of each: a concern with practical utility will interfere with the pursuit of truth; pure scientific propositions are, moreover, tentative, and not fit for application in the practical realm. Instinct and tradition are sounder guides than is reason in practical decision

making—they reflect the wisdom of experience—and ought to reign supreme in the practical realm.

However, in the same lecture series, Peirce also argues that the “good of the country” and the “welfare of the commonwealth” require that universities train students to be able to think for themselves, and warns against simply teaching them received wisdom. Thus we appear to have this tension: If tradition ought to reign supreme in practical decision making, why not simply teach men of action traditional wisdom? To what end does training in logic and strengthening the mental powers serve the practical life, given Peirce’s admonition against mixing theory and practice?

To understand Peirce’s answer to these questions, I first explore in detail his curricular recommendations. I then suggest that there are two important insights regarding practical matters that are behind Peirce’s recommendations, which should be understood as amendments to his admonition that theory and practice be kept entirely separate.

a. Curricular Recommendations

Peirce calls for returning to the traditional liberal arts education: to an education at whose center is the trivium—the study of grammar, logic, and rhetoric—and that is focused on training students’ intellectual powers. The aim of this education is to teach students to think for themselves. To foster a flexible mind that can see beyond pre-established notions, Peirce suggests exercises that strengthen the mind in different but complementary ways. He recognizes it is important to see matters from different angles and to have an open mind that is not hampered by pre-established notions.

Peirce includes extensive reading in his curricular recommendations; this is striking in today's context, in which "laboratory-men" and "experimentalist type[s]"—as he describes himself—are at best indifferent to and at worst disdainful of philosophy broadly understood. Dewey, for one, exhibits this disdain. It is similarly noteworthy that Peirce thinks important insight can be found in the nonscientific texts of great "literary artists" with impressive "power[s] of discrimination" regarding men's characters and psychology. Resounding throughout Peirce's curricular recommendations is the theme of anti-dogmatism. Learning requires being aware of one's own ignorance.

b. The Art of Thinking and the Active Life

Why is critical thinking needed for the active life? Why not simply teach traditional wisdom and morality? A close reading of various texts reveals two important insights into practical matters that I argue are behind Peirce's education recommendations. (1) The first is that change is inevitable—new situations arise, for which old traditions can not simply be relied on. Peirce understands chance and variation to be inherent to the world. It is this which drives evolution. In recognizing that change at the social level is inevitable, Peirce is in agreement with Dewey. Unlike Dewey, however, Peirce does not think this means that all inherited wisdom ought to simply be discarded and replaced by scientific experiment. Rather, what is needed is honed practical judgment—judgment that is capable of recognizing what a given situation requires.

While instinct, tradition, and our own practical knowledge are sufficient in familiar circumstances, the minds of practical men need to be trained to adapt old lessons to new situations. It is often not obvious or clear what is in the best interest of society. One must

be able to think clearly and critically in order to determine what new circumstances require. This cannot be simply derived from an orthodox doctrine or established formula. A flexible and well-trained mind is needed to understand what is required in a given situation. The best education will aim to produce leaders who can use their brains—who can think critically—in order to appropriately guide the country in the uncertain future, where old truths might not be helpful.

(2) Peirce's second insight is that tradition is fallible. While this is not a unique insight by itself, what is remarkable—what sets Peirce apart from the other pragmatists—is his response to this recognition. Peirce acknowledges that traditions like that of *suttee* raise doubts regarding the soundness of the conservatism he has expounded. His explicit teaching in his 1898 talk is that adherence to tradition and sentiment is nonetheless the most prudent plan of action. This conservative advice is not Peirce's final word on the matter, however. At the end of this lecture, he explains that reason can influence instincts, but only slowly and indirectly. I suggest another benefit Peirce understands a proper liberal arts education will have on men of action will be of enlightening their instincts such that they will be in a better position to respond to the fact that tradition is fallible—so that they will be better able to judge which traditions to abide by, and which to discard.

There are two principal ways in which this will be done: (A) The first is that by encountering genuine scholars, students' sights will be lifted. A noble environment like that of a proper institution of learning can beneficially impact students' morals, especially in a modern democracy where men's attentions are so often turned to lower things like making money. Peirce explains that one of the important lessons that a general pupil

ought to carry with him after he leaves the university is what the soul of a scholar is about. The true scientist's aspirations are noble; he is motivated by "rational ideas" and the "rationalization of things" simply. Neither wealth nor personal ambition drives him. By encountering scholars motivated by this noble goal, students' sights will be raised—they will recognize there are goals beyond mere utility and individual success. A proper university can thus offer an important antidote to the sights and goals of practical life.

(B) The second way in which a proper education will enlighten and enlarge students' instincts is through encountering the "ideal and eternal verities," which, because they are true, will bring instincts closer in line with the good. Though it does not produce simple formulas for acting, philosophy influences the instincts, slowly and indirectly, according to what is universal. Throughout his writings, Peirce hints at the overall effect he understands these truths to have: Acquaintance with knowledge of the whole reveals human beings' mutual dependence. This understanding has a liberalizing effect on the scholar's soul.

Peirce explains that his logical investigation reveals that men are highly dependent on one another for knowledge. Man as an individual is marked by his ignorance; it is only as a member of a community that he can hope to be part of the uncovering of eternal truth. Peirce similarly understands in his defense of scholastic realism and the existence of generals an argument for the existence of something higher than individual man, capable of elevating his particular existence. It is arguably Peirce's understanding of the mutual dependency of people that prompts him to frequently minimize the difference between different peoples and cultures and instead emphasize individuals' common membership in the human race.

The scholar's recognition of his dependency on other men is connected to the generosity inherent in his investigations. The true investigator recognizes that he can only play a small role in the discovery of truth. His actions aim at benefitting future inquiry and inquirers—at benefiting the development of knowledge in the long run. By exposing students who will go on to live lives of action to both genuine scholars and pure theoretical study, a proper liberal arts education has the potential to both raise men's sights and liberalize their sentiments. These are significant moral lessons, benefitting students as individuals and as citizens.

c. Peirce's Practical Conservatism

That there is this role for reason and pure science in the active realm does not obviate Peirce's message of practical conservatism. His claim that it is unwise to upend one's instincts or traditional morality based on a newly arrived-at logical proposition still holds. His warnings caution against experimentation in social arrangements and directly applying philosophical ideas to the practical realm—as advocated for by such thinkers associated with pragmatism as John Stuart Mill and John Dewey.

The recognition that tradition is flawed and ought to be approached with prudential criticism bespeaks a conservatism that is very American in nature. It does not accept tradition simply. It is distinguished from “false conservatism” like that which “looks to see on which side bread is buttered,” or which is concerned with simply maintaining the social status quo. It seeks rather what is good in the past, and to discard what is bad in it. This requires recognizing the limits of reason, the wisdom inherent in tradition, and well-honed practical judgment.

Finally, in conclusion, it is important to recall that Peirce's primary interest is in the noble pursuit of truth for its own sake. A main purpose of Peirce's philosophic project is to provide a framework that would ensure the intelligibility of the scientific project while motivating students to embark on it. For that is the job of philosophy. Understanding the importance of this noble activity—the pursuit of truth—ought to be the starting place of students of Peirce who are interested in understanding what, if any, practical application his thought might warrant.

IV. Evaluation

Peirce's forward-looking theory of reality and the nature of the knowledge that is available to the human mind is less skeptical than is that of post-modern theorists like Thomas Kuhn, who understand knowledge to be paradigm-dependent (Kuhn 1962). Peirce recognizes that our context determines the level of knowledge at any particular time (1871/1992, p. 89). But actual knowledge is that which will be purified of the particular biases of a specific time and place; his framework for knowledge, reality, and fallibilism, helps us understand and articulate how knowledge is possible though we may not have certainty about any particular knowledge at any particular point. His doctrine of modest skepticism is a more compelling guide to knowledge in a post-Kantian age than are those of extreme skepticism.

In many important respects Peirce's philosophical project is an intentional inversion of Kant. Kant employs theory in the service of morality: the *Critique of Pure Reason* shows the limitation of pure theory in order to elevate morality. Peirce, in contrast, aims to protect the pursuit of pure knowledge from morality. For Kant, human

dignity is the result of acting according to the dictates of reason, according to the moral law that one sets for oneself; this behavior entails losing sight of one's individual needs. For Peirce, human dignity is the result of "render[ing] ideas and things reasonable" (1900/1958, p. 332); this pursuit also entails losing sight of one's individuality. The pursuit of pure knowledge for Peirce takes the place of Kant's good will: it is "the only thing that is really desirable without a reason for being so" (ibid.).

Peirce merely asserts, however, that the pursuit of pure knowledge is man's highest end without attempting to prove it. He claims it is beautiful and desirable, and attempts to ignite an erotic longing or religious awe for it among his readers. He does not make an argument for it being worthy of pursuit, however.

What Peirce does do is attempt to undermine the alternative options: He attempts to undermine Kant's own undermining of pure theory by ridding his audience of the concept of a thing-in-itself behind the phenomena, and by explaining that reason is not a fit guide for morality. He moreover chimes in with a Kantian critique of the other goal of modernity: that of using reason to make life more secure—the goal of thinkers like Bacon and Locke, and the focus of Peirce's student Dewey. Peirce's response to these modern goals is three-pronged. 1. Reason is not a fit guide for morality. Reason is indeed the tool of immorality, of justifying what one knows to be bad behavior. 2. The concern with utility is a fleeting goal: this world, too, shall end. The pursuit of philosophy, in contrast, is more permanent, and thus more noble. His efforts at proving knowledge to be possible and laying out the nature of this knowledge speak to this goal. 3. Because knowledge is fallible, the proper role for reason is to play a part in uncovering knowledge in the long

run, not to attempt to improve man's condition in the short term, where instinct is a sounder guide.

Peirce does not, however, offer an argument as to why the pursuit of pure knowledge is the highest human pursuit. The nature of the knowledge available to man and the activity of inquiry itself, as Peirce has explained it, require such an argument. The pursuit of pure knowledge, we have learned, depends on the regulative hope that inquirers will reach agreement when inquiry has been exhausted. This agreement is, moreover, all that is meant by reality. The beauty of this knowledge—which amounts to the limits of what is available to the human mind—is not obvious on its face. Pure scholarship, moreover, consists of one living one's life as a cog in the wheel: the scholar does not expect to obtain this final knowledge for himself, but rather to help in its ultimate uncovering. These rewards are watered down, weaker versions of the truth about the world that ancient philosophy promised. Given this, it is understandable why many would be more attracted to Dewey's modern goal of making life more secure than Peirce's noble goal of pursuing knowledge for its own sake. While there will still be scholars who choose to devote themselves to the pursuit of pure knowledge because this goal suits their preferences, Peirce has not made a persuasive case as to why it is the worthiest of goals. Elements of Peirce's teaching can still benefit those who are attracted to the modern goal of security, however: pragmatism as a logical doctrine can help men more clearly understand their ideas, and Peirce's practical teachings about the need for prudence in the practical realm and his hope for the role of the university in a modern republic remain instructive.

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