

**Communal Inferentialism:
Charles S. Peirce's Critique of Epistemic Individualism**

by
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Author's Declaration

I hereby declare that I am the sole author of this thesis. This is a true copy of the thesis, including any required final revisions, as accepted by my examiners.

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Abstract

Charles S. Peirce's critique of epistemic individualism, the attempt to make the individual the locus of knowledge, is a dominant theme in his writings. While scholars often mention this critique, there is, surprisingly, a lack of research on the topic. However, it is necessary to know what motivates Peirce's critique of epistemic individualism to know why he aims to turn philosophy into a communal study. In this dissertation, I defend the claim that Peirce's communal inferentialism allows us to assess the rational merits of his critique of epistemic individualism and to grasp his insights into why philosophy must change its course. The questions that have guided the research are the following. What are the central reasons that support Peirce's verdict that epistemic individualism is a dead-end for philosophy? What roles do Peirce's fundamental commitments concerning the notion of the community of inquirers and the patterns of correct inference play in his critique? I defend the central claim in four chapters. In Chapter One, I reinvestigate Peirce's critique in relation to Cartesianism, while in Chapter Two I take up Peirce's case against nominalism. I begin with these topics since Peirce claims that these two positions in the history of philosophy are prime examples of epistemic individualism. In Chapter Three and Chapter Four, I show that the problem of epistemic individualism crops up again in Peirce's two most influential papers, "The Fixation of Belief" and "How to Make Our Ideas Clear." I provide a communal inferentialist reading of both papers. In this dissertation, I further show why, according to Peirce, our key epistemic notions, including *knowledge* and *truth*, cannot be individualistic but must be communal notions.

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Table of Contents

Texts and Abbreviations.....	viii
INTRODUCTION.....	1
Overview of the Chapters.....	14
1 CHAPTER ONE: Peirce’s Case against Cartesian Individualism.....	16
1.1 Two Epistemic Goals in Common.....	17
1.1.1 Prejudices and Judges.....	17
1.1.2 Reinvestigation: Descartes on Prejudices.....	19
1.1.3 Reinvestigation: Descartes on Epistemic Judges.....	23
1.1.4 Peircean Insights and Critical Evaluation.....	27
1.1.5 Descartes’ Method of Doubt: Its Three Functions.....	30
1.2 The Controversy: Did Peirce Misread Descartes?.....	31
1.2.1 Meyers’s View.....	34
1.2.2 Peirce and Descartes on Belief and Doubt.....	34
1.2.3 Meyers’s Defense.....	37
1.2.4 Assessment of Meyers’s View: Including Descartes’ on Belief.....	38
1.2.5 Haack’s View.....	40
1.2.6 Haack’s Evidence: Doubt is not Voluntary.....	42
1.2.7 Haack’s Two Interpretations of Dubitable: The Fundamental Distinction.....	43
1.2.8 Assessment of Haack’s View.....	44
1.3 Peirce’s Communal Inferentialism.....	47
1.3.1 Challenging the Cartesian view of the Mind.....	48
1.3.2 The Argument from Disagreement: Against an Intuitive Power.....	49
1.3.3 No Intuitive Self-Consciousness.....	51
1.3.4 The Communal and Inferential Process.....	52
1.4 Conclusion.....	58
2 CHAPTER TWO: Peirce’s Case against the Nominalist’s View of Knowledge.....	59
2.1 The Nominalist’s View of Knowledge: Building on Forster’s Reading.....	61
2.1.1 Sensations: Why they are Radically Private.....	66
2.1.2 The Nominalist’s Conception of Reality.....	68
2.2 Skepticism.....	73
2.3 The Nominalist’s Conception of the Mind.....	74

2.3.1	The Dilemma of Epistemic Individualism	78
2.4	Conclusion.....	79
3	CHAPTER THREE: “The Fixation of Belief”: A Communal Inferentialist Reading	81
3.1	The “Fixation”: The Aim of Inquiry	82
3.2	The Object of Reasoning	85
3.2.1	Logical Habits and Guiding Principles	87
3.2.2	Returning to Peirce on the Patterns of Correct Inference	89
3.2.3	Peirce’s Socially Rooted Logic: An Unlimited Community.....	94
3.3	Fixing Belief in the Community	95
3.3.1	Inquiry: The Struggle to Escape Doubt.....	95
3.3.2	A Central Problem: Fixing Belief in the Community	96
3.4	Short’s Reading: Peirce’s Thoroughgoing Antifoundationalism	100
3.4.1	Short on the Experiential Interpretation	102
3.4.2	Two Interpretive Difficulties: Methods and Postponement	103
3.4.3	Short’s Reading versus a Communal Inferentialist Reading	105
3.5	Conclusion.....	108
4	CHAPTER FOUR: Peirce’s View of Truth as Public.....	109
4.1	The Problem of Tenacity: Truth as Private	110
4.1.1	Truth and Inquiry	118
4.2	Peirce on Experience: The Push towards Truth as Public.....	121
4.2.1	The Struggle against Real Doubt.....	124
4.3	The Investigating Intelligence: Clarifying Truth.....	126
4.4	Conclusion.....	132
	CONCLUSION.....	133
	Bibliography.....	142

Texts and Abbreviations

Writings of Peirce:

- CP *Collected Papers of Charles Sanders Peirce*, eds. C. Hartshorne, P. Weiss (volumes 1-6), and A. Burks (volumes 7-8), (Cambridge, Mass.: Harvard University Press, 1931-58), followed by volume and paragraph number.
- EP *The Essential Peirce*, eds. N. Houser, C. Kloesel (volumes 1-2), (Bloomington, IN: Indiana University Press, 1992), followed by volume and page number.
- W *Writings of Charles S. Peirce: A Chronological Edition*, ed. Max Fisch et al. (volumes 1-8), (Bloomington: Indiana University Press, 1982–), followed by volume and page number.
- SS *Semiotic and Significs: The Correspondence between Charles S. Peirce and Victoria Lady Welby*, ed. Charles S. Hardwick, (Bloomington, IN: Indiana University Press, 1977), followed by page number.

Writings of Descartes:

- CSM *The Philosophical Writings of Descartes*, eds. J. Cottingham, R. Stoothoof, D. Murdoch (volumes I-II), (Cambridge: Cambridge University Press, 1984), followed by volume and page number.

INTRODUCTION

We individually cannot reasonably hope to attain the ultimate philosophy which we pursue; we can only seek it, therefore, for the *community* of philosophers (original emphasis; “Some Consequences of Four Incapacities,” 1868).¹

Beginning in the late 1860s, Charles S. Peirce aims to turn philosophy away from its individualistic tradition, dominant in the early modern period, and toward a communal study, which he sees as opening the way to progress. The individualistic approach is a dead-end for philosophy, according to Peirce, since the goals of reaching the truth and knowledge are communal ones. In the secondary literature, scholars are quite aware of Peirce’s attempt to make philosophy communal. However, there is the fundamental but more neglected question of why the study cannot be individualistic. Following the lead of other commentators, I take *epistemic individualism* to be the view that the individual is the locus of knowledge.² In this dissertation, the claim I shall defend is the following. That an explanatory framework that combines Peirce’s inferential commitments with his notion of the community of inquirers (or inferential beings) provides us with the most illuminating way to appreciate the reasons and arguments that drive his critique of epistemic individualism. I shall refer to this framework by the term *communal inferentialism* (a term that Peirce does not use, but one that I find apt, as I will explain in due course).

Although many scholars have mentioned Peirce’s critique of epistemic individualism, there is no comprehensive study of the topic yet.³ However, there is a growing interest in it, as

¹ W2: 212.

² Buchler, 1939; Murphey, 1961; Bernstein, 1964; Gallie, 1966; Scheffler, 1974; Haack, 1983; Forster, 1992, 2011.

³ While there are some brief accounts of Peirce’s reaction to epistemic individualism, there are no book-length treatments of it. Some scholars that mention the significance of Peirce’s reaction to epistemic individualism include the following: Buchler, 1939; Murphey, 1961; Bernstein, 1964; Gallie, 1966; Scheffler, 1974; Haack, 1983; Forster, 1992, 2011.

we can tell from the accounts that we do have. The most prominent accounts are from Susan Haack's "Peirce, Descartes, and the Cognitive Community" (1983) and from Paul Forster's "Peirce and the Threat of Nominalism: Foundations of Community" (1992) and his book *Peirce and the Threat of Nominalism* (2011). As we can tell from the titles of these works, these scholars focus on a key part of Peirce's critique of epistemic individualism: his notion of the community.⁴

Peirce's notion of the community reflects the social dimension of inquiry or inferential activity. He argues that this dimension is crucial for our cognitive development. By contrast, Peirce likens our situation as individuals to being in the following scenario, where a blind person and a deaf person witness a murder. Consider the following example of these two people: "One hears a man declare he means to kill another, hears the report of the pistol, and hears the victim cry; the other sees the murder done" (W2: 468). According to Peirce, as individuals, we can only gain so much information and overcome so many obstacles to knowledge. As individuals, we face severe epistemic limitations. However, by a social and epistemic process, by which we pool together our information and raise real doubts in one another, we have a much better chance to know both sides, overcome individual differences, and arrive at a true conclusion. Thus, Peirce attempts to propose and spell out the right methods or procedures for reaching the conclusion that the community of inquirers would settle on; that is, the state that would result if they were to push the process of investigation as far as it could go. According to Peirce, such thinking offers a valuable philosophical lesson: we must clarify what we mean by *knowledge*, *truth*, and *reality* by relating these notions to the conclusion of such a communal process. Peirce's insight is that, since these concepts must relate to communal accomplishments, the concepts themselves are

⁴ Peirce seems to use the word *notion* deliberately to indicate that he is referring to a growing community and a community that is potentially *unlimited* (see: W2: 239).

communal notions. As I seek to make clear in this dissertation, Peirce's insight further rests on his reasons for why the individual cannot reach our epistemic goals.

Haack and Forster, in their accounts of Peirce's critique of epistemic individualism, tend to concentrate on such an epistemic and communal process as the one just described. As we can tell from the titles of their works, both scholars look closely at how Peirce's critique of epistemic individualism relates to his critical reactions to significant positions in the history of philosophy. Haack concentrates on Cartesianism, while Forster focuses on nominalism (roughly, the view that only concrete individual things are real, so that anything said to be general or universal is merely a *name* or *nomina*). Peirce maintains that both positions are chief examples of epistemic individualism. In her essay, Haack is quite critical of Peirce, as she claims that he misreads Descartes in several respects that bear on his case against Cartesian individualism. Essentially, Haack maintains that Peirce fails to understand Descartes' method of doubt, the main instrument that Descartes claims the individual must rely on to gain knowledge. Despite these criticisms, Haack believes that Peirce's notion of the *community* offers a new, anti-individualistic pattern of inquiry, which she regards as a virtue of his position. Although I should mention that Haack is wary of the effectiveness of Peirce's communal form of investigation, since she is unsure of what the notion of the community entails (Haack, 1983: 256). In his book, Forster aims to account for Peirce's opposition to nominalism by presenting us with a picture of the nominalistic worldview that Peirce mentions but does not articulate. One part of the worldview is the nominalist's view of knowledge, which assumes the truth of epistemic individualism. Forster examines how the nominalist's epistemic claims end up leading to a form of skepticism about the external world. Forster argues that Peirce's critique of epistemic individualism exposes this problem as well as other difficulties with the nominalist's view of knowledge.

Far from entirely rejecting the accounts that Haack and Forster provide, the account I offer of Peirce's critique builds on theirs in several respects that relate primarily to Peirce's notion of the community.⁵ In the first two chapters, I will take up the work of these scholars and investigate the cases that Peirce makes against Cartesianism and nominalism. However, concerning their accounts, what I claim requires due attention is the connection between Peirce's notion of the community and his inferential commitments. It is quite significant that, when Peirce introduces the notion of the community, he does so in the context of the inferential model he proposes for gathering information and arriving at knowledge (W2: 239-241; W2: 252). Since I am focusing on Peirce's critique of epistemic individualism, where the concern is about how Peirce believes we acquire knowledge and reach our main epistemic ends, the inferential moves matter. For, above all, the inferential moves are the means for gaining knowledge, according to Peirce. When Peirce articulates his notion of the community, it is equally significant that he does so in the context of his argument that the mind is fundamentally inferential. Linking these ideas offers an in-depth insight: Peirce argues that, since the mind is fundamentally inferential, *the community consists of inferential minds*. The connection opens an illuminating window on some of Peirce's significant epistemic commitments that closely bear on his critique of epistemic individualism. Unlike the current accounts that we have, the project I take up focuses on the consequences of what I shall refer to as Peirce's *communal inferentialism*. While it takes a few steps to build the framework, I hold that my account provides us with a way to see the central reasons that convinced Peirce that epistemic individualism must be a dead-end.

Before I spell out Peirce's communal inferentialism and its relation to his critique of epistemic individualism in greater depth, it helps to take a closer look at Peirce's life and

⁵ To be clear, I also think that there is a central place for Peirce's notion of the community. However, I firmly reject Haack's criticisms of Peirce, which is a matter I take up in Chapter One.

philosophical development. While some scholars, even in philosophy, may be aware of Peirce's central ideas – including his pragmatism (or *pragmaticism*, as he later called it) – many are unfamiliar with his other ideas.⁶ Peirce saw himself as a systematic philosopher, so it helps, at the outset, to have a better sense of how his ideas hang together. By having such biographical information, we can further grasp the views of a philosopher who tends to be challenging to understand. More importantly, such information offers us insights into why Peirce takes such a stronger stance against epistemic individualism.

Charles Sanders Peirce (1839-1914) was the son of the distinguished Harvard professor of mathematics and astronomy, Benjamin Peirce, who exerted a profound influence on him. Benjamin considered Charles a prodigy, and often introduced him to some of the greatest minds in America at the time. By training and avowal, Charles was primarily a scientist and a logician. When twelve, he read Richard Whately's *Elements of Logic* (1826), and from then on, he said that he could never think of a problem otherwise than as a logical problem (Brent, 1998: 48).

Peirce is widely recognized as the founder of *pragmatism*, the philosophical movement associated with the classical age of American philosophy (1860-1940), which also included William James and John Dewey. According to Peirce, pragmatism is a logical method (CP 8.191), and he regards the kernel of it as follows: “[pragmatism is] a method of ascertaining the *meanings* of hard words and of abstract concepts” (added emphasis; CP 5.464). This formulation dispels a crude, common misconception about pragmatism, which is that it concerns what merely is practical or useful. Far from forcing the meaning of our concepts to refer only to the here and now, Peirce tends to think of the conceivable practical effects of our concepts; that is, if they are meaningful, we need to ask what predictions they hold or what expectations we have about them.

⁶ Peirce later refers to his position in “What Pragmatism Is” (1905) by the name *pragmaticism* to distinguish his position from other forms of pragmatism that he finds objectionable.

In a definite statement, free of details, Peirce maintains that we “must look to the upshot of our concepts in order rightly to apprehend them” (CP 5.4). The aim of discovering the method that would clarify our concepts is one of Peirce’s continual interests along with the need to be “masters of our own meaning” (W3: 260). When it comes to the task of clarifying the meaning of an idea or concept, it bears repeating that Peirce intends for the method to spell out the conceivable or possible effects of the idea or concept. In this way, Peirce refers to what he calls the *rational purport* of the concept (CP 5.428). That is, the meaning of an idea or concept does not merely relate to an actual situation but can relate even to the indefinite future. One central motivation of Peirce’s pragmatism is to guard against the traps of verbalism by unmasking profound-sounding but empty metaphysical assumptions. In a famous example, Peirce applies his pragmatism to the Catholic doctrine of transubstantiation, which is, roughly, the religious act of supposedly changing bread and wine into the body and blood of Christ (W3: 265-266). Peirce questions whether there would be any conceivable experiential differences between the table wine and the seemingly changed wine. While the example may be somewhat controversial, Peirce could have used the example of homeopathy or other less contentious cases.⁷ By relating our ideas or thoughts to their possible bearings on beliefs and actions, Peirce holds that pragmatism is the way to distinguish between what is meaningful and meaningless.

Independently of Ferdinand de Saussure (1857-1913), Peirce founded *semeiotics*, the theory of signs.⁸ Along with his pragmatism, many regard Peirce’s theory of signs to be one of his most significant contributions to philosophy. His theory of signs aims to provide us with a

⁷ The example of homeopathy may be more apt, since Peirce regards its claim to be curative to be bogus. “That homeopaths pay greater attention than others to diet and nursing is well known. By saying that they give no appreciable medicine, I mean that there is absolutely no other reason to think that they give *any* except the fact that patients who have taken their doses get well” (original emphasis; W1: 452).

⁸ More precisely, *semeiotics* is, according to Peirce, the theory of triadic sign relations.

systematic way to understand the nature of representation and communication. Especially at the end of his life, Peirce was absorbed in the project of coming up with an adequate theory of signs, so that future generations could fill in the details and rely on such a theory.⁹

During his lifetime, Peirce was a notorious figure in academic philosophy, as he made many enemies and gained a bad reputation. A few months before the outbreak of World War I, Peirce died in relative isolation and poverty. In large part, Peirce became *persona non grata* in academia at the time because of his volatile personality, strained social relationships, and licentious lifestyle (Brent, 1998). Such a reputation made it extremely difficult for Peirce to disseminate his philosophical ideas or find students to carry on his projects. In part, the situation explains the absence of broader acclaim for his philosophical writings. Not until the publication of his *Collected Papers* in the 1930s did Peirce's ideas begin to gain fuller recognition. Many scholars acknowledge that, as a collection, these papers suffer from several faults, the most severe being that they present Peirce's writings thematically rather than chronologically. Often they tend to fail to exhibit the progression of Peirce's ideas. More recently, the *Chronological Edition* provides a fuller statement of his thinking and better captures the development of his thought.

The imprint of Peirce's scientific training was permanent on his thinking. Trained as a chemist, he often remarked that he had his mind shaped by his life in the laboratory; and so in the spirit of his pragmatism, he would approach a problem as an experimentalist who aims to put our ideas to the test (Skagestad, 1981: 55). For Peirce, the scientific attempt to discover the truth

⁹ Peirce's theory of signs is quite complex, and in this dissertation, I do not take it up (see: Sebeok, 2001; Short, 2007). As for a simple definition of a *sign*, Peirce often states it in the following way (or some variation of the following): "A sign is something which stands for another thing to a mind" (W3: 82). Peirce claims that, for any sign, there is a triadic relation between sign, object, and interpretant (what serves to translate or interpret the meaning of the sign). In general, Peirce distinguishes the following three types of signs: icons, indices, and symbols.

connects to his views on logic. In a remark that is characteristic of how Peirce views logic, he writes, “It is a historical fact that logic originated in an attempt to discover a method of investigating truth. Moreover, the doctrines of logic, as they exist, center about the forms of inference” (W2: 350). It is noteworthy that Peirce takes the study to encompass more than formal or mathematical logic. For, under the purview of logic, Peirce would include matters that we now tend to regard as belonging to epistemology or the philosophy of science (Skagestad, 1981: 16).

Peirce saw himself primarily as a logician, and he sought to revive logic at a time when it had fallen into deep disfavour (W1: 162). Thomas Goudge remarks that, in Peirce’s day, “the whole science of logic was in a torpid, unprogressive state, against which [Peirce] never ceased to do battle” (Goudge, 1950: 111-112). Peirce made it a significant task of his to restore the reputation of logic as a serious science and proclaimed, “I am as confident as I am of death that Logic will hereafter be infinitely superior to what it is as I leave it; but my labours will have done good work toward its improvement” (CP 2.198). Peirce made several contributions to logic, as he had a hand in the development of quantification theory (i.e., predicate logic), mathematical logic, and an innovative system of existential graphs (see: Roberts, 1973).

In mapping out what he considers the common ground between logic and science, Peirce formulates what he calls the logic of science. Peirce spells out this logic in his 1865 Harvard Lectures *On the Logic of Science* and again in his 1866 Lowell Lectures *The Logic of Science; Or, Induction and Hypothesis*. These lectures precede the Cognition Series (1868-69) by a few years and provide the blueprint of the methods and doctrines that Peirce takes up in that essay series.¹⁰ A decade after the Cognition Series, he revisited these doctrines and methods in *The Illustrations of the Logic of Science*, which contained his most influential papers, “The Fixation

¹⁰ The Cognition Series is a standard way of referring to Peirce’s three papers in *The Journal of Speculative Philosophy*. In what follows, I adopt this shorthand.

of Belief” (1877) and “How to Make Our Ideas Clear” (1878). Briefly put, Peirce articulates the logic of science primarily in terms of two types of synthetic inference known as abduction and induction.¹¹ Both types of inference have a strong bearing on how we reason about our experience and objects in the world. Even if we cannot be sure of its short-term success, Peirce regards the logic of science as the primary way to make empirical discoveries. Peirce believes that by following the logic of science we would make these discoveries at least in the long run.

Turning now to his philosophical ideas and the logic of science, it is worth noticing that Peirce takes the logic of science to be the means of making empirical discoveries. He sees his communal inferentialism as putting us on the path towards the achievements that our philosophical notions of *knowledge*, *truth*, and *reality* reflect. Peirce expects that our epistemic achievements must be ones that relate to a community of inquirers or inferential beings. It is an inferential process, according to Peirce, that leads to these achievements. That inferential process includes what Peirce takes to be the three patterns of correct inference – namely, abduction, deduction, and induction. According to Peirce, inquiry begins with a surprise, a disruption, an anomaly, or a real doubt. For inquiry to begin, something must interrupt our beliefs or habits.

Peirce maintains that *abduction* is a form of inference that supplies a hypothesis or conjecture that aims to explain the surprise or anomaly. According to Peirce, the first step towards knowledge is to propose hypotheses that aim to account for what we find mysterious or surprising. In Peirce’s view, abduction is the means of generating, not justifying, a hypothesis that aims to explain surprising or puzzling phenomena. After making an abduction, *deduction* can trace out certain consequences of the hypothesis. In this case, deduction does not add any

¹¹ Peirce often refers to the pattern of inference known as abduction by different names. He sometimes calls it hypothesis, retroduction, or presumption. In this dissertation, unless there is a good reason not to do so, I am going to use the label abduction.

information to the hypothesis. Lastly, *induction* is the means of testing or justifying a hypothesis, as induction requires us to take samples – often at random – to move towards the establishment of representative generalizations. As we carry out a series of inductions, Peirce argues that we move towards the truth or towards a real representation of the things that we sample. According to Peirce, in the logic of science, each type of inference underscores a distinct epistemic value: abduction aims to explain, deduction seeks coherence and making worthwhile predictions, and induction aims at truth.¹²

In the course of studying the types of correct inference, Peirce arrives at the following remarkable view: *the mind is fundamentally inferential*. The following statements are typical of how Peirce understands the nature of the mind: the modifications of the mind are inferential (W2: 243), “every judgment results from inference” (W2: 242), and the mind is “developing according to laws of inference” (W2: 240). While Peirce’s account of the mind is of interest itself, it tends to serve a further purpose, as Peirce is eager to use it to expose the faults of the Cartesian view of the mind. In particular, he challenges the Cartesian view since it assumes that the fundamental activity of the mind is non-inferential. That is, the Cartesian view supposes that the mind contains intuitions (roughly, non-inferential cognitions or thoughts not determined by any other thoughts) and that the mind possesses a faculty by which to identify which cognitions are intuitions. This issue concerning the nature of the mind bears a deep connection to my project, since Peirce traces the Cartesian view of the mind to the root of Cartesian individualism. While I shall lay out the argument in greater depth in Chapter One, the idea is that the individual would be the locus of knowledge, according to the Cartesian, given that the mind could discover non-inferential or intuitive knowledge. Peirce deploys a probabilistic argument to show that it is

¹² The context matters here. It is in *the logic of science* – a term that Peirce uses – that he discusses these particular aims for each of these patterns of inference.

quite unlikely that the mind possesses a faculty to know which cognitions are intuitions; and hence, he maintains that there is a lack of justification for the assumption that the individual is the locus of knowledge.

Having sketched Peirce's conception of the logic of science and his supposition that the mind is fundamentally inferential, we can begin to see why Peirce insists that epistemic individualism runs into a wall of limitations. According to Peirce, the individual has only so much time, can take only a limited number of samples, and can make only so many inferences. Given that the individual is finite and extremely limited in these ways, the project of applying the logic of science, with its aim of making extensive empirical discoveries, is not one that the individual could reasonably undertake. Reflecting on the history of science and philosophy, Peirce sees that our greatest achievements come from the culmination of our collective endeavours. Each generation of inquirers is, to borrow an apt metaphor, standing on the shoulders of its predecessors. Now since such successes are the result of communal efforts and reflect the communal stable agreement that investigators would reach, Peirce holds that our epistemic notions, including truth and knowledge, must be communal notions. Put simply, these notions must be so since they must relate to the community of inquirers (or inferential beings). Accordingly, for Peirce, epistemic individualism represents the severe limitations we face; and hence, Peirce tends to treat our concepts of error, ignorance, fictions, and prejudices all as being ones that relate to individuality. By contrast, our philosophical notions such as knowledge, truth, and reality, according to Peirce, are communal notions. For example, in explicating the idea of reality, Peirce states the following:

The very origin of the conception of reality shows that this conception essentially involves the notion of a COMMUNITY, without definite limits, and capable of an indefinite increase of knowledge (W2: 239).

Peirce sees the conception of reality as standing in opposition to error, ignorance, and fiction, the distinctive marks of individuality. In the passage, the notion of a community derives from Peirce's view of the inferential mind, and the increase of knowledge or information comes from the products of following the patterns of correct inference. In particular, the results of the logic of science – abduction, deduction, and induction – lead to further knowledge or information.

“Finally, as what anything really is, is what it may finally come to be known to be in the ideal state of complete information, so that reality depends on the ultimate decision of the community” (W2: 241).

Tying together the above threads, by Peirce's communal inferentialism, I shall mean the combination of the following three components or sources:

- (1) Peirce's conception that the mind is fundamentally inferential;
- (2) Peirce's view of the patterns of correct inference;
- (3) Peirce's notion of the community

Peirce relies on these three sources to explicate our central epistemic notions, and he sees them as pointing to the inferential road towards intellectual progress and our highest epistemic aims. Together, these components offer a powerful interpretive framework in which to see what Peirce maintains is wrong with epistemic individualism. Accordingly, when I refer to *communal inferentialism*, I intend by that term the amalgam of the above sources. They have a degree of cohesion that allows one to devise a framework out of them. For, consider that Peirce's conception of the inferential mind is what leads him to hold that cognitive progress comes from adhering to the patterns of correct inference. If the mind could have intuitions, then it could bypass the need to follow such inferential patterns, and could gain knowledge or information by direct non-inferential means. The three components in Peirce's communal inferentialism tie into one another; and each reflects a fundamental philosophical commitment that Peirce retains over

the course of his writings. Thus, I maintain that there are plausible reasons in support of my decision to refer to Peirce's communal inferentialism, and then also to rely on it as the critical tool to assess Peirce's critique of epistemic individualism.

Before I conclude this general introduction, it is worth briefly mentioning that a strength of the approach I take is that it moves Peirce's inferential commitments into the light they deserve. In the scholarly literature, there is a tendency for such commitments to recede into the background, since the focus tends to be on Peirce's theory of inquiry. That theory concerns Peirce's conceptions of belief and doubt, which are most certainly quite important, but even in his theory of inquiry, Peirce's communal inferentialism plays a significant role. In large part, the situation is due to what tends to be an overly restrictive focus on Peirce's two most influential papers, "The Fixation of Belief" and "How to Make Our Ideas Clear." In both papers, Peirce develops his theory of inquiry, claiming that inquiry is the *struggle* to escape real doubt and to regain belief. Typically, scholars place a great deal of attention on what Peirce means by the end of inquiry (see: Misak, 1991; Hookway, 2000). However, in an effort to restore interpretive balance, I shall maintain that it is helpful also to see Peirce's aim in terms of *the end of inference*.¹³ Such an aim puts the focus on the right place, particularly where the concern is to explain Peirce's critique of epistemic individualism.

¹³ By *the end of inference*, I mean the upshot or result of following the patterns of correct inference (i.e., abduction, deduction, and induction) as carefully as possible. Peirce maintains that doing so would lead to a state of complete information or knowledge, which would relate to the complete development of the community.

Overview of the Chapters

In Chapter One, I reexamine Peirce's case against Cartesian individualism, and defend the case from his critics who claim that he fails to understand Descartes. I support the claim that we currently lack an appreciation of the reasons that Peirce argues from when he makes this case, and that is due to not seeing the case through the lens of Peirce's communal inferentialism. Surprisingly, there is greater common ground between Peirce and Descartes than we tend to notice, even if their approaches to our epistemic goals diverge. Overall, I aim to provide an adequate response to Peirce's critics and have us see that Peirce's communal inferentialism uncovers the reasons he argues from in his case against Cartesian individualism.

In Chapter Two, I take up Peirce's case against the nominalist's view of knowledge, and respond to an account of that view from Forster's *Peirce and the Threat of Nominalism* (2011). The nominalist assumes that the set of concrete individual things exhausts reality, and that reality is the extra-mental source or origin of our sensations. Forster rightly claims that Peirce targets the nominalist's view of knowledge, which holds that the individual must reconstruct knowledge using private sensations. However, given such a basis, the nominalist's view appears to lead to skepticism about the external world. The slide into such skepticism is, according to Forster, the problem with the nominalist's view of knowledge. In response to Forster, I show that, according to Peirce, there seems to be another option open to the nominalist: to hold that the mind can *non-inferentially* mirror concrete individual things. This option reflects what Peirce says is the nominalist's conception of the mind. I go on to apply Peirce's communal inferentialism to underscore the argument that Peirce makes to close off this option too. Overall, I hold that a communal inferentialist reading of Peirce's case against the nominalist's view of knowledge reveals that the case is even stronger than it at first appears.

In Chapter Three, I develop a communal inferentialist reading of Peirce's influential essay, "The Fixation of Belief," and will focus on a central problem in that essay, which is how to fix belief not merely in the individual but also in the community, however much the community may develop. I provide evidence to show that Peirce is once again wrestling with the general problem of epistemic individualism and attempting to expose what is wrong with it. However, the reading I offer must grapple with a set of longstanding interpretive difficulties over Peirce's theory of inquiry as he lays it out in "The Fixation of Belief." I argue that a communal inferentialist reading resolves these difficulties. To test the adequacy of my reading, I further compare it to an interpretation that Thomas Short puts forth in "Peirce on the Aim of Inquiry: Another Reading of the 'Fixation'" (2000).

In Chapter Four, I offer an interpretation of Peirce's view of truth as public. My aim is to show that Peirce means for his view of truth to expose the serious faults of epistemic individualism. Currently, there is not much scholarship on Peirce's view of truth as public. However, using Peirce's communal inferentialism, I show why Peirce maintains that truth cannot be private and why it must be public. I conclude the chapter with a treatment of Peirce's pragmatism and his effort to clarify the meaning of our concept of truth.

1 CHAPTER ONE

Peirce's Case against Cartesian Individualism

But thus to make single individuals absolute judges of truth is most pernicious (“Some Consequences of Four Incapacities,” 1868).

It is widely held that Peirce's case against Cartesian individualism is the prime example of his critique of epistemic individualism, though the case is controversial, as several scholars argue that Peirce misreads Descartes in ways that reduce the force of his case.¹⁴ Robert Meyers (1967) and Susan Haack (1983), for example, claim that Peirce fails to understand the purpose of Descartes' method of doubt, the main instrument that Descartes claims allows the individual properly to search for absolute certainty.¹⁵ However, as Douglas Anderson (2006) warns, in opposing Peirce to Descartes in such a stark way, we risk failing to see that, “Peirce saw himself as standing in an intellectual tradition with Descartes, as sharing the same problems, interests, and concerns” (Anderson, 2006: 154). Situating Peirce's critical reaction to Descartes, then, requires one to strike a careful balance: to stress the conflict between these philosophers, but not to the point that doing so fails to explore and explain what they have in common.

The aim of this chapter is to reexamine and defend the case that Peirce makes against Cartesian individualism.¹⁶ I rely on Peirce's communal inferentialism as the critical lens to uncover the reasons that support his case. I will take three steps in this reinvestigation and defense. First, taking Anderson's insight as my cue, I will begin with an account of two

¹⁴ Murphey, 1961: 101-102; Bernstein, 1964: 165; Gallie, 1966: 74; Scheffler, 1974: 53; Anderson, 1995: 105; Anderson, 2006: 157; Forster, 2011: 238-240. Consider the following passage from Cottingham: “The first thing to strike the reader about Descartes' method of philosophizing is its highly individualistic stance. The meditator, alone by the fireside, attempts to rid himself of the prejudices of the past, and reflects on his own nature and existence” (Cottingham, 1984: 38).

¹⁵ In *Descartes's Method of Doubt*, Broughton maintains that Descartes' search for absolute certainty or for the truths of first philosophy (i.e., metaphysical or primary truths) reflects the central motivation for why Descartes devises and employs the method of doubt (see: Broughton, 2002: 7; see: CSM I: 125).

¹⁶ In case it is unclear, Cartesian individualism is a specific form of epistemic individualism. It holds that the individual is the locus of knowledge, and it relies on the presumptions and argumentative strategies of Cartesianism to support that view.

epistemic goals that Peirce and Descartes have in common: (1) to free us from our *prejudices* and (2) to put us in the position of *optimal epistemic judges*. Second, I will reply to Meyers and Haack by arguing that Peirce is closely tracking Descartes' commitments. I will maintain that, for Peirce, Cartesian individualism is at the root of the problem, and that Descartes' method of doubt cannot help the individual to achieve goals (1) and (2). Third, I will show that, far from denying that these are worthy epistemic goals, Peirce sees his communal inferentialism as opening the way towards them.

1.1 Two Epistemic Goals in Common

Douglas Anderson argues (2006) that, because of a restrictive focus on their differences, it often eludes notice that Peirce and Descartes have “a background of shared interests” (Anderson, 2006: 154). Anderson warns that by concentrating so much on points of contrast we are likely to overlook the common philosophical ground between Peirce and Descartes. While Anderson does not mention the two epistemic goals that I will focus on – namely, the aim to free us from our prejudices and the aim to become optimal epistemic judges – the account that I offer is in line with his general approach. I now turn to the strongest evidence for the claim that Peirce is challenging Descartes' attempts to accomplish these two goals.

1.1.1 Prejudices and Judges

One of Peirce's central tasks in the Cognition Series is to expose the faults of what he refers to as *the spirit of Cartesianism*.¹⁷ He takes most philosophers of the early modern period – and even many of his contemporaries – to be in the grip of its influence and assumptions. Many of the

¹⁷ Peirce does not say why he refers to it as the *spirit* of Cartesianism. The likely explanation is that he is drawing the familiar distinction between the spirit and letter of a doctrine or set of teachings. Below, for example, items three and four seem to reflect the direction of Descartes' thinking, but they do not conform to the letter of his writings. Notice that items one and two closely relate to the letter of Descartes' doctrines. Peirce even refers to them as Descartes' teachings. Fortunately, my reinvestigation and defense of Peirce's case concerns items one and two below, making it a more straightforward case than it would be otherwise.

assumptions reinforce the idea that the individual is the locus of knowledge, and the two that stand out relate to the epistemic goals concerning prejudices and judges.

Peirce introduces the spirit of Cartesianism in “Some Consequences of Four Incapacities,” the second article of the Cognition Series, as follows:

1. It teaches that philosophy must begin with universal doubt; whereas scholasticism had never questioned fundamentals.
2. It teaches that the ultimate test of certainty is to be found in the individual consciousness; whereas scholasticism had rested on the testimony of the sages and of the Catholic Church.
3. The multiform argumentation of the middle ages is replaced by a single thread of inference depending often upon inconspicuous premises.
4. Scholasticism had its mysteries of faith, but undertook to explain all created things. But there are many facts which Cartesianism not only does not explain, but renders absolutely inexplicable, unless to say that ‘God makes them so’ is to be regarded as an explanation (W2: 211-212).

Items three and four are not germane to the present purposes, so I will set them aside and will instead focus on items one and two; I will further ignore the rift that Peirce notes between scholasticism and the spirit of Cartesianism.¹⁸

In his critical assessment of the spirit of Cartesianism, Peirce makes the following pair of statements, which are his direct responses to items one and two above:

- (a) We cannot begin with complete doubt. We must begin with the *prejudices* which we actually have when we enter upon the study of philosophy (added emphasis; W2: 212).
- (b) The Cartesian criterion [of truth or certainty] amounts to this: ‘Whatever I am clearly convinced of, is true.’ If I were really convinced, I should have done with reasoning, and

¹⁸ While writing the Cognition Series, Peirce was conducting a series of studies on various topics in scholasticism, and the one that he concentrated on was the *problem of universals*. I intend to set that topic aside in this chapter, though I will treat it briefly in Chapter Two. For the moment, it is worth noting that Peirce’s articles in the Cognition Series tend to mimic the scholastic style of disputation in the form of posing the contested question and presenting reasons for-and-against the question along with relevant objections and replies. Peirce believes that this style has the advantage of making sure to beg no questions (in the sense of *presuming* an answer to a contested question and pretending that an opponent would grant it unearned). Hence, he regards the scholastic style as making the key premises more conspicuous from the outset. This advantage relates to the third item of the spirit of Cartesianism. See: “Questions concerning Certain Faculties Claimed for Man” (1868) for an example of Peirce’s adoption and adaptation of such a style of argumentation.

should require no test of certainty. But thus to make single individuals absolute *judges* of truth is most pernicious (added emphasis; W2: 212).¹⁹

These responses, (a) and (b), reflect Peirce's challenge to Descartes' attempt to do the following: first, to use complete doubt to liberate the mind from its *prejudices*, and second, to make the individual an absolute or optimal epistemic *judge*.

Critics of Peirce tend to focus on Descartes' masterpiece *Meditations on First Philosophy* – and I shall outline some central themes of that work below – but some of Descartes' other writings, including his *Principles of Philosophy*, provide a clearer statement of his aim to free the mind of its prejudices. Taking into consideration what Descartes says about his effort to rid the mind of prejudices will be useful, since critics dispute Peirce's interpretation of Descartes.

1.1.2 Reinvestigation: Descartes on Prejudices

At the beginning of *Principles of Philosophy*, Descartes underscores the need to free the mind from its prejudices to know the truth. Such an emphasis appears in the first principle of that book as follows:

The seeker after truth must, once in the course of his life, doubt everything, as far as possible. Since we began life as infants, and made various judgements concerning the things that can be perceived by the senses before we had the full use of our reason, there are many preconceived opinions [praejudicia] that keep us from knowledge of the truth. It seems that the only way of freeing ourselves from these opinions is to make the effort, once in the course of our life, to doubt everything which we find to contain even the smallest suspicion of uncertainty (original emphasis; CSM I: 193).

In CSM, the editors often translate the Latin *praejudicia* into “preconceived opinions,” though some English translations of Descartes' writings use “prejudices.”²⁰ To sort out these matters of

¹⁹ These two statements capture Peirce's core responses to items one and two. However, I have extracted the statements from the longer responses that Peirce gives to each item. I will take up his responses in greater depth in sections two and three of this chapter. For now, though, these statements suffice to provide us with a grasp of why Peirce rejects items one and two of the spirit of Cartesianism, especially as they relate to the goals concerning prejudices and judges, the focal points of this section.

²⁰ In the following entry on “Prejudice” from their historical dictionary on Cartesianism, Ariew et al. explain the nature of such prejudices: “The primary target of Cartesian doubt and revision is our *praejudicia* or preconceived

terminology and gain a clearer sense of what Descartes means by *prejudices*, consider the following dictionary entry by Patterson:

Prejudices (Latin *praejudicia*, French *préjugés*; usually translated as “preconceived opinions” in CSM) are opinions that we accept not because we have clearly perceived that they are true but as a result of earlier judgments we have made...a prejudice is an opinion that is accepted without sufficient reason, but not everything accepted without sufficient reason is a prejudice. The first time I assent to something I do not clearly understand, the opinion I form is not a prejudice, but it becomes one if I continue to affirm it simply because I did so in the past (Patterson, 2016: 604).

While the English term *prejudices* may apply to judgements we make before being in a position to judge, as we can tell from this entry, Descartes maintains that the prejudices relate to the opinions one continues to assent to despite failing to have sufficient reason for them. According to Descartes, “right from infancy the mind was swamped with a thousand such preconceived opinions,” including opinions such as “the Earth is immobile” or “the sun is no larger than it appears,” but also ordinary beliefs such as “fire burns” or “I have eyes” (CSM I: 219).

In “Some Consequences of Four Incapacities,” Peirce never cites the evidence that supports his response to Descartes’ commitment to having to begin philosophical inquiry with the task of expelling the mind’s prejudices. However, since I am reinvestigating Peirce’s case – and shall proceed to defend it – I must consider some of the evidence that supports it. There are two things to note from the outset. First, Peirce regards Descartes’ goal to liberate the mind as part of Cartesian individualism, since the *individual* is supposed to carry out the task of reaching this goal. Peirce insists that the task is not one that an individual can fulfil, in large part because of the nature of the prejudices and the inability of the individual to produce the real doubts

opinions. At the outset of the *Meditations*, the meditator notes ‘how many false things, in my early years, I took for true.’ Certain opinions are acquired by the soul almost as soon as it is joined with the body...those tenacious beliefs can be relinquished, even when recognized to be false, only by strenuous effort. It is for that reason, among others, that Descartes recommends in the *Meditations* that the meditator should persist obstinately in doubting his former opinions, and impress upon himself the truths he has learned” (Ariew, Des Chene, Jesseph, Schmaltz, and Verbeek, 2003: 210-211).

needed to remove such prejudices. According to Peirce, it takes a communal effort to unfix or uproot such prejudices. Second, Descartes is connecting the goal of freeing the mind from its prejudices to the further goal of putting the individual in the position to be an optimal epistemic judge. The further goal is for the individual to be able to discover a firm and lasting foundation for knowledge. In Descartes' project, the individual is to begin philosophical inquiry with the truths of first philosophy (i.e., metaphysical or primary truths); that is, truths that are absolutely certain and indubitable. There is a tight conceptual link between these two epistemic goals: the individual cannot be an optimal epistemic judge, according to Descartes, until the individual expels the prejudices. Let us now consider the evidence from Descartes' writings that supports Peirce's choice to fix his attention on Descartes' goal to free the mind from prejudices.

In the "First Meditation" on "What can be called into doubt," Descartes says that he is "struck by the large number of falsehoods that I had accepted as true in my childhood," and he forms a plan to guard against assenting to them anymore (CSM II: 12). "For the purpose of rejecting all my opinions," he says, he will withhold judgement from anything that is the least bit doubtful. To execute this stringent policy of withholding judgement, he explores a variety of doubt-possibilities, including whether he is dreaming or whether an all-powerful evil-demon is tricking him (CSM II: 13-15). He subjects his prejudices to one wave of doubt after another, with the aim of demolishing them to discover what is beyond all possible doubt. In the *Discourse on the Method*, Descartes provides a statement of what he took himself to have done in the "First Meditation." There, he writes, "I was not copying the sceptics, who doubt only for the sake of doubting and pretend to be always undecided; on the contrary, my whole aim was to reach certainty – to cast aside the loose earth and sand so as to come upon rock or clay (CSM I: 125).

While in the “First Meditation” Descartes is not altogether explicit that the nature of his task is to expel all his prejudices, he is clear about that aim in his reflective remarks on the *Meditations*. In a thought-provoking exchange from the “Objections and Replies,” the French philosopher and priest Pierre Gassendi (1592-1655) questions Descartes about his task in the “First Meditation.” Gassendi writes,

I approve of your project of freeing your mind from all preconceived opinions [*praejudicia*]. There is just one point I am not clear about, namely why you did not make a simple and brief statement to the effect that you were regarding your previous knowledge as uncertain so that you could later single out what you found to be true. Why instead did you consider everything as false, which seems more like adopting a new prejudice than relinquishing an old one? (CSM II: 180).

To be clear about what motivates Gassendi’s question, he takes Descartes’ particular way of pursuing this task to be circuitous and liable to have readers fall into the severe error of lending credence to the possibility that God could be deceptive. According to Gassendi, a more direct, less dangerous route is to face these prejudices by more simply confessing the weakness and fallibility of the human mind. For the present purposes, I am not seeking to address the multiple aspects of Gassendi’s objections. Rather, I mean to underscore the following: that Descartes, in general, agrees with Gassendi about what the task is in the “First Meditation.” However, Descartes firmly maintains that it takes an immense effort to free the mind from prejudices. He strongly disagrees with Gassendi’s suggestion that such an effort ends up creating a new prejudice. In response, Descartes holds that, “a philosopher would not have said that ‘considering everything as false is more like adopting a new prejudice than relinquishing an old one’” (CSM II: 242). In his reply to Gassendi, Descartes writes,

You say that you approve of my project for freeing my mind from preconceived opinions; and indeed no one can pretend that such a project should not be approved of. But you would have preferred me to have carried it out by making a ‘simple and brief statement’ – that is, only in a perfunctory fashion. Is it really so easy to free ourselves from all the

errors which we have soaked up since our infancy? Can we really be too careful in carrying out a project which everyone agrees should be performed? (CSM II: 241-242).

Descartes considers the aim of removing *praejudicia* to be a valuable project and a necessary preliminary to seeking true judgement. I want now to turn to the evidence of the second goal concerning epistemic judges.

1.1.3 Reinvestigation: Descartes on Epistemic Judges

Peirce's argument against why the individual can be an absolute epistemic judge traces to his denial that we have any cognitive powers that would let us "rightly to judge," as Peirce says, which of our thoughts could be "ultimate premises" (W2: 193).²¹ Such premises would have to be ones that no further reasoning or inference could overturn or unfix. Without such a power, the key Cartesian claim loses its force. That is, the claim that the individual is the locus of knowledge rests on the assumption that the mind can know which thoughts are true or absolutely certain. Without such a power, there can be no way reasonably to insist on an indubitable foundation for our beliefs. In Peirce's eyes, if the Cartesian claim about the mind turns out to be spurious, then the rest of the Cartesian apparatus collapses along with it. However, before I describe Peirce's argument in further detail, we need to know more about what Descartes says about epistemic judges. To proceed with this examination, I will now spell out the relationship that Descartes sees between the mind and true judgements. The matter is one of the most significant in Descartes' work, for Descartes insists that, "the most absurd and grotesque mistake that a philosopher can make is to want to make judgements which do not correspond with his perceptions" (CSM II: 273).

²¹ Peirce tends to refer to what he regards as Descartes' claim that the individual could be an absolute epistemic judge. While Peirce does not say so, it is likely that he uses the word "absolute" to indicate that Descartes is seeking absolute certainty – at least to the degree possible for humans. After all, in Descartes' view, God is an absolute judge – the most eminent judge and eminent being. Considering as much, I prefer to the terms optimal judge or best judge.

It helps to recall that the full title of Descartes' masterpiece is *Meditations on First Philosophy*.²² Following tradition, by *first philosophy*, Descartes is referring to the need to begin philosophy with metaphysical truths or considerations (Mautner, 2005: 46).²³ According to Descartes, in the search for a "firm and lasting" foundation for knowledge, we need to be able to recognize such truths and see how our beliefs (if they are true or warranted) trace to the root truths (CSM II: 17). Written in the style of a personal philosophical journey, Descartes' *Meditations* depicts the thinker's turn towards the mind and away from the past along with the unreliable world of sensation. Descartes supposes that a philosophical purge will let the individual return to what *belongs* to the mind alone: its rational nature and innate ideas.²⁴ Unlike in the *Meditations*, Descartes' *Principles of Philosophy* contains a straightforward statement of his project of first philosophy. There, he writes,

The first part of philosophy is metaphysics, which contains the principles of knowledge, including the explanation of the principal attributes of God, the non-material nature of our souls and all the clear and distinct notions which are in us (CSM I: 186).²⁵

²² The subtitle is as follows: "in which are demonstrated the existence of God and the distinction between the human soul and the body" (CSM II: 12). The need for demonstrations (roughly, proofs) reflects Descartes' commitment that all knowledge should be modelled on mathematical knowledge (CSM, II: 274). According to Descartes, mathematics discloses the way in which philosophers ought to order and analyze their thinking in seeking to make discoveries. In *Rules for the Direction of the Mind*, a posthumous publication (probably written in 1628), Descartes says that he develops his philosophy on the model of mathematics and on the insight of the original meaning of "mathematics" (relating to *mathesis*, i.e., learning or discipline) and how there is a *mathesis universalis* that applies to every subject (CSM I: 19). That subject that applies to every subject is, according to Descartes, mathematics. This explains Descartes' assumption that all branches of knowledge can be unified – perhaps akin to the metaphor of the tree of philosophy – though knowledge must start with the kind that begins with the roots, with first philosophy or metaphysics. Descartes applies the mathematician's eye and sense of order to his search for the truths of metaphysics. Somewhat bombastically, Peirce remarks that, "The demonstrations of the metaphysicians are all moonshine" (CP 1.71). Peirce is explicit that we must begin philosophy and learning with *hypotheses* (i.e., abductive inference) instead of imagining that we can start with metaphysical truths and their demonstrations.

²³ According to Aristotle, first philosophy is the study of "being qua being," where that means being *per se*, as opposed to particular beings (e.g., Socrates or Bucephalus) who are in certain conditions or states (see: Rosenkrantz and Hoffman on "Being," 2011: 53).

²⁴ For a brief account of how Descartes' masterpiece owes its name to "the *via purgativa* of the meditational tradition" (especially in Catholic theology), see: Hill, 2012: 8. For an account of Descartes' doctrine of innate ideas and our rational nature, see: Cottingham, 1986: 144-149.

²⁵ Nowadays it is typical to treat Descartes as having made his most significant philosophical contributions to epistemology, the study of knowledge. That may be so, but we need to recall that he is looking to know the truths of metaphysics. With some plausibility, then, Peirce writes, "Descartes is the father of modern metaphysics, and you know it was he who introduced the term 'philosophic doubt,' he, first, declaring that a man should begin every

Descartes further pictures philosophy as follows: “Philosophy is like a tree. The roots are metaphysics, the trunk is physics, and the branches emerging from the trunk are all the other sciences...” (CSM I: 186). Notice the plural: the *roots* of metaphysics. In the more technical passage just prior to this one (quoted above), Descartes maintains that there are root truths about the mind, God, and the principles of knowledge. In the *Meditations*, after doubting as much as he can, Descartes arrives at his most famous truth or realization: that whenever he thinks about or doubts the proposition “I am, I exist,” he must be something. This is a variant of the so-called *cogito* – or *cogito ergo sum*, “I think, therefore, I am.” He asks us to do the same, and to see that God must exist, since the idea of God, an idea of a perfect and most powerful being (and arguably a perfect idea, *innately* put there by God), is one that we could not generate. While I am not going to recount or assess the details of Descartes’ entire undertaking, I mean to have us see the fundamental assumptions he makes and the way he views the structure of knowledge. The last line of the previous passage concerning clear and distinct notions or perceptions reveals the way in which Descartes believes he can know these root truths (some, or all, of which must be innate, according to Descartes).²⁶ Relying on an ocular metaphor, Descartes holds that the mind is capable of seeing “the knowledge of the truth through its first causes” (CSM I: 181).

investigation entirely without doubt” (W1: 103). The passage is from a very early – when Peirce was just twenty-four – oration titled, “The Place of Our Age in the History of Civilization” (1863). Notice that, in the passage, Peirce is targeting Descartes’ preliminary to the task of discovering the truths of first philosophy. Peirce sees, as Ariew et al. (2003) point out, that the primary function of Cartesian doubt is to eliminate (at least the influence of) our *praejudicia*.

²⁶ Descartes writes, “I call a perception ‘clear’ when it is present and accessible to the attentive mind – just as we say that we see something clearly when it is present to the eye’s gaze and stimulates it with a sufficient degree of strength and accessibility. I call a perception ‘distinct’ if, as well as being clear, it is so sharply separated from all other perceptions that it contains within itself only what is clear” (CSM I: 207-208). For Peirce’s criticisms of Descartes’ doctrine of clear and distinct perceptions, see “How to Make Our Ideas Clear,” especially: W3: 257-261. Though rarely noted, Peirce criticizes Descartes’ doctrine and the adoption of it by the Port-Royal logicians in an earlier article, “Upon Logical Comprehension and Extension.” See: W2: 271-272.

What I further want to point out is that Descartes, relying on the assumption that the mind can see what is true or most certain, aims to put us in the position then to *judge* what is true. Descartes is seeking to have us be in the optimal or best position that we, as thinking things, can be in to see the truths so clearly that the mind cannot help but assent to them. Until we apprehend the truths of the mind, as ideas of things pertaining to first philosophy, Descartes is unwilling to relinquish his policy of withholding judgement. Briefly, the reason for that is that Descartes maintains that the source of error is a failure to tie the will to the intellect, where the will tends wildly to judge what it does not know to be true (CSM I: 207; CSM II: 37-38). According to Descartes, it is irresponsible of the meditator to assent to propositions that could be mistaken. That is, the thinker is doing something wrong by failing to suspend judgement in matters where the mind cannot tell what is true. However, the case is different when the mind or intellect uses all its powers or faculties so that the mind is completely convinced. Accordingly, thinking stops where there is such conviction, for even the optimal or best judge must believe in that case. In a summary that Descartes makes to help his critics see what his project aims at, Descartes writes,

As soon as we think that we correctly perceive something, we are spontaneously convinced that it is true. Now *if this conviction is so firm that it is impossible for us ever to have any reason for doubting what we are convinced of, then there are no further questions for us to ask: we have everything that we could reasonably want* (added emphasis; CSM II: 103).

Such conviction is the truest form of intellectual freedom, according to Descartes; and he reassures his readers that there is no worry about the will being unfree because it is forced to believe what the intellect perceives to be true, since the intellect or mind is our real nature (see: CSM II: 36).

1.1.4 Peircean Insights and Critical Evaluation

Now I will provide a sketch of how Peirce responds, to have a clearer sense of his argumentative strategy, which I will return to and unfold in subsequent sections of this chapter. I take Peirce's response to be insightful, as it closely tracks Descartes' attempt to make the individual an optimal epistemic judge. Consider the following reasoning: if the mind or intellect lacks a power to see the truth, as Peirce firmly maintains, then there is good reason to reject the additional parts of Descartes' grand project. If the mind lacks such perceptive powers, then we need to be wary of the effort to trust judgement of the sort Descartes imagines. That is, in Peirce's eyes, we have to make sure we do *not* license a philosophy that considers the individual alone as the best epistemic judge. Furthermore, let us assume that we lack the special cognitive powers to find an unshakeable conviction or ultimate premise. If so, it is dangerous to pretend that we have an immovable conviction that could be ultimate, so that no possible further inquiry or reasoning could unfix it. Seen in this light, Peirce summarizes Descartes' purported test for truth or certainty as follows: "whatever I am clearly convinced of, is true" (note the parallelism – especially regarding "...convinced of" – between Peirce's criticism and Descartes' statement) (W2: 212).²⁷ According to Peirce, "If I were really convinced, I should have done away with reasoning, and should require no test of certainty. But thus to make single individuals absolute *judges of truth* is most pernicious" (added emphasis; W2: 212). We will end up being convinced – or stop inquiring or reasoning – because we believe in the certainty that the mind can apprehend metaphysical truths *a priori* (i.e., prior to, or independently of, experience). In the

²⁷ In "Charles S. Peirce's Critique of Cartesianism," Bernstein maintains that it is somewhat unfair and inaccurate for Peirce to say that the Cartesian criterion amounts to the claim that "whatever I am convinced of, is true" (Bernstein, 2010: 35). Bernstein does not mention Descartes' passage from "The Second Set of Replies" concerning spontaneous conviction. As I see it, the passage – especially in context – frees Peirce from Bernstein's charge. I furthermore do not think that the apparent parallelism in style and language is a coincidence even if Descartes' is not writing in English.

concluding sections of this chapter, I will take up Peirce's argument against the idea that the mind alone can directly apprehend what is so. Among the arcs in the circle of ocular terms that Descartes uses to describe epistemic perception, the one that Peirce focuses on is *intuition* (a special term used to refer to a kind of direct cognitive "seeing" or grasping) (see: Gallie, 1966: 62).

One last point remains about Peirce's insight into Descartes' claim that utter conviction stops all further reasoning. Peirce too takes quite seriously the idea that a conviction – whether well-founded or not – is the resting place of reasoning and inquiry. We might even say that it is the lesson that Peirce takes from Descartes. In Peirce's "The Fixation of Belief," this relates to Peirce's central point that, so long as we have a belief, we no longer inquire, reason, or have doubts about it. That is, "as soon a firm belief is reached we are *entirely satisfied*" (added emphasis; W3: 248). Even in the Cognition Series, Peirce says the following about the conviction and sort of judgements that a belief involves. "We can unquestionably distinguish a belief from a conception, in most cases, by means of a peculiar feeling of *conviction*," and Peirce continues, "it is a mere question of words whether we define belief as that judgment which is accompanied by this feeling, or as that judgment from which a man will act" (added emphasis; W2: 205). Whether we like it or not, whether we may have more inquiring or reasoning to do in the future about some given matter, if we have a belief about it, we are convinced. As I see it, that is the lesson or insight Peirce takes away from Descartes' attempt to make the individual an absolute epistemic judge. Lacking any special powers of the mind, the individual is convinced of the beliefs that the individual happens to have – and put into practice, that activity becomes most pernicious.

To reinforce the summary I am providing, consider the following evidence. In “How to Make Our Ideas Clear,” Peirce tracks the development of Descartes’ doctrine of clear and distinct ideas. There, Peirce considers how Leibniz attempts to improve on Descartes’ doctrine. The details do not matter as much as what Peirce says Leibniz did not see: “He thus missed the most essential point of the Cartesian philosophy, which is, that to accept propositions which *seem* perfectly evident to us is a thing which, whether it be logical or illogical, *we cannot help doing*” (added emphasis; W3: 259). That is, if an individual is convinced, then reasoning and thinking stops there, according to Peirce. He is explicit about this point in “The Fixation of Belief” in 1877, though it appears that Peirce grasps “the most essential point of the Cartesian philosophy” even in the Cognition Series in 1868. In less than a year after publishing the Cognition Series, in an unpublished manuscript, Peirce contends that, “the Cartesian method of philosophizing is to begin with a state of philosophic doubt and requires us to lay aside all our beliefs [i.e., Cartesian *praejudicia*] and begin the whole process of inference anew” (W2: 356). Peirce continues by pointing out that it is “impossible to have an unaffected doubt that fire burns” when we are already convinced by it (W2: 356; CP 5.498; CP 7.325).²⁸ That is, according to Peirce, we cannot help but consider it “perfectly evident” that fire burns. As I understand Peirce, he views Descartes’ project to be the following: Descartes insists that we must expel the *praejudicia* of the mind to see what is true and start from a solid foundation. But many Cartesian *praejudicia* tend to be immoveable convictions (e.g., fire burns flesh). They remain despite what

²⁸ The additional references are to the same case of fire burns. In his later writings from 1905, Peirce argues that there are many beliefs that are *indubitable*, as he says, where he means beyond actual doubt. Peirce views indubitable beliefs and acritical inferences (i.e., products of reasoning that tend to be below our level of awareness) to form the repository of our *common sense*. Nonetheless, Peirce holds that there may be an opportunity at some time to challenge them. We want to subject some of them to logical scrutiny, especially to filter out prejudices. Hence, Peirce refers to his doctrine as his *critical common-sensism* (CP 5.438). It takes the lessons from “The Fixation of Belief” most seriously. It concedes to Thomas Reid and Sir William Hamilton among others of their ilk that we do need to begin with common sense. But it remains a critical view, since it does not concede that common sense is the obvious measure of human reasoning and knowledge. That would be the end of inference or inquiry.

we want, even if it is the truth; and hence, according to Peirce, we must begin with Cartesian *praejudicia* or our prejudices (that is, with the beliefs or convictions that we actually have when we begin philosophical inquiry).

In the next section, I take up Descartes' method of doubt, and there are two reasons to do so. First, critics claim that Peirce misunderstands that method. Second, according to Descartes, the method is supposed to allow the individual successfully to achieve the two goals of freeing us from our prejudices and putting us in the position of optimal epistemic judges.

1.1.5 Descartes' Method of Doubt: Its Three Functions

In *Descartes and the Doubting Mind* (2012), James Hill notes that Descartes' method of doubt is supposed to perform at least three functions. Reflecting the order that Descartes introduces them in his "Synopsis" of the *Meditations*, Hill reports the following:

[Descartes] says that the method is designed to free us from our 'preconceived opinions' [*praejudicia*]; he says that the method of doubt is 'the easiest route by which the mind may be led away from the senses'; and he also says that the doubts will 'make it impossible for us to have any further doubts about what we subsequently discover to be true' (Hill, 2012: 43).

Relying on Hill's summary, the following is a convenient list of the three functions that

Descartes' takes his method of doubt to perform:

- (1) Free the mind from its prejudices [*praejudicia*]
- (2) Withdraw the mind from the senses
- (3) Allow the mind to discover what is beyond all possible doubt.

Given that there are these several functions, without having such a list in view, there is the risk of confusing or overlooking some of the functions. While Hill does not say so, I gather that he considers the list exhaustive, and that is how I regard the list also, though the response I offer to Peirce's critics will remain adequate, even if it turns out that there are further functions.

In *Descartes and the Doubting Mind*, Hill focuses on function (2), as he considers it an indispensable undertaking, "...a *sine qua non* for the grounding of [Descartes'] new philosophical system" (Hill, 2012: 44). According to Hill, at the beginning of the *Meditations*, Descartes is seeking for the meditator to break from "the thrall of an empiricist mindset," where that mindset is immature and pre-critical (Hill, 2012: 44). It reflects how the meditator's mind is rife with *praejudicia*, in which the meditator continues to judge as true the beliefs that stem from the senses and imagination – beliefs that are open to possible doubt. According to Hill, such a mindset is passive, and Descartes is seeking to have us see that, "The doubting mind is a judging mind" (Hill, 2012: 53). According to Hill, the doubting and judging mind is intellectually active.

Now I do not intend to dispute Hill's thesis that the primary function of Descartes' method of doubt is to withdraw the mind from the senses.²⁹ Rather, the more modest point I wish to have us appreciate is an uncontroversial one: Descartes' method is to perform at least the above three functions. In his "Synopsis" of the *Meditations*, Descartes stresses functions (1) and (2): "Although the usefulness of such extensive doubt is not apparent at first sight, its greatest benefit lies in freeing us from all our preconceived opinions, and providing the easiest route by which the mind may be led away from the senses" (CSM II: 9).³⁰ With this in view, I will now examine and take a stance on the controversy.

1.2 The Controversy: Did Peirce Misread Descartes?

Both Robert Meyers (1967) and Susan Haack (1983) argue that Peirce misreads Descartes, and their ground for the charge is that Peirce fails to grasp the purpose of Descartes' method of

²⁹ Some scholars of Descartes, including Ariew et al. (2003), claim that the primary function of Cartesian doubt is to free the mind from its *praejudicia*. After all, Descartes uses his method of doubt in the "First Meditation" to set him up to seek a firm and lasting foundation in the "Second Meditation."

³⁰ Instead of continually using the term *praejudicia*, in what follows, when I comment on Descartes' position, I will often simply use *prejudices*.

doubt. In “Peirce and Cartesian Doubt,” Meyers asserts that, “Peirce misunderstands Descartes’ method of doubt and the nature of his inquiry” (Meyers, 1967: 22). Similarly, in “Descartes, Peirce, and the Cognitive Community,” Haack argues that, “Descartes’ aim [is] to discover, which, if any, of the things he believes is certain” (Haack, 1983: 244). Haack goes on to claim that, “Peirce has no really plausible objection to Descartes’ method,” and that, “he misrepresents what the method is” (Haack, 1983: 250).

While Haack and Meyers are right that it is sometimes difficult to sort out the details of the Peirce-Descartes dialectic, I maintain that their views fail establish that Peirce misreads Descartes. I will maintain that Peirce focuses on Descartes’ attempt to free the mind from its prejudices, the first function of that method. For convenience, I shall refer to the first function as the *Cartesian preliminary* (the preliminary to the task of first philosophy). However, Meyers and Haack focus on the third function, Descartes’ attempt to push possible doubt to its limit and make us absolute epistemic judges. I hold that their views labor under a confusion or misapprehension: Meyers and Haack take Peirce to be making an argument against the method’s third function, while Peirce argues against the first function, the Cartesian preliminary.

The following passage from “Some Consequences of Four Incapacities” is at the heart of the controversy:

We cannot begin with complete doubt. We must begin with all the prejudices which we actually have when we enter upon the study of philosophy. These prejudices are not to be dispelled by a maxim, for they are things which it does not occur to us *can* be questioned. Hence this initial scepticism will be a mere self-deception, and not real doubt; and no one who follows the Cartesian method will ever be satisfied until he has formally recovered all those beliefs which in form he has given up. It is, therefore, as useless a preliminary as going to the North Pole would be in order to get to Constantinople by coming down regularly upon a meridian. A person may, it is true, in the course of his studies, find a reason to doubt what he began by believing but in that case he doubts because he has a positive reason for it, and not on account of the Cartesian maxim. Let us not pretend to doubt in philosophy what we do not doubt in our hearts (original emphasis; W2: 212).

Though it is a contested passage, I hold that the following reading is correct: Peirce is targeting the first function of Descartes' method of doubt to remove prejudices. I take Peirce's reference to the preliminary and its uselessness to be to what I am calling the Cartesian preliminary. This reading integrates the further parts of the passage, revealing a high degree of cohesion. Peirce argues that the preliminary is useless or a mere formalism since he takes Descartes' method of doubt to stall in its attempt to carry out its first function. The prejudices include convictions such as that *fire burns* or that *I have eyes*. In the next section, I will unfold the crucial parts of my reading further, for we need to ask the following: why does Peirce stress the word *can* in the above passage? The reading I support is comprehensive enough to explain that part too.

Although he does not mention the first function of Descartes' method of doubt, James Broyles, in "Charles S. Peirce and the Concept of Indubitable Belief" (1965), expresses puzzlement over what Peirce is arguing in the previous passage. Broyles finds the above passage particularly challenging to interpret, given Peirce's emphasis on the word *can*, but then Peirce's silence on what he means by that word. On this issue of what Peirce might mean, Broyles writes, "It is not clear as to whether Peirce is claiming that it simply does not occur to us to question certain beliefs or whether it occurs to us and we then see that they can not be questioned" (Broyles, 1965: 80). While there is not enough evidence to sort this out conclusively, given that Peirce is tracking Descartes' attempt to rid the mind of its prejudices, it seems that Peirce is denying that we can question them because they remain so convincing (e.g., fire burns). In that case, to answer Broyles, we may be aware of such beliefs or convictions, but we find that we are unable to question them. Our belief that fire burns perseveres in spite of our wishes or the Cartesian need to suspend judgement in it. Now notice that we are, indeed, aware of the belief that fire burns. We are conscious of the belief and ready to act on it. If a fire breaks out, we

expect that it could destroy people or things we value. This is too obvious to require that I spell it out further, but there is a connection that Peirce means for us to see: to continue to have the expectation or readiness to act is a clear indication that the *conviction* persists in us. It means that the belief is still there, even if we pretend that we are suspending judgement in it or performing the first function of Descartes' method of doubt. According to Peirce, unless we are able to undo the conviction we have that fire burns, we should confess that it is there and not pretend that we *can* doubt it or remove it.

1.2.1 Meyers's View

In "Peirce on Cartesian Doubt," Meyers relies on two central reasons to support his claim that Peirce misreads Descartes. According to Meyers, (a) Peirce and Descartes have distinct conceptions of doubt, but Peirce fails to grasp the purpose of Cartesian doubt; and (b) Descartes' preliminary is *useful* because it aims at indubitable knowledge, not a change of beliefs. Overall, Meyers argues that Peirce fundamentally fails to grasp the nature of Descartes' inquiry. Expressed rather brusquely, Meyers concludes that Peirce "misses Descartes' point" (Meyers, 1966: 20). In what follows, I will assess the support that Meyers cites for reasons (a) and (b), and then I will offer a defense of Peirce, which relies on the above reading of the key passage from "Some Consequences of Four Incapacities."

1.2.2 Peirce and Descartes on Belief and Doubt

Consistent with a standard line of interpretation, Meyers holds that Descartes and Peirce have distinct conceptions of doubt. The contrast is as follows: Descartes uses what he calls hyperbolic or methodological doubt, while Peirce only permits what he calls real or genuine doubt. As is well known, in the *Meditations*, Descartes entertains doubts such as the following: the possibility that an all-powerful evil demon might be tricking me about everything that I think I know (CSM

II: 15). Descartes employs such doubts methodologically to see where the limit of doubt is, so that he can find out what is beyond all possible doubt. However, even though Peirce knows that Descartes is aiming to push doubt to its limit, Peirce holds that such doubts are paper doubts or pretend doubts (CP 5.514; see: Johanson, 1972). The reason that Peirce makes this claim is that he will only count something as a doubt if it has the following effects on us: it must cause “the irritation of doubt” (or a feeling of dissatisfaction) and it must tend to unsettle our current beliefs or convictions (Meyers, 1966: 14; W3: 247). In Peirce’s estimation, Cartesian doubts have no such effects, and so they fail to be real doubts. Now in distinguishing these two effects, Meyers points out that they refer to two different conceptions of doubt: the *psychological conception* and the *logical conception* (Meyers, 1966: 14). Meyers argues that Peirce means to stress the logical conception, where doubt tends to destabilize belief and takes the form of erratic activity. To be clear, when Peirce discusses the nature of belief, he holds that there is a psychological side to it, as a belief is “a calm and satisfactory state” (W3: 247; W2: 205). In addition, there is a practical side of belief, since there is a readiness to act, “a habit of action” (W3: 263; W2: 205). The practical side relates to what many refer to as Peirce’s dispositional account of belief. In line with what Meyers’s calls the logical conception of doubt, he claims that is best to think of doubt as “the privation of a habit” (Meyers, 1966: 17). Meyers extracts this label from the following passage, which I will quote in full since the context is helpful in tying together the above threads:

Belief is not a momentary mode of consciousness; it is a habit of mind essentially enduring for some time, and mostly (at least) unconscious; and like other habits, it is (until it meets with some surprise that begins its dissolution) perfectly self-satisfied. Doubt is of an altogether contrary genus. It is not a habit, but the privation of a habit. Now a privation of a habit, in order to be anything at all, must be a condition of erratic activity that in some way must get superseded by a habit (CP 5.417).

While Meyers casts Peirce’s logical conception of doubt in terms of “the privation of a habit,” he suggests that Peirce’s use of *privation* is obscure. However, in a different context, Peirce

compares the relationship between “a habit and its privation” with that of “sight and blindness” (CP 2.608). Based on this comparison, I take Peirce to mean that belief is a natural state. Unlike belief, doubt is an erratic condition, which we judge we should not be in, as it is something from which we are struggling to escape.

With Peirce’s logical conception of doubt in mind, Meyers goes on to sketch Peirce’s view of knowledge. Meyers rightly sees Peirce’s view of knowledge in terms of communal inquiry, and he discusses its relation to the fixation of belief. Since I take up these matters in Chapter Three and Chapter Four, I will reserve a fuller treatment of the topic until then. In any case, what Meyers means to stress are the following aspects of Peirce’s view of knowledge: “(1) belief is a habit of action which may be present even though the individual is not conscious of his belief, and (2) man cannot see beyond his beliefs to the facts of reality” (Meyers, 1966: 14). The first aspect concerning a habit of action is familiar from the previous discussion about the logical conception of doubt. However, Meyers’s assumption that a belief, according to Peirce, could be unconscious is controversial. Peirce tends to hold that we must be at least *dimly* aware of our beliefs for them to count as beliefs. Consider that Peirce is willing to admit that a belief can be *mostly* unconscious, but that is not tantamount to admitting that a belief can be altogether unconscious. For example, in “Questions concerning Faculties Claimed for Man,” Peirce insists that, “the knowledge of belief is essential to its existence” (W2: 205), and in “How to Make Our Ideas Clear,” he plainly says, “[belief] is something that we are aware of” (W3: 263). Setting aside this issue, the second aspect that Meyers focuses on is surely correct and informative: Peirce denies that we can see over our beliefs and tell which of them is true (CP 5.440). Peirce maintains that all we have to go on, as a possible indication that they are true, is the fixation that would result from their surviving a battery of real doubts. Differently put, if a belief would carry

on being a habit of action after being subjected to a series of doubts raised by the community of inquirers, then that may suggest that the belief would stand in the long run, though there can be no guarantee that it would. At best, according to Peirce, we are seeking “a belief unassailable by doubt,” where doubt here refers to what Peirce means by real doubt (CP 5.416). Thus, we are in the following condition: “we can never verify beliefs by comparing them to non-mental facts in reality” (Meyers, 1966: 15). On that score, I take Meyers’s description of the second aspect to be insightful.

1.2.3 Meyers’s Defense

While I view Meyers’s exposition to be substantially correct when it comes to Peirce’s view of knowledge and Peirce’s logical conception of doubt, I resist Meyers’s effort to press them into the service of showing that Peirce fails to grasp both Descartes’ conception of doubt and Descartes’ view of the nature of inquiry. To support the charge that Peirce misreads Descartes, Meyers relies on the example of taking oneself to be holding a piece of paper. According to Descartes, such an everyday belief remains open to possible doubt, considering that the source of the belief may rest on a ground that fails to secure it from being conceivably false. For example, I may be dreaming that I am holding the paper or an all-powerful evil demon may be tricking me into thinking that I am holding it. Meyers maintains that Peirce’s charge that Cartesian doubts are pretend is what leads Peirce to fail to see what Descartes is doing. Meyers writes, “According to Peirce, Descartes claims the following:

(1) I doubt that I have a piece of paper in my hands.

What Descartes is claiming, however, is:

(2) It is *possible* for me to doubt that I have a piece of paper in my hands” (added emphasis; Meyers, 1966: 19).

Meyers denies that Descartes must actually doubt that there is paper in his hands, since it is only the possibility of doubt that concerns Descartes. According to Meyers, Descartes' project is to see what is beyond possible doubt, and so, Meyers maintains that Peirce misses Descartes' point. Now this is where Meyers makes a secondary point to rebut Peirce's charge that Descartes pursues a useless preliminary. Meyers rejects Peirce's claim that Descartes merely ends up with the beliefs with which he began because he did not subject them to real doubt. Rather, Meyers claims that Descartes is seeking knowledge, not true beliefs. Meyers further contends that Descartes at least takes himself to end up with indubitable awareness, which is, on the surface, not a useless pursuit. Meyers maintains the following:

In short, Descartes' doubts are about knowledge claims in his sense of 'know' and not about the truth of belief, whereas Peirce's criticism rests on the view that Descartes claims to be doubting beliefs and not merely knowledge claims. Peirce, in other words, misunderstands Descartes (Meyers, 1966: 21).

1.2.4 Assessment of Meyers's View: Including Descartes' on Belief

Based on his account of what Descartes means by possible doubt and what he means by knowledge, Meyers concludes that these moves free Descartes from Peirce's criticisms. Meyers does not consider whether there is another way of reading Peirce's case, and that appears to be part of the problem. On the surface, Meyers's defense of Descartes and the charge against Peirce appear plausible, but further scrutiny shows that his examination fails to consider that Peirce is targeting Descartes' attempt to rid us of our prejudices. Even more germane to the adequacy of my reply, it requires more than Cartesian or possible doubt to uproot such prejudices; rather, it takes real doubt to remove such prejudices or inveterate convictions. While Descartes' method of doubt does have the further aim of gaining indubitable knowledge, Meyers's account fails to consider the initial function of that method, which is where Peirce trains his sights. Consequently, I do not challenge Meyers's account of Descartes' further aim to discover

indubitable knowledge (the third function of the method of doubt). However, I hold that Meyers attacks the wrong target. I deny that Meyers supplies adequate reasons to defend both Descartes' method of doubt and the usefulness of the Cartesian preliminary.³¹

Although Meyers covers much ground in his exposition of the views of both Descartes and Peirce, one part that he does not take up is Descartes' conception of *belief*; instead, Meyers squarely focuses on Descartes' view of knowledge. Rarely do scholars consider Descartes' remarks about belief from his *Meditations*. However, they are pertinent to the present purposes, since they underscore the difficulty that Descartes encounters in having to deal with prejudices.

In the "First Meditation," where Descartes aims to call into doubt everything that he possibly can, he notices that his project begins to stall at the point where he attempts to free himself from all his prejudices. There, Descartes writes, "My *habitual* opinions keep coming back, and, despite my wishes, they capture my *belief*, which is as it were bound over to them as a result of long occupation and the law of custom" (emphasis added; CSM II: 15). The habitual opinions that Descartes mentions bear a resemblance to Peirce's description of the nature of belief as involving a habit of action. However, since Descartes regards them as stubborn prejudices that he cannot shake, he depicts himself as a prisoner of them. Descartes further remarks that he must take extreme measures if he is to liberate his mind from them; otherwise, he says, "...I shall never get out of the *habit* of confidently assenting to these opinions" (emphasis added; CSM II: 15). What is critical to notice is that Descartes concedes that his methodological doubts *fail* to free his mind from these opinions or prejudices (they win his assent in spite of his

³¹ To repeat, Descartes needs to accomplish the first function of his method of doubt, which is to remove our *praejudicia* or completely suspend the judgements that relate to them. Primarily, that is what Peirce is denying that we can do. Peirce maintains that we need to begin with the beliefs that we actually have, while Descartes tries to clear them away, especially to achieve the philosophical purge, which is the *preliminary* to his project of first philosophy. Meyers is looking at the wrong target: it is not the third function of the method of doubt that we need to focus on, but the first. Meyers's claim that Peirce badly misrepresents Descartes fails to have enough support to sustain such a strong charge.

seeing that he lacks sufficient reason to accept them). In response to this dire situation, Descartes devises the following plan:

I think it will be a good plan to turn my will in completely the opposite direction and deceive myself, by pretending for a time that these former opinions are utterly false and imaginary. *I shall do this until the weight of preconceived opinion is counter-balanced* and the distorting influence of *habit* no longer prevents my judgement from perceiving things correctly (added emphasis; CSM II: 15).

Notice that Descartes is not simply claiming that he must shake free of these prejudices to go on to set his beliefs on a new foundation; rather, the prejudices tend to interfere with his ability to discover the foundation, to perceive things correctly. While Peirce does not cite this passage, it appears to support his contention that the Cartesian preliminary to rid us of our prejudices or adequately combat their influence is a failure. Seen in this light, it is plausible for Peirce to maintain that we must begin with the prejudices that we actually have, since they tend to be so convincing. We must begin with our prejudices and then subject them to real doubt. According to Peirce, the only plausible way of proceeding is to reject Descartes' individualistic project; instead, we need to turn philosophy into a communal study. In that case, we would enter the community of inquirers (or inferential beings) and could raise real doubts in one another to free us from our prejudices.

1.2.5 Haack's View

Haack and Meyers reach the same conclusion – that Peirce misreads Descartes – though they arrive at it for different reasons. Haack says that, “Peirce’s critique has two themes – that Descartes’ method is impossible, and that it is pointless” (Haack, 1983: 238). On the first theme, Haack argues that Peirce’s reasons are “thoroughly inconclusive,” and so, she maintains that Descartes’ method is at least possible; on the second, Haack claims that his criticisms are “more effective” (Haack, 1983: 238). Haack denies Descartes’ claim to indubitable knowledge, so she

agrees with Peirce on the second theme that attempting to follow through with Descartes' method of doubt would be pointless. However, it is the first theme that I shall focus on, since Haack maintains that "Peirce has really no plausible objection to Descartes' method [of doubt]," and that he "misrepresents what that method is" (Haack, 1983: 250). Consistent with my reply to Meyers, I support the claim that Haack's view too overlooks the first function of Descartes' method of doubt, the attempt to free the mind from its prejudices. However, Haack further attends to what Peirce means by "a positive reason to doubt." And so, the response I provide builds on my reply to Meyers by adding some points about what Peirce means by such a reason to doubt, for my interpretation of it comes from my defense of Peirce and differs from the interpretation that Haack puts forth.

Haack argues that the following are Peirce's reasons for disputing Descartes' method of doubt. (A) Peirce believes that Descartes' method of doubt assumes that we can doubt at will, but voluntary doubt is impossible, and so that method must be wrong (Haack, 1983: 244); (B) Peirce holds that doubt requires a specific reason, and thus doubt cannot generalize, which means that we cannot begin with complete doubt (Haack, 1983: 247). In response, I shall argue that Peirce is closely tracking Descartes' method of doubt's first function, and that his point is not so much that we cannot doubt at will – though he does seem to hold that view – but that Descartes' method fails to uproot our prejudices. Haack's charge that Peirce misreads Descartes' method of doubt depends on her claim that Descartes indeed 'actually does begin with the doubts he has.' On that score, as I shall argue, Haack's account is mistaken; that is, Descartes insists on the Cartesian preliminary, the initial step towards the project of first philosophy.

1.2.6 Haack's Evidence: Doubt is not Voluntary

Turning to the evidence that Haack cites to show that Peirce denies that we can doubt at will, Haack begins her account with what she refers to as “the causal origin [of doubt]: doubt is the state one is in as a result of an external check to a previously-held belief. This underpins Peirce’s claim that doubt is not voluntary” (Haack, 1983: 242). According to Haack, such an origin is not within our control, and so, given its involuntary character and its connection to doubt, it follows that doubt cannot depend on our will. Haack states that, for Peirce, “doubt consists in the interruption of belief by some experience” (Haack, 1983: 243). Haack goes on to distinguish the causal account from what she refers to as the logical account of doubt. In classifying these aspects of Peirce’s conception of doubt, Haack makes the following statements:

Doubt is, in part and explicitly, *causal*: doubt is the state that results from the inhibition of belief by some stimulus (Haack, 1983: 243).

[Doubt is] more covertly, *logical*; for Peirce seems to take it for granted that the kind of experience that will interrupt one’s belief is a falsifying experience, an experience, that is, which gives one grounds to believe something incompatible with what one already believes (Haack, 1983: 243).³²

In spelling out the less familiar logical element of doubt, Haack points out that a reason to doubt what one believes could come from, say, “learning that someone else believes differently” (Haack, 1983: 244). Such an example, she claims, provides the believer with grounds to update or revise belief. While Haack does not mention it, I consider that the logical element of doubt – and in particular, Haack’s own example of that element – helps to clarify what Peirce means by having a positive reason to doubt. When it comes to a positive reason to doubt, Haack believes that Peirce makes an argument about how doubt is specific and fails to generalize. But as I aim to

³² To avoid confusion, notice that what Haack calls the causal element of doubt relates closely to what Meyers refers to as the logical conception of doubt.

show, the example of “learning that someone else believes differently” and gaining a reason to doubt from it supports the communal model of doubt that Peirce seeks to advance.

In stating her defense of Descartes’ method of doubt, Haack notes that Descartes’ places “the greatest possible disvalue” on being in error (Haack, 1983: 245). With the disvalue of error in view, Haack goes on to describe Descartes’ method of doubt as follows: “*the method is to begin with the beliefs one actually holds and submit them to a severe test, retaining only those which pass the test*” (added emphasis; Haack, 1983: 245). As we can tell, on my reading and defense of Peirce, Haack’s account makes a severe mistake here, as the method of doubt’s first function is to remove such beliefs or prejudices. I will return to this point below in my assessment of Haack’s view.

Haack argues that Peirce’s insistence that we cannot doubt at will does not undermine Descartes’ method of doubt. According to Haack, Peirce fails to understand Descartes’ sense of what it is for something to be ‘dubitable.’ On this matter, Haack says that it is easy to suppose that Descartes’ method does assume that doubt is voluntary: “One might suppose that it does, since the test of whether it is possible to doubt something would be to *try* to doubt it” (original emphasis; Haack, 1983: 245). But Haack contends that supposing that it does still falls prey to a misinterpretation, which she says we can see by attending to the matter of drawing the right distinction between two interpretations of ‘dubitable.’

1.2.7 Haack’s Two Interpretations of Dubitable: The Fundamental Distinction

At the core of Haack’s defense, there is the following distinction:

To say that a proposition is dubitable might mean either of two things:

- (a) *The descriptive interpretation*: that it is psychologically possible that someone should actually doubt it.
- (b) *The normative interpretation*: that it is possible that there should be a reason for doubting it (Haack, 1983: 245).

Haack maintains that Descartes' method relies on the normative interpretation. As Haack sees it, the normative interpretation captures the disvalue that Descartes places on error. On that interpretation, if something is in the least bit doubtful – or it is conceivable that it is false – then one should suspend judgement in it. If one objects that the suspension of judgement requires voluntary doubt, Haack responds as follows: “[since] it is the causal origin of Peircian doubt which entails its involuntary character, one cannot simply extrapolate Peirce’s thesis that doubt is involuntary to conclude that suspension of belief is also involuntary” (Haack, 1983: 246). Haack’s point is that we should read Descartes on his own terms, where that means according to the normative interpretation of dubitable.

In contrast to the normative interpretation, Haack contends that Peirce takes the descriptive interpretation and applies it to Descartes’ method of doubt. According to Haack, Peirce insists that Descartes’ method is impossible since it is *psychologically* impossible to have real doubts about many everyday things (e.g., that I have hands, that I have eyes, that fire burns, etc.). In Haack’s view, Peirce’s stress on the causal origin of doubt forces him to accept the descriptive interpretation of the ‘dubitable,’ and hence, Haack says that Peirce misreads Descartes. Haack concludes that, once we draw the above distinction, we can see that Descartes holds the normative interpretation, which apparently protects his method from Peirce’s criticisms (Haack, 1983: 244-245).

1.2.8 Assessment of Haack’s View

I turn now to an appraisal of Haack’s line of defense. Let us begin with Haack’s statement of what she asserts is quite puzzling about the Peirce-Descartes dispute. Haack finds the following puzzling:

So Descartes' test, dubitability, does *not* require deliberate doubt. And Descartes, as he says, intends to begin with the beliefs he actually has, which is, according to Peirce, the only place one can begin; *the puzzle is why Peirce should regard this as an objection to Descartes*. (Haack, 1983: 246).

Haack says she provides the grounds to exonerate Descartes' method of doubt and to show that the method is at least possible. But the problem is that what she takes Descartes to say is the opposite of what he actually said: Descartes' method's first function is to free the individual from all original beliefs or prejudices. However, Haack's view takes a significant oversight (that relates to the underscored line above). Haack's view fails to establish the conclusion that she draws: that Peirce's objections to Descartes' method of doubt are implausible and irrelevant. Quite the opposite is true: Peirce challenges whether Descartes can begin philosophy with a prejudice-free mind, which is over whether the method of doubt succeeds in performing its first function.

Against Haack's defense of Descartes' method of doubt as possible, the first theme she takes up, I deny that the focus on voluntary doubt is the correct target. While Peirce does reject that we can doubt at will, his chief target is not that point. Rather, he holds that we have convictions that tend to resist anything but powerful real doubts. The reason Peirce argues that we must begin with our prejudices is that he admits that some of them are convictions or firm beliefs. As such, they tend to influence our thinking, behaviour, and actions. Let me use a plain example – and the one Peirce keeps returning to – the belief that *fire burns*. Although it contains a bit of vagueness – for, we might ask about just what fire burns – Peirce routinely cites the example that fire burns flesh. According to Peirce, the belief reflects our animal instincts and sentiments. But, as we have seen, what is most significant to see is that, even if we take ourselves to be in doubt, if the expectations and readiness to act in certain ways does not change, then there is a strong indication that the conviction remains. For example, if someone tells me that my

house is on fire and I believe them, I am surely going to rush home to try to protect the things I value. According to Peirce, the conviction that fire burns is too strong and faces no real doubts, so that we continue to have the same expectations, readiness to act, and the same “feeling of conviction” (W2: 205). It appears, then, that Descartes’ effort to have us doubt such a conviction is bound to be a sham or fraud, which is how Peirce views it.

Now Descartes assumes that *the individual* can succeed in the task of prejudice-elimination, but Peirce knows that the individual tends to be unable to question convictions. While the example of a belief such as fire burns is one we likely have no real doubts about, the prejudice that the “the sun is as large as it appears” – a prejudice Descartes mentions – is one that we can subject to real doubt. To unsettle the conviction, Peirce relies on a *communal* process (W2: 212; W2: 239). The process aims to correct ignorance, error, and prejudices. In the more ordinary sense of the term prejudice, Peirce mentions cases such as biases about “the relation of the sexes” along with prejudices in cultural and religious practices (W3: 256). Such practices are sure to generate conviction in some, even if they may not be as strong as the conviction that fire burns. As Peirce sees it, the way towards the elimination of prejudice and error is through a communal process, in which investigators raise real doubts in one another and seek to satisfy them (W2: 212). The real doubts can unsettle the conviction on which the prejudice rests, which is why Peirce trusts the process. Eventually, if it is a prejudice we are subjecting to real doubt, then we could correct it over time.

Turning now to Haack’s second line of defense, she focuses on what Peirce means by “a positive reason to doubt,” and Haack places the emphasis on the specificity of doubt. While Haack admits that Peirce is not explicit on what he means by such a reason, the interpretation she offers, I maintain, fails to be complete or to track Peirce’s communal commitments in this

context. Given the lack of explicit clarity, it is best to return to the passage where Peirce talks about such a reason and to look for the clues there. Peirce writes, “A person may, it is true, *in the course of his studies*, find reason to doubt what he began by believing; but in that case he doubts because he *has a positive reason for it*, and not on account of the Cartesian maxim” (added emphasis; W2: 212). As I see it, a positive reason to doubt relates to Peirce’s effort to turn philosophy into a communal study. In that case, the reasons to doubt come up in that community and are not for the individual alone. In support of that angle of interpretation, we should note that, a few lines after Peirce mentions a positive reason to doubt, he refers explicitly to “the *community of philosophers*” (original emphasis; W2: 212). In that way, his process of doubt-resolution is one that folds into his greater project to restructure philosophy; that is, his attempt to transform philosophy into a communal discipline.

Overall, as I have argued, Haack’s view contains the same major flaw that we find in Meyers’s account: both overlook how Peirce targets Descartes’ aim to disaccustom the mind from its prejudices. Peirce denies that the method of doubt can do that, though it is supposed to be the first function of that method, which aims to perform the Cartesian preliminary. I conclude that the above defense I have provided frees Peirce from the charge that he misreads Descartes. As I have shown, the contrary is true. To overcome some of the prejudices – let alone *all* of them – would require real doubt, not Cartesian doubt. Based on such reasons, Peirce’s objections to Descartes’ individualistic method of doubt are not irrelevant or pointless; rather, there are quite plausible reasons in favour of his objections.

1.3 Peirce’s Communal Inferentialism

In this concluding section of the chapter, I will examine two further parts of Peirce’s case against Cartesian individualism before turning to Peirce’s communal inferentialism. The first concerns

the Cartesian view of the mind, while the second concerns an intuitive self-consciousness (an issue that relates to Descartes' so-called *cogito*). I will show that Peirce means for his communal inferentialism to open the way towards becoming optimal epistemic judges.

1.3.1 Challenging the Cartesian view of the Intuitive Mind

The first task Peirce takes up in “Questions concerning Certain Faculties Claimed for Man,” the first article of the Cognition Series, is to challenge a broadly Cartesian view of the mind that he claims most early modern thinkers suppose. The reason to qualify the view as “broadly Cartesian” is that Peirce holds that most philosophers of the time, including Descartes' rivals, accept this general picture of the mind. The most significant feature of the view is that, if it were true, the individual would have a special faculty by which to judge rightly those cognitions that would count as instances of infallible and non-inferential knowledge. That is, crucially, if the individual had such a faculty rightly to judge such thoughts, then the individual could be an optimal epistemic judge. In other words, the individual could be the locus of knowledge and epistemic individualism would be true. Given this relation to the theme of this chapter, the bulk of this section will focus on this issue concerning the mind and Peirce's argument against it.

In “Questions concerning Certain Faculties Claimed for Man,” Peirce opens the article as follows:

QUESTION 1. Whether by the simple contemplation of cognition, independently of any previous knowledge and without reasoning from signs, we are enabled rightly to judge whether that cognition has been determined by a previous cognition or whether it refers immediately to its object (W2: 193).

Peirce poses the question in quite a compressed way, but the core of it is whether the mind could have direct epistemic access to know which of our cognitions count as instances of immediate knowledge. Peirce uses the term *intuition* to refer to a cognition that would not depend on any

other cognition and would relate to its object immediately (Murphey, 1961: 106-107).³³ The term *intuition* relates to a purported sense of direct seeing (in the cognitive sense) (Scheffler, 1974: 45). Accordingly, Peirce offers the following definition: “the term *intuition* will be taken as signifying a cognition not determined by a previous cognition” (W2: 193). The status of an intuition is akin to a “premise not itself a conclusion” (W2: 193; Goudge, 1950: 14; Skagestad, 1981: 23).

One point that requires attention is that an intuition is, according to Peirce, supposed to be a *non-inferential* cognition (Prendergast, 1977: 281). That is, a non-inferential cognition could not rest on any reasoning or be determined by any previous cognitions. In that case, an intuition is supposed to provide immediate access to what is true, bypassing any reasoning process. While that is how to characterize what an intuition is, according to Peirce, he is asking the more fundamental question: do we have a mind *capable* of having an intuition? In another form of Descartes’ idiom, Peirce can rephrase the question to ask whether the mind contains a cognitive power to have intuitions (or clear and distinct perceptions).

1.3.2 The Argument from Disagreement: Against an Intuitive Power

Against the claim that we have an intuitive cognitive power, Peirce makes the following argument, which I now reconstruct and refer to as his *argument from disagreement*.

1. If the mind has an intuitive power to tell which cognitions count as intuitions, then we should not disagree about which cognitions are intuitions
2. We often disagree about which cognitions are intuitions
3. Therefore, it is quite probable that the mind lacks such an intuitive power (W2: 194-195).

³³ It is noteworthy that Peirce traces the origin of the term *intuition* in philosophy, claiming that the first to use it – more specifically, the word *intuitus* – was by St. Anselm in his *Monologium*. Turning to its use in the scholastic period, Peirce refers to Duns Scotus’ doctrine of intuitive cognition, where “no intuitive cognition was allowed to be determined by a previous cognition” (W2: 193).

Peirce does not take this argument to establish its conclusion with deductive certainty. Rather, he sees the argument as providing quite strong probabilistic evidence that we lack such an intuitive power. We need to keep in mind, though, that Peirce uses the argument to target those early modern thinkers such as Descartes who assume that looking to one's own mind or internal authority was the way to settle questions. As Peirce put it, "the power of intuitively distinguishing intuitions from other cognitions has not prevented men from disputing very warmly as to which cognitions are intuitive" (W2: 194). Peirce further draws a historical connection: "In the middle ages, reason and authority were regarded as two coordinate sources of knowledge, just as reason and the authority of intuition are now" (W2: 194). These sources are, in embryonic form, "the method of authority" and "the method of a priority" that Peirce discusses in "The Fixation of Belief" (methods I describe in further detail in Chapter Three).

Peirce denies that we are able to begin philosophy with prejudice-free minds and that we must begin with intuitions. If the mind were able to recognize such intuitions, we should expect more agreement about what counts as an intuition. But the case of the clash between the sources of internal and external authority challenge the assumption of there being an intuitive power. Furthermore, since careful and serious thinkers disagree about what counts as absolutely certain or intuitive, there is plenty of evidence against the assumption that we have such a power. Overall, if Peirce's argument stands – and I take there to be plausible reasons in support of it – then the internal authority that could make the individual the locus of knowledge is unwarranted. The Cartesian rationale to put the individual in that position rests on the idea that the individual's mind contains intuitive faculties. However, before concluding his case against Cartesian individualism too hastily, Peirce anticipates the Cartesian reply that our concept of the self must be intuitive.

1.3.3 No Intuitive Self-Consciousness

Based on the above denial that we have an intuitive cognitive power, Peirce questions whether “an intuitive faculty of self-consciousness is the most probable cause which can be supposed” (W2: 201). Peirce does not mention Descartes’ *cogito* in this context, though many scholars see Peirce as challenging the status of the *cogito* here (Haack, 1983: 251; Skagestad, 1981: 20). That is, by disputing that there is intuitive self-consciousness, Peirce’s response is to the claim that self-consciousness is something that we cannot be mistaken about and must be intuitive. Peirce maintains that, “self-consciousness may easily be the result of inference” (W2: 204). But what is the argument he relies on to establish such a claim? To support his view that even self-consciousness could come from inference, Peirce provides a miniature theory of the development of self-consciousness. As he sees it, the self emerges through a recognition of error, by a mistaken inference, and not the recognition of the self by an intuitive cognitive power.

The key to Peirce’s account is that the origin of self-consciousness comes from making an error, from a discrepancy or surprise in our experience. In having such an experience, the fallible or personal self emerges. Borrowing from Kant, Peirce considers the development of the self in young children who only begin using the word “I” at a later stage of their development. He mentions the case of a hot stove or a lit candle. The child’s parents may warn that the stove or candle are capable of burning the child, but the child may ignore its parents and want the world to be just the way that matches up with its desires and wants. When the child burns itself, the child then recognizes that there must be a source of the ignorance or error, so that there is here the dawning of self-consciousness. According to Peirce, the upshot of this account is that there is no need to assume that there is an intuitive self-consciousness. Since the account explains the facts without that assumption, it provides a plausible or adequate way to see how the

development of the self could be the result of inference (that there must be a private self that is the source of error or ignorance). Accordingly, there is no reason to assume that we have an intuitive cognitive power in this case.³⁴

1.3.4 The Communal and Inferential Process

Peirce clears the way for his communal inferentialism by denying that there is an intuitive power by which to gain non-inferential knowledge and an intuitive self-consciousness. Absent these powers, the question becomes one of how to make intellectual progress. Connecting the above points, Peirce is maintaining that we must begin with the convictions that we actually hold, but we also need to start philosophy with an account of the inferential and communal process. In short, Peirce insists that we begin with our convictions and with the patterns of correct inference, which he says we have no real doubts about once we appreciate what the patterns are (W2: 242). Let us now investigate the relevant patterns of inference and consider the role that Peirce sees the community as having.

In “Some Consequences of Four Incapacities,” Peirce claims that, “all knowledge of the internal world is derived from hypothetical reasoning” (W2: 213). In making this claim, Peirce is challenging the Cartesian views about introspection, intuitive cognition, and the private, “internal world” of the individual thinker (W2: 205). According to Peirce, these are not the conditions we in are when we enter inquiry, and he regards them as the products of the false view of epistemic individualism. Turning to his positive proposal, Peirce insists on the following:

The class of modifications of consciousness with which we must commence our inquiry must be one whose existence is indubitable, and whose laws are best known... We must begin, then, with a process of cognition, and with that process whose laws are best understood and most closely follow external facts. This is no other than the process of correct inference, which proceeds from its premise, A, to its conclusion, B, only if, as a

³⁴ For an account of Peirce’s view of the self, see Vincent Colapietro’s (1989) *Peirce’s Approach to the Self*.

matter of fact, such a proposition as B is always or usually true when such a proposition as A is true (W2: 214).

In this pivotal passage, by *indubitable*, Peirce is not referring to the Cartesian sense of the term (i.e., something that is beyond all possible doubt, including hyperbolic doubts). Rather, he means the condition where we are free from *real* doubt.³⁵ With respect to his inferentialism, Peirce maintains that, “every judgement results from inference” (W2: 242) and that, “Every exercise of the mind consists in inference” (W2: 242). Such claims are part of Peirce’s massive effort to “reduce all mental action to the formula of correct reasoning” (W2: 214). Setting aside that part of his project, the reductionist side of it, it is his view that, since the mind is fundamentally inferential, to make progress, we need to follow an inferential process.³⁶ As he sees it, our best judgements would be the ones that would result from carrying out the process. Accordingly, that is Peirce’s way of putting us in the position of optimal epistemic judges.

As for the patterns of correct inference, Peirce classifies them in two ways.³⁷ On the one hand, there is necessary inference (in the form of deduction), and on the other, there is probabilistic inference (in the form of induction and abduction). During the 1860s, in outlining what he refers to as *the logic of science*, Peirce casts these patterns in the form of Aristotelian syllogisms.³⁸ Peirce spells out these patterns of inference as follows:

³⁵ According to Peirce, a real doubt is one that tends to produce a sense of nervousness or irritation and one that tends to unfix the habit of action or conduct that a belief involves. As Peirce sees it, a methodological or hyperbolic doubt is unlike a real doubt in those respects. Ordinarily, Peirce refers to such a doubt as a counterfeit paper doubt or a Cartesian doubt.

³⁶ For accounts of Peirce’s larger project to reduce all mental activity to the patterns of correct inference, see: Murphey, 1961; and Hookway, 1985: 30-32.

³⁷ The following reconstruction of Peirce’s view of the logic of science reflects the presentation of it in the entry by Burch in the *Stanford Encyclopedia of Philosophy* on “Peirce” along with the presentation of it by Bellucci and Pietarinen in the *Internet Encyclopedia of Philosophy* on “Peirce’s Logic.”

³⁸ The reason that Peirce casts these patterns in the form of Aristotelian syllogisms when he spells out the logic of science deserves some comment. First, we need to remember that Peirce is writing not long after Kant had concluded that Aristotle had completed logic and that the logician’s work would be to refine Aristotelian logic (Murphey, 1961: 55-94). Second, Peirce did not make pioneering contributions to quantificational logic until around 1885, though he did appreciate the logic of relatives in the early 1870s and there did not limit his attention to syllogistic logic. It was Kant’s claim that all correct inferences could reduce to *Barbara* that Peirce meant to correct.

Figure I
Deduction:

S is M
M is P
S is P

Figure I moves from a major premise (S is M) to its minor premise (M is P) to its conclusion (S is P). A deductive inference, according to Peirce, involves *necessary reasoning*, so that, when the premises are so related to conclusion, as they are in Figure 1, the conclusion follows from the premises (CP 1.65). According to Peirce, “Deduction is the only necessary reasoning” (CP 5.145). That is, its reasoning is conclusive, not probabilistic.

Peirce spells out two patterns of probabilistic inference that are inversions of Figure I (see: W2: 30-31; W2: 215; W3: 326). These patterns are the following:

Figure II
Abduction:

S is M
P is M
S is P

And,

Figure III
Induction:

M is S
M is P
S is P

Barbara is a syllogism that entirely consists of universal affirmative categorical propositions, so that it takes the form of AAA. For example, All Greeks are Mortal; All Athenians are Greeks; therefore, All Athenians are Mortal. When he articulates the logic of science, Peirce is also responding to Kant’s claim about this attempt at reduction, but Peirce is still under the assumption that he must think of the proposition in terms of the subject and predicate (and has not fully realized the import of the logic of relatives). A fuller book-length treatment of this matter appears in Murphey’s *The Development of Peirce’s Philosophy*. Murphey provides us with a chronological account of how Peirce’s philosophical system(s) develops in light of his logical advancements. I intend for this footnote to help the reader to know some of the relevant historical context and have a sense of the philosophical ideas that led Peirce initially to classify the logic of science using Aristotelian syllogisms. A comprehensive treatment of these matters is beyond the scope of this section and this project.

Figure II and Figure III do not provide conclusive support for the conclusion, so they are not logically (deductively) valid in the contemporary sense of the term.

An example can help to grasp the above figures. Relying on his Rule, Case, and Result way of organizing inferential patterns, Peirce characterizes the above patterns as follows:

- (i) Deduction:**
Rule all the beans from this bag are red
Case these beans are from this bag
Result these beans are red
- (ii) Induction:**
Case these beans are from this bag
Result these beans are red
Rule (probably) all the beans from this bag are red
- (iii) Abduction (or Hypothesis):**
Rule all the beans from this bag are red
Result these beans are red
Case (probably) these beans are from this bag

Burks provides a helpful statement of the two probabilistic types of inference: “induction is an inference from a sample to a whole, while abduction is an inference from a body of data to an explaining hypothesis” (Burks, 1946: 301). In short, abduction aims to explain by putting forth a hypothesis or conjecture, while induction takes the form of a sampling inference that seeks to represent a real ratio (e.g., things having a particular quality such as these beans are red).

In Peirce’s later writings, he outlines the logic of science in terms of stages of inquiry (EP2: 441; Anderson, 1995: 49; Forster, 2011: 133). The first stage is abduction, the second is deduction, and the third is induction (CP 8.209). Abduction relies on a conjecture that aims to account for something surprising or an anomaly. Based on the conjecture or hypothesis, we then deduce predictions or consequences. After having the predictions in place, we can then test them with the sampling process of induction (CP 7.672). As Peirce put it, “Abduction commits us to

nothing. It merely causes a hypothesis to be set down upon our docket of cases to be tried” (CP 5.602). It is worth pointing out that contemporary philosophers tend to use the term abduction to mean “inference to the best explanation” (see: Misak, 2013: 48). For Peirce, though, an abduction begins with a conjecture or hypothesis. As we gain more information, our abductions can become better and more explanatory (W2: 209). Abduction begins with hypotheses, especially as opposed to intuitions, as defined above.

I indicated above that the stages of inquiry in the logic of science are to move us closer to being optimal epistemic judges. To illustrate these stages, consider the following example of malaria (from *mala aria*, which literally means *bad air*).³⁹ Before I use this example, I must say that I am not assuming here that we are starting from scratch, so to speak, with no beliefs already formed or no inferences already made; rather, the purpose of this example is to show the movement from one stage to next, and how the process is supposed to work.⁴⁰ Imagine we are living in a time and in a society where we do not know much about disease or what the cause of malaria is. But further imagine that we are the proto-epidemiologists of our society who need to figure out what the cause is. After considering some cases, we conjecture that the air around stagnant water is the source. From there, we then deduce that the stagnant water, in general, is the cause. Warnings go out for people to stay away from such waters so that they do not contract the “bad-air” disease (where that air is around bodies of stagnant water). However, we mean for our deductions to serve as predictions for further inductive tests. To perform the induction, we

³⁹ While I am imagining this example and taking some liberties in filling in the details (especially to illustrate the stages of the logic of science used in the process of scientific discovery), the example likely reflects, to some extent, how we discovered the real cause of malaria. Malaria is, of course, a mosquito-borne disease rather than caused by the foul air around stagnant bodies of water.

⁴⁰ Peirce admits that, when we begin to reason explicitly, it is quite likely that we have already arrived at various beliefs, including ones as primitive as fire burns or as general and indefinite as there is something outside the mind that impinges on us. In this example of malaria, I am *not* assuming that we begin in a state where we have no beliefs and then begin to gain them through the stages of inquiry.

intend to take a wide range of samples to figure out whether the ponds, tarns, or bogs in the area are the source of the epidemic.⁴¹ *Eventually*, we notice that there is a connection between stagnant water with mosquitos in it and outbreaks of malaria. Given our previous thinking, we now encounter a further surprise about the mosquitos, not the bad air, being the cause. In this way, we engage in the inferential process in the form of these stages of inquiry again, but this time with the hypothesis that the mosquitos are the source of the outbreak.

Such an illustration captures the process that Peirce relies on to make intellectual progress, but what to notice now is that the process cannot be one for the individual alone. In aiming to make as many empirical discoveries as we could, there are too many hypotheses to make, predictions to deduce, and samples to take. If there is a chance of success, Peirce argues, the inferential process needs to be communal. On this matter concerning the communal and inferential process, Peirce writes, “at any moment we are in possession of certain information, that is, of cognitions which have been logically derived by induction and hypothesis” from other cognitions (W2: 238). By continuing with the inferential process, Peirce maintains that, in the long run, “The cognitions which thus reach us by this infinite series of inductions and hypotheses...are of two kinds, the true and the untrue...” (W2: 239). On that ground, he further states that, “at a time sufficiently future, the community will always continue to reaffirm...” judgements that would be true (W2: 239). But the judgements would be “dependent on the future thought of the community” (W2: 241). Accordingly, Peirce’s communal inferentialism is the way he maintains that we could become optimal epistemic judges (W2: 241).

⁴¹ Again, if I were to assume that we are starting from scratch here, without beliefs and without having made previous inferences, then it would appear that I have smuggled in a series of inductions and other inferences when it comes to testing these particular things. But I make no such assumption in this example, and I have explicitly canceled out that assumption in previous footnotes. I would like to thank Dave DeVidi for prompting me to think about this example further. However, if there remain faults or infelicities with this example, I take full responsibility for them.

1.4 Conclusion

In this chapter, I reinvestigated and defended Peirce's case against Cartesian individualism, which is what scholars consider the prime example of epistemic individualism. In the first section, I reexamined Descartes' aims concerning prejudices and epistemic judges, using the textual evidence from his work and the accounts from scholars of Descartes. The need to do that was to make sure to carry out a fair and accurate reexamination. In the second section, relying on the material and conclusions from that reinvestigation, I defended Peirce from his critics who assert that he misrepresented Descartes and failed to understand the purpose of the method of doubt. By showing that Peirce is contesting the first function of the method of doubt, I rebutted their charge. In the third section, I considered how Peirce opens the way toward our epistemic goals by relying on his communal inferentialism. According to Peirce, such a model exposes the flaws of Cartesian individualism and restores a viable path towards our central epistemic aims.

2 CHAPTER TWO

Peirce's Case against the Nominalist's View of Knowledge

The gist of all the nominalist's arguments will be found to relate to a *res extra animam* (original emphasis; "*Fraser's the Works of George Berkeley*," 1871).⁴²

In the previous chapter, I reexamined and defended Peirce's case against Cartesian individualism. There, using Peirce's communal inferentialism, I replied to the severe charge that Peirce misread Descartes. I argued that Peirce's communal inferentialism provides the explanatory framework in which to appreciate the set of plausible reasons that supports Peirce's case. One entry point into the present chapter is to return to the issue of whether the individual can be the locus of knowledge, and to concentrate on whether the individual's mind can gain *non-inferential* knowledge. The question about the nature of the mind and whether the mind can gain such knowledge crops up again, but this time in a different context. As I pointed out in the previous chapter, Peirce rejects Descartes' assumption that the individual must look inward, having to rely on the mind alone as the primary source of knowledge. According to Descartes, the individual must seek a foundation for knowledge in the form of a rational intuition (i.e., a cognition that is non-inferential and known with absolute certainty).⁴³ As I showed, Peirce denies

⁴² W2: 471. A *res extra animam* translates as a thing external to the mind. In this context, it is a thing-in-itself, an incognizable reality, as Peirce refers to it.

⁴³ That Descartes' appeal to rational intuition is what Peirce is contesting appears in numerous accounts in the literature (see: Buchler, 1955: ix; Scheffler, 1974: 44-45; Skagestad, 1981: 23; Haack, 1983: 251; Anderson, 2006: 155). Recall that in Chapter One I took up the issue concerning whether there are rational intuitions and whether the mind is equipped to know whether there are any. For Descartes, rational intuitions are what he is seeking as the truths of first philosophy, as what form the foundation for knowledge. Peirce quite firmly denies that the mind has a special faculty by which to identify an intuition. If we had such a faculty, there should be much less disagreement about fundamental issues. However, there is much disagreement over them, which then casts strong doubt on whether there is such a faculty. I laid out the argument in some detail at the end of Chapter One. There, I made it clear that the assumption that the mind has such a faculty might lure some thinkers to endorse Cartesian individualism. However, relying on Peirce's work, I showed that there are strong reasons to doubt that there is such a faculty, and hence there are strong reasons to challenge Cartesian individualism along these lines. In the context of Chapter One, the upshot is that the individual could not be in the position of an optimal epistemic judge.

that the mind can recognize such an intuition, and so, against Descartes, he maintains that the individual cannot be an optimal epistemic judge or the locus of knowledge.

In this chapter, I will investigate Peirce's case against the nominalist's view of knowledge, and will give special attention to Peirce's reasons for rejecting the nominalist's assumption that the individual's mind can mirror (i.e., *non-inferentially* picture) things in the world.⁴⁴ While Peirce's case against the nominalist's view of knowledge is complex, I shall propose a way of capturing the core argument that Peirce makes against it. Essentially, as I see it, Peirce is forcing the nominalist to face what I shall refer to as *the dilemma of epistemic individualism*. When it comes to the possibility of gaining knowledge of things in the world, the dilemma consists in the following alternatives: either the nominalist assumes that the individual's mind can mirror concrete individual things, *or* the nominalist must concede skepticism. The first horn is a false view of the mind, while the second is a position fatal to any attempt to gain knowledge. In three sections, I will spell out Peirce's case against the nominalist's view of knowledge along with the

⁴⁴ There are limitations to the scope and theme of this chapter, considering that Peirce traces the threat of nominalism to all aspects of philosophy and even to aspects of everyday life (see: Forster, 2011). In response, then, I can only briefly touch on what nominalism is, according to Peirce. Primarily, he regards it as a position in the scholastic debate over the reality of universals or generals. In the *Century Dictionary*, Peirce provides the following entry: "*Nominalism*: The doctrine that nothing is general but names; more specifically, the doctrine that common nouns, as man, horse, represent in their generality nothing in the real things, but are mere conveniences for speaking of many things at once, or at most necessities of human thought; *individualism*" (EP1: xxiv). To be clear, in this dictionary entry, *individualism* refers to the nominalist's commitment that only concrete individual things are real. A universal or general is supposed to be an entity or being that could be predicated of and instantiated by more than one particular thing. For example, this bowling ball and this marble seem to have a common property of *roundness*. In this case, roundness is supposed to be a universal, since both things are said to partake in it. We can ask, then, whether roundness is real. There are two things to say about this. First, for Peirce, the predicate roundness is going to operate as a sign, perhaps even as a symbol, so that it is of the nature of a word or sign. It is not something that exists independently of round things (the misconception is due to a failure to know what the scholastic debate was about, and then to use the sort of strawman positions that opponents make out of scholastic realism). Second, Peirce thinks that the answer depends on being clear about what we mean by *real* and having a sense of what the mind must be like. As I shall explain in the chapter, by *real*, Peirce at least means what is independent of what anyone in particular thinks. In Peirce's later writings, he defends the view that there are real laws or real types (CP 1.16). What makes such entities general is that no number of concrete individual things or instances could account for what they are. Consider a natural law such as gravity. For it to be such a law, it cannot depend on any finite number of instances of things obeying it. Rather, if it did have that sort of dependence, it would not be a law or be general. (For accounts of Peirce's reaction to the medieval debate over universals, see: Boler, 1963; Mayorga: 2007).

dilemma just mentioned. First, following Forster (2011), I will present an account of the nominalist's view of knowledge. Second, I will take up the problem concerning skepticism about things in the external world. Third, I will examine what Peirce regards as the nominalist's conception of the mind and why Peirce insists that this conception is false.

2.1 The Nominalist's View of Knowledge: Building on Forster's Reading

In *Peirce and the Threat of Nominalism* (2011), Paul Forster tracks Peirce's case against nominalism over a broad range of issues that relate to ethics, mathematics, psychology, and religion, among other areas of study. One particular area that Forster focuses on is the nominalist's view of knowledge and Peirce's rejection of that view. Forster begins his account of the nominalist's view of knowledge with what he refers to as "the essence of nominalism," which involves a central ontological claim (a claim about what there is). According to Forster, the essence of nominalism is as follows: "Nominalists hold that reality comprises individuals" (Forster, 2011: 4). It is this ontological claim that shapes the nominalist's view of knowledge. As Forster points out, nominalists maintain that all entities reduce to one type: to concrete individual things. That is, to put it simply, nominalists recognize only particular things as real, so that there is only this cat, that rock, this tree, that computer, and so on – along with the particular qualities or properties of each thing. Accordingly, nominalists deny that there are universals or generals, where a universal or general is supposed to be an entity or being that more than one thing can partake in or instantiate. For such general entities, there is no way to refer to them as this thing or that thing because they are not particular or individual things. The essence of nominalism, then, excludes generals or universals from an account of what there is.

Even at this early stage of the account, we can see why Forster takes the essence of nominalism to constrain the nominalist's view of knowledge in a rather straightforward way. To

appreciate the connection, it is worth noting the following. Since knowledge in part depends on representing what is real, and there are only concrete individual things, according to the nominalist, all knowledge must be of concrete individual things. For the nominalist, anything else that we claim to know besides such things would amount to an empty claim. These points about the nominalist's ontological commitment further help to clarify the meaning of the term *nominalism*. Consider, for example, a claim that fails to pick out an individual concrete thing. Say, I claim that roundness is the common property of this bowling ball and this marble. In response, the *nominalist* will argue that the object of the claim – the *roundness* of these things – is not something in addition to these two things, but is a mere name, *nomina* (see: Mayorga, 2007: 1). The nominalist may grant that this ball is round and that this marble is round, but the nominalist will likely maintain that each thing has a *particular* roundness, so that roundness is not common to each (see: Rosenkrantz and Hoffman, 2011: 205-206). On such a basis, the nominalist will go on to dismiss or explain away claims about the reality of generals or universals. Even if everyday language seems to suggest that some things are general or universal, the objects of such claims are mere names, according to nominalists, and not real things. To reiterate, the central ontological thesis of nominalism is that there are only concrete individual things along with the particular properties related to them. Accordingly, nominalists insist that positing the existence of anything else besides such things and their properties is superfluous. The nominalist seeks to be as frugal as possible in ontology and to admit only what there is.

After spelling out the nominalist's ontological commitments in a similar way to how I have above, Forster describes the nominalist's view of knowledge as follows:

Nominalists typically claim that the individual experiences that provide the foundation of knowledge are private. As a result, they view epistemology as charged with the task of explaining how representations of reality can be known to be true when knowers can

never get outside those representations to compare them with things as they are apart from thought (Forster, 2011: 5).

Forster's emphasis on the nominalist's view of knowledge being one that relates to private sensations or individual experiences puts the focus in the right place. It underscores how the nominalist's view of knowledge assumes epistemic individualism. At this stage, a point of contrast is worth underscoring to avoid confusion. Unlike the proponent of Cartesian individualism, the nominalist tends to accept sensory experience as the source of knowledge. The proponent of Cartesian individualism must reject sensory experience from playing a fundamental epistemic role, since sensation is open to possible doubt and falls short of absolute certainty. According to the nominalist's view of knowledge, the individual must find a way to achieve knowledge by using private sensations or by relying on what is supposed to be the mind's faculty of intuition. As I shall aim to show, the point about private sensations raises the problem of external world skepticism for the nominalist, while the latter possibility about the mind, on the surface, may seem to make the nominalist's view of knowledge viable. I will argue that the nominalist's view of mind, however, cannot rescue the nominalist's view of knowledge; rather, the failure to rescue that view of knowledge generates *the dilemma of epistemic individualism* for the nominalist.

While these points about private sensations and the foundation of knowledge capture the nominalist's view of knowledge in broad outline, the case becomes clearer when we appreciate the thinkers that are Peirce's main targets. Peirce's case against the nominalists includes scholastic thinkers such as William of Ockham but also thinkers closer to his own time. In the *Cognition Series* and his review of "*Fraser's Works of George Berkeley*" (1871), Peirce argues that the British empiricists were the inheritors of scholastic nominalism, and he tends to target

these philosophers.⁴⁵ On this point, Murphey remarks that “the British empiricists...if they were not overtly nominalists, yet subscribed to doctrines tending in that direction” (Murphey, 1961: 107-108). To be clear, the British empiricists that Peirce tends to criticize include Hobbes, Locke, Berkeley, and Hume. It is well-known that these thinkers maintain that sensation is the primary source of knowledge. In the *Cognition Series* and his review of “*Fraser’s The Works of George Berkeley*,” Peirce holds that the British empiricists tend to consider our ideas to be *copies* of concrete things in the world. To take a simple example, if I have the idea of a dog, it would have to be of a dog with a certain colour, size, shape, and so on. Peirce notes that many of the British empiricists take the difference between the content of a sensory experience and the idea of it to come down to a difference of vivacity, force, or liveliness. An idea, that is, is supposed to be a fainter or more decayed copy of the original experience or sensory impression (W2: 232). The idea I have of the dog, that is, is less vivid than the impression I had of the dog while I was looking at that animal. These points concerning the British empiricists and their views about sensory impressions and ideas are quite familiar. However, Peirce makes the more original and provocative claim that the British empiricists subscribe to these views about sensations and ideas because they – perhaps unwittingly – make nominalistic assumptions.

In his review of “*Fraser’s The Works of George Berkeley*,” Peirce provides evidence to show that the British empiricists assume the essence of nominalism, *viz.*, that only concrete individual things exist. While I refrain from taking up the historical case that Peirce makes, which relies on tracing the influence of William of Ockham and other scholastic nominalists on the British Empiricists, there is a plausible case for Peirce’s claim when we consider the following problem. For the British empiricists, a troublesome problem is how we can gain

⁴⁵ The reference is to a book review that Peirce wrote of the edition of Berkeley’s works edited by the Scottish theologian and philosophers Alexander Campbell Fraser (1819-1914).

knowledge of concrete individual things in the world on the basis of our sensory experience. In support of his claim, Peirce underscores how the British empiricists maintain that knowledge of anything real must be of a concrete individual thing, so that true impressions of such a thing must be as definite as the concrete thing itself. Using the simple example above, if I have a true impression of this dog, it must capture the characteristics that the dog actually has and must represent them as they actually are.

Returning to the point about private individual experiences, Forster explains several points that relate to the nominalist's attempt to find a foundation for knowledge. Forster writes that, "Peirce rejects the view, traditionally held by nominalists, that knowledge claims are grounded by what is present immediately in experience...the nominalist thinks the mind is given particular experiences – ideas, impressions, or sense data – and these experiences are the source of knowledge" (Forster, 2011: 113). How this relates to epistemic individualism is that the experiences must be private, since the sense data are private and the senses of individual experiencers are separate. Essentially, no two individuals could have the same experiences. Forster explains that, "Since no two inquirers are immediately connected to the same sensory particulars, nominalists maintain that the data on which knowledge are formulated are private and vary from inquirer to inquirer" (Forster, 2011: 158). This is not a solution to the problem of knowledge, but rather expresses the problem that the nominalist faces. In general, the privacy of these sensations frames the problem of knowledge for the nominalist.

While I agree with the general way in which Forster describes the nominalist's view of knowledge, I hold that Peirce makes the point about the *privacy* of sensory experience in an even more forceful manner. To support this claim, I will now show that Peirce holds that our sensations are *radically* private. The reason to underscore the sense of radical privacy is that it

exposes the deep connection between the nominalist's view of knowledge and the epistemic individualism that underlies it in a lucid way.

2.1.1 Sensations: Why they are Radically Private

In the review of "*Fraser's The Works of George Berkley*," Peirce maintains that, "The matter of sensation is altogether accidental" (W2: 470). There, Peirce challenges nearly the entire tradition of nominalism, though, as I mentioned, he places a special focus on the British empiricists.

Peirce defines *sensation* in a particular way: "We shall do well to reserve the word *sensation* as the name for the element introduced into consciousness," and he further says that sensations are "entirely private and peculiar" (added emphasis; W3: 49). Peirce appears to use the words *observation* and *sensation* to mean the same thing (W3: 57). Observations, says Peirce, introduce "the new elements of belief" (W2: 60).⁴⁶ According to Peirce, sensations or observations are private, unique, and non-repeatable. On this matter, Peirce writes,

...Observations are for every man wholly private and peculiar. And not only can no man make another man's observations, or reproduce them; but he cannot even make at one time those observations which he made at another time. They belong to the particular situation of the observer, and the particular instant of time (W3: 42-43).

To provide a simple illustration, Peirce considers the ink-stand on the table, as seen by himself and a friend. Each of them observe the ink-stand from different angles, at different times, and with different sensory organs, yet they agree that the same object is there. "The fact in which we agree that there is an ink-stand there, is what we conclude from the different appearances which we each severally observe. We may change places and still we shall fail to get each other's observations; for the difference of time then comes in" (W3: 42). In addition to this simple

⁴⁶ I presume that Peirce would say the same thing about sensations: that they introduce new elements of belief. In fairness to Peirce, the statements I have quoted appear in some of the unpublished manuscripts that lead up to "The Fixation of Belief." As he often does, Peirce uses his unpublished writings to explore various ideas. However, when it comes to the nature of sensations, the account I am providing is – or is close to – his considered position on the matter.

example, Peirce cites a number of cases from the history of astronomy where scientists, having made separate observations and with different instruments, yet arrived at the same conclusion – say, about the rotation of Earth (W3: 42; W3: 273). In expressing the non-repeatability of observations or sensations, Peirce claims that they are *sui generis*, where this term stands for something that is its own or distinct kind (W2: 226; W3: 48). Since such sensations or observations are *sui generis*, according to Peirce, he maintains that there would be no way for the nominalist to gain knowledge on their basis. That is, the accidental and radically private character of sensations disqualifies them from serving as a foundation for knowledge.

Although sensations are *sui generis* and radically private, according to Peirce, we should not lose sight of his claim that sensations can contain “precisely the same information” (W2: 470). Through communal inquiry, Peirce maintains, inquirers can filter out what is accidental about sensation and gain information. Peirce illustrates this process of communal inquiry as follows:

Suppose two men, one deaf, the other blind. One hears a man declare he means to kill another, hears the report of the pistol, and hears the victim cry; the other sees the murder done. Their sensations are affected in the highest degree with their peculiarities. The first information that their sensations will give them, their first inferences will be more nearly alike, but still different...their final conclusions remotest from sense, will be identical and free from the one-sidedness of their idiosyncrasies (W2: 468-469).

In the context in which Peirce offers this illustration, he is regarding communal inquiry as a process, and the upshot of it is what he refers to as the final opinion or the conclusion that the community would reach after carrying out this process as far as it could go. Sensations or observations, according to Peirce, are the cause or origin of our thoughts, but they go through an inferential and corrective process, which refines and informs them. According to Peirce, the initial thoughts that spring from our sensations are individualistic and private, but they go

through such a process and end up being communal. That is, as Peirce puts it, they are tending toward the final opinion (the fixation of belief, as he would later call it).

So far, I have sketched what Peirce regards as the nominalist's view of knowledge, relying partly on Forster's account to fill in some of the essential details. I pointed out the problem that the nominalist faces in having to appeal to radically private sensations as the means to knowledge. According to Peirce, since sensations are *sui generis*, they cannot provide a foundation for knowledge. The nominalist cannot look to communal inquiry for a way around this predicament because the nominalist subscribes to epistemic individualism. In the next section, I will turn to Peirce's treatment of the nominalist's conception of reality, since that conception makes it clearer why the nominalist must face the problem of skepticism. After I take up this matter, I will examine the nominalist's conception of the mind and show why it leads to the dilemma of epistemic individualism.

2.1.2 The Nominalist's Conception of Reality

Almost invariably, whenever Peirce turns to the topic of reality he contrasts his view with that of the nominalist's conception (see: W2: 165; W2: 239; W2: 467; W3: 271; EP2: 343). In its simplest formulation, though there are details to add, the nominalist's conception holds that reality refers to the extra-mental source or origin of sensations. Since we are already familiar with the nominalist's view of knowledge, it makes sense that this conception holds that reality is the cause of our sensations, and that reality, according to the nominalist, can be altogether outside of our minds.⁴⁷ This conception assumes the relation between the subject of the sensations, on the one hand, and an external reality, on the other. Such a division forces the

⁴⁷ As Peirce sees it, the nominalist's conception of reality primarily relates to concrete individual things. There is the further question of what sort of reality the mind has, according to the nominalist. The question is one that the nominalist must eventually face, though it is not a question that I will take up in this exposition of how Peirce views the nominalist's conception of reality. I would like to thank Gerry Callaghan for asking me to consider this matter.

nominalist to encounter the problem of there being a gap between the subject and real things – arguably, an unbridgeable gap.

To support the exposition so far, consider Peirce’s description of the nominalist’s conception of reality in the following passage:

Where is the real, the thing independent of how we think it, to be found? There must be such a thing, for we find our opinions constrained; there is something, therefore, which influences our thoughts, and is not created by them. We have, it is true, nothing immediately present to us but thoughts. These 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 (W2: 468).

In a more picturesque image, Peirce discusses two different standpoints on the question of reality in terms of a river. He claims that the nominalist’s conception is akin to the spring or the origin, while his view of reality is like the basin, where experience, reasoning, and thinking are heading.

Using this image, Peirce lays out the nominalist’s conception as follows:

...The spring, and origin of thought. It is said that all thoughts are ultimately derived from sensations; that all conclusions of reasoning are correct only so far as they are true to the sensations; that the real cause of sensation therefore, is reality which thought presents. Now such a reality, which causes all thought, would seem to be wholly external to the mind—at least to the thinking part of the mind, as distinguished from the feeling part; for it might be conceived to be, in some way, dependent upon sensations...[this was] the motive principle of nominalism...the nominalistic view emphasizes [reality’s] externality (W3: 29).

Peirce admits that the nominalist’s conception is attractive, given that there is a strong assumption in our everyday thinking that reality is external to the mind. Now in considering its allure, I must point out that Peirce is not denying that his view of reality – and I shall sketch the view out further to supply the right contrast – makes no commitment to there being an external reality. Indeed, Peirce admits that there is an external reality, but he aligns his view with the upshot or conclusion of the investigations we make into it. As for the naturalness of the

nominalist's conception, Peirce accounts for it by considering the meaning of the term reality. On this matter, Peirce writes, "'Real' is a word invented in the thirteenth century to signify having Properties, i.e., characters sufficing to identify their subject, and possessing these whether they be anywise attributed to it by any single man or group of men, or not" (EP2: 434; see: de Waal, 1998). A necessary condition for something being real, according to Peirce and this definition, is that it is independent of what you, I, or anyone in particular thinks about it. Clearly, extra-mental things that are the causes of our sensations meet this condition. However, even prior to this matter of definition, Peirce sees that the concept of reality marks a sharp contrast between reality and a fiction or figment of the mind, so that whatever is a fiction – something dependent on the imagination of a particular mind – cannot be real. The question for Peirce is whether we need to assume a view that relates only to external reality and whether that assumption is meaningful.

To spell out the previous point, the further details matter. For, Peirce goes on to claim that the nominalist's conception of reality is meaningless (W2: 239). To see this, we need to consider the following. One assumption the nominalist makes is that reality relates to an incognizable thing-in-itself, a concrete individual thing just as it is (W2: 208; W2: 469). Using Latin, Peirce sometimes refers to a *res extra animam* – a thing that transcends the mind. Thus, he writes, "the gist of all the nominalist's arguments will be found to relate to a *res extra animam*" (W2: 471). While the details are even more complex when it comes to Peirce's charge that the nominalist's conception of reality is incoherent, the simplest way to state it is that to be a concept something must be cognizable. By incognizable, Peirce notices that the prefix "in-" is, in this context, simply the negation of something possibly relating to a mind (W2: 208). But such a negation does not leave open the possibility of being a concept at all. At the risk of sounding

flippant, Peirce may bluntly ask what the nominalist could have in mind by a *res extra animam* or thing that exists just as it is. The point is not about something that happens to be out of our minds now – or even that happens to be out of all minds. Rather, the nominalist appears to be making an empty assumption since whatever it might stand for could not *possibly* relate to a mind. Without going into the particulars, in the following passage, notice the form of argumentation that Peirce takes the nominalist to be using: “The word ‘man’ is true of something, that which ‘man’ means is real. The nominalist must admit that man is truly applicable to something; but he believes that there is beneath this a thing in itself, an incognizable reality. His is the metaphysical figment” (W2: 239). In a more straightforward statement that makes the same point, Peirce maintains that, “The nominalist, by isolating his reality so entirely from mental influence as he has done, has made it something which the mind cannot conceive” (W2: 481). Its inconceivability, according to Peirce, makes it so that the nominalist’s view of reality is meaningless. Accordingly, Peirce insists that reality must be cognizable.

However, this last assumption about reality having to be cognizable leads to the following puzzle: how can reality be cognizable, on the one hand, but be independent of what any particular mind thinks about it, on the other? It seems that a view of reality may be able to meet one condition but not the other. This is where Peirce takes his view of reality to prove its merits, for he claims that the conclusion or verdict of the community would be independent of any particular mind but, crucially, would remain cognizable. The final opinion or conclusion that the community would reach, that is, would not transcend the mind; rather, it would be the ultimate product of a corrective process. Why that should be concerns the point above about the distinction between fiction and reality. According to Peirce, “reality is independent of the

individual accidental element of thought,” while “A fiction is something whose character depends on what some mind imagines it to be” (W3: 55-56). Thus, Peirce returns to the original question concerning the meaning of reality: “what do we mean by the real? It is a conception which we must first have had when we discovered that there was an unreal, an illusion; that is, when we first corrected ourselves” (W2: 239). Peirce envisages the community of inquirers, one generation after another, carrying out the corrective process and filtering out fictions and errors in our thought. Anchoring his view of reality in this communal and corrective process, Peirce further articulates the meaning of reality: “The real 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. Thus, the very origin of the conception of reality shows that this conception essentially involves the notion of a COMMUNITY” (original emphasis; W2: 239). Along with this corrective process, we should notice that Peirce mentions the results of all information and reasoning, which relates to the final products of the patterns of correct inference (especially abduction and induction, which are the two types of reasoning he mentions a few lines before making this statement about the very origin of the conception of reality). According to Peirce, then, reality must be cognizable, communal, and the upshot of a corrective and inferential process. Consequently, a communal inferentialist reading clarifies Peirce’s conception of reality.

To conclude this section, it is quite unlikely that nominalists trace out the consequences of their conception of reality in anything like the detail that Peirce does. There is the further question about whether nominalists would accept Peirce’s description of even his general outline of their conception of reality. However, I must set that question aside, for it would require delving into the history of philosophy in a way that is beyond the scope of this chapter. At this stage, the point I mean to underscore is that the nominalist’s view assumes that reality relates to

the origin or spring of sensation. But since that origin appears to be extra-mental, the threat of skepticism about the external world looms large. One possible assumption that may save the nominalist's view of knowledge is the conception that the mind can mirror the world, but before I turn to that conception, I need to explain the threat of skepticism first.

2.2 Skepticism

In his account of the nominalist's view of knowledge and Peirce's case against it, Forster returns to the point about how this view shows that there is a gap between the individual's sensations, on the one hand, and what those sensations are supposed to be of, on the other. According to Forster, the nominalist's view of knowledge, with its attempt to reconstruct knowledge using private sensations, results in skepticism in a rather straightforward way:

Peirce insists that the nominalist account of knowledge leads to skepticism. He argues that if, as the nominalist maintains, private experiences are the sole objects of immediate knowledge, then the claim that science yields truth about an extra-mental reality is baseless. The result, Peirce maintains, is to call the epistemic credentials of science into question and undermine the adoption of truth as even a regulative ideal (Forster, 2011: 9).

As Peirce sees it, the corrective and inferential process is one that reflects the efforts of science to discover external reality. However, by limiting their view of reality to a thing-in-itself, the nominalist, according to Peirce, assumes a conception of reality that departs from or ignores the corrective and inferential process. Setting aside the matter of truth being a regulative ideal, it is the nominalist's assumptions about an incognizable reality that creates the gulf between the subject and external reality.⁴⁸ Forster builds on the above passage by further describing the assumptions that nominalists make about truth and knowledge:

As [Peirce] sees it, nominalists frame the problem of truth in terms of a theory of knowledge informed by the metaphysical view that only individuals exist. They typically

⁴⁸ The basic point about a regulative ideal is that it is supposed to regulate or provide a standard for how we should engage in our epistemic practices. In the case of inquiry, as Misak puts it, we are "obliged to suppose" such an ideal, which holds that if we were to carry on inquiry, we would reach truth (Misak, 1991: 140). See: Thayer, 1981: 40-43; Hookway, 2002: 60; Misak, 2013: 50-52.

view knowledge as grounded in sensation and introspection and hold that any information gained through experience of this kind is to be analysed into individual sensory contents that are immediately apprehended by the mind (Forster, 2011: 157).

While I agree with Forster's assessment and his claim about the nominalist having to confront the threat of skepticism, there is an even more compelling part of Peirce's argument that would strengthen Forster's account. It is that Peirce closes off a further possible escape route for nominalists, which is their conception of the mind as being able to achieve non-inferential knowledge. By taking up this matter, we will see that Peirce's case against the nominalist's view of knowledge is quite thorough and forceful. Although, in the previous statement by Forster, he mentions that the nominalist looks to introspection, Peirce's criticism of the nominalist's conception of the mind more closely targets an assumption about a faculty of intuition. I will now examine Peirce's argument against the nominalist's conception of the mind, and then conclude the chapter with a brief section on the dilemma of epistemic individualism.

2.3 The Nominalist's Conception of the Mind

To provide an account of what Peirce says is the nominalist's conception of the mind, I will take up the relevant material from the Cognition Series, his review of "*Fraser's The Works of George Berkeley*," and his book review of James Mill's *Analysis of the Human Mind*. Nowhere does Peirce give a unified account of the nominalist's conception of the mind, so I will have to reconstruct such an account. Notwithstanding the absence of such an account in his writings, it is clear that Peirce takes his criticisms of the nominalist's conception of the mind to offer an illuminating angle on why we should reject the nominalist's view of knowledge.

Near the end of his review of "*Fraser's the Works of Berkeley*," Peirce makes the following remark: "In 1829 appeared James Mill's *Analysis of the Human Mind*, a really great nominalistic book" (W2: 485). A few years before this remark, Peirce wrote a review of this

great nominalistic book, and he claims that Mill's thinking is a prime example of "The English Doctrine of Ideas" (W2: 302). In line with the British empiricists, Mill maintains that the mind contains sensations and ideas in the form of copies or images. As I pointed out above, Peirce is eager to expose the nominalistic assumptions that he detects in what the British empiricists hold the mind to be like. Above all, Peirce targets the assumption that the mind, to gain knowledge or to relate to reality, must have ideas that are as definite and exact as extra-mental concrete individual objects. Peirce claims that Mill's theory of the mind displays this assumption and its consequences in ways that are even clearer than what we find in the works of the traditional British empiricists. On this matter, Peirce writes,

The beauty of the theory appears when we consider that it is as much as to say simply that *ideas* in *consciousness* are concrete images of *things* in *existence*. For a thing to exist, and for it to have all its characters; or for two things to exist, and for them to have all their relations of existence to each other, are not two facts, but one (original emphasis; W2: 304).

The point that Peirce is pressing is that Mill's theory of mind supposes that the mind could copy things just as they are in the world, so that the mind can function as though it were a mirror. To show that the mind contains ideas that are copies, Mill relies on an analysis of the mind. As Peirce sees it, Mill's analysis is an attempt to employ the principle of "Ockham's razor." Since there are questions about how to formulate this principle – and even whether we should attribute it to Ockham, – I will simply cite what Peirce says about it. Peirce writes, "In metaphysics, the maxim called Ockham's razor [is] to the effect that more elements must not be introduced into a hypothesis until it is absolutely proved that fewer are not sufficient" (CP 6.535). In the review of Mill's book, Peirce says,

And what is analysis? The application of Ockham's razor – that is to say, the principle of reducing the expression of the nature of things and of the mind to its simplest terms by lopping off everything which looks like a metaphysical superfluity (W2: 303).

Despite the elegance of Mill's theory of mind, Peirce cites a collection of facts and scientific evidence to challenge it, all of which aims to undermine the root assumption that the mind can mirror nature.

In presenting these facts, Peirce remarks about the naïve nominalist who is not able to see them:

...The average nominalist whom you meet in the streets, he reminds me of the blind spot on the retina, so wonderfully does he unconsciously smooth over his field of vision and omit facts that stare him in the face, while seeing all round them without perceiving any gap in his view of the world (CP 4.1).

In comparing the average nominalist to the blind spot of the retina, Peirce is alluding to the evidence he cites in the Cognition Series, where he focuses on our inability to tell which cognitions are intuitions (i.e., immediate, non-inferential cognitions that represent things just as they are in the world). There, he requests the reader to perform the following experiment:

Does the reader know of the blind spot on the retina? Take a number of this journal, turn over the cover so as to expose the white paper, lay it sideways upon the table before which you must sit, and put two cents upon it, one near the left-hand edge, and the other to the right. Put your left hand over your left eye, and with the right eye look steadily at the left-hand cent. Then, with your right hand, move the right-hand cent (which is now plainly seen) towards the left hand. When it comes to a place near the middle of the page it will disappear – you cannot see it without turning your eye. Bring it nearer to the other cent, or carry it further away, and it will reappear; but at that particular spot it cannot be seen. Thus it appears that there is a blind spot nearly in the middle of the retina (W2: 197).

In this experiment, Peirce aims to make it clear that the mind must play a role in visual experience. There is a tendency, especially in British empiricism, to regard the mind as passively recording things in the world, as though the mind were like blank paper or a blank slate. Leaving aside the question of whether that is a fair view of British empiricism, Peirce is seeking to have us become aware of how the mind cannot exactly copy external things. Thus, he writes,

It follows that the space we immediately see (when one eye is closed) is not, as we had imagined, a continuous oval, but is a ring, the filling up of which must be the work of the

intellect. What more striking example could be desired of the impossibility of distinguishing intellectual results from intuitional data, by mere contemplation (W2: 197).

In general, Peirce insists that we have no direct or immediate experience of the world as it is. Let us now consider what Peirce says about mental copies or images, and why he further argues that we do not have them.

In the Cognition Series, Peirce denies that we have what he calls an exact *image* of anything in the world. On this matter, he says, “Every possible character, or the negative thereof, must be true of such an image” (W2: 233). To borrow Peirce’s example, we are to consider whether we have an exact image of the road that we ordinarily take to our workplace. We are familiar with it and we could recognize it, but being able to represent the road in all its detail is something that we cannot do. Peirce writes, “It is apparent that no man has a true image of the road to his office, *or of any other real thing*. Indeed he has no image of it at all unless he can not only recognize it, but imagines it (truly or falsely) in all its infinite details” (added emphasis; W2: 233). Peirce further states the following: “I will now go so far as to say that we have no images even in actual perception” (W2: 235). In some cases, given our anatomy and physiology, we can be sure that we have no images, the formation of which would require bypassing the influence of the mind. For example, consider the nerve-points in the eye (W2: 198). If the mind had no influence on our visual experience, then we should expect, given our physiology and anatomy, that things would appear pixilated. Using cases of this variety, Peirce deploys a further argument that he takes to be decisive evidence to undermine the nominalist’s conception of the mind. Peirce writes,

But the conclusive argument against our having any images, or absolutely determinate representations in perception, is that in that case we have the materials in each such representation for an infinite amount of conscious cognition, which we yet never become aware of (W2: 236).

Peirce's argument could apply, say, to the previous example of the representation we have of the road to our workplace. In this argument, Peirce is attacking the assumption that we have exact images by maintaining that there could be *no meaning* to the assumption about an infinite amount of conscious cognition, which never reaches the level of our awareness. The argumentation is similar to that of Peirce's attack on the supposition that we can deem some things incognizable, since, in the above argument, no one can become aware of the infinite details. Peirce maintains that the argument exposes that the assumption about images is nonsense. Overall, it is clear that Peirce takes his case to show that the nominalist's conception of the mind is spurious.

2.3.1 The Dilemma of Epistemic Individualism

In light of the preceding sections, I suggest that Peirce's case against the nominalist's view of knowledge forces the nominalist to confront a dilemma. In formulating it, I mean to underscore the connection to epistemic individualism, since the nominalist's conception of the mind appeals to the individual's mind as the source of non-inferential knowledge. Given the combination of assumptions about the individual and non-inferential knowledge, I maintain that a communal inferentialist reading uncovers Peirce's strongest reasons against the nominalist. As for the dilemma, it takes the following form:

The nominalist must believe that the individual's mind is capable of gaining non-inferential knowledge of concrete individual things, *or* the nominalist must concede skepticism.

The reason to frame the dilemma in this way is: (1) Peirce rules out sensations as the basis of knowledge since sensations are radically private or *sui generis*; (2) Peirce closes off the nominalist's possible escape route from skepticism, which is to maintain that the mind could non-inferentially mirror reality. As I see it, the nominalist is likely to agree with Peirce that the

point about the privacy of sensations raises the threat of skepticism in an obvious way. But the nominalist is likely to assume the conception of the mind as being able to gain non-inferential knowledge. To be clear, Peirce insists that this conception is erroneous, so that the nominalist can no longer reasonably hold this view; and hence, the nominalist must face the choice of assuming a false conception of the mind, *or* having to admit skepticism. The reason for having to make that admission is that closing off the one option concerning the nominalist's view of the mind returns the nominalist to having to face the gulf between sensations and reality. As Forster puts it, such a gap leads the nominalist's view of knowledge to skepticism. In both the cases of the nominalist's views of knowledge and the mind, Peirce is aiming to show that they are spurious, but also that we should accept his positive proposals on the nature of the mind and knowledge. To put it briefly, given the above evidence I have considered, Peirce maintains that the mind is fundamentally inferential; and Peirce further maintains that the road to knowledge is inferential and communal, as we saw in the account of Peirce's view of reality. Overall, then, I maintain that Peirce's communal inferentialism illuminates his argumentative strategy in his case against the nominalist's view of knowledge.

2.4 Conclusion

In this chapter, using communal inferentialism, I assessed Peirce's case against the nominalist's view of knowledge. In the first section, partly relying on Forster's treatment, I provided an account of the nominalist's view of knowledge and underscored Peirce's claim about sensations being radically private. In the second section, I took up the nominalist's view of reality and the threat of skepticism about the external world. In the third section, I considered how the nominalist might escape the threat of skepticism by assuming a conception of the mind as being able to mirror the world. Far from being an escape route, I showed that Peirce's case forces the

nominalist into the dilemma of epistemic individualism, which reanimates the problem of skepticism for the nominalist in quite a formidable way.

3 CHAPTER THREE

“The Fixation of Belief”: A Communal Inferentialist Reading

The problem becomes how to fix belief, not in the individual merely, but in the community (“The Fixation of Belief,” 1877).⁴⁹

The purpose of this chapter is to show that a communal inferentialist reading of Peirce’s influential essay “The Fixation of Belief” (henceforth: “Fixation”) provides us with the tools to resolve the most controversial aspects of that essay. In view of several attempts to disentangle some longstanding interpretive difficulties in the “Fixation,” the reading I offer supports the claim that Peirce is again tackling the problem of epistemic individualism. Starting from his Cognition Series to the “Fixation,” a period of about a decade, Peirce increasingly sees the consequences of our being in the following predicament: we are unable to ‘look beyond our beliefs to non-mental facts’ (to borrow Robert Meyer’s apt description). In the “Fixation,” Peirce develops a theory of inquiry where he aims to describe and clarify *the method of scientific investigation*, which he claims is the only method that can resolve a problem at the heart of the “Fixation.” That problem is the following: how can we fix belief not just in the individual but also in the community, however much that community might grow? I will argue that a communal inferentialist reading of the “Fixation” allows us to see how Peirce manages to resolve this problem.

However, the reading I offer must compete with an interpretation of the “Fixation” that appears in Thomas Short’s “Peirce on the Aim of Inquiry: Another Reading of the ‘Fixation’” (2000). In that article, Short claims that the “Fixation” requires a new interpretation to explain

⁴⁹ W3: 250.

even the most central ideas of the “Fixation.” Short endorses an angle of interpretation that he admits is likely to seem odd at first. According to Short, no one has been able to reconstruct the argument from the “Fixation” for the simple reason that Peirce is there not seeking to make an argument at all. Rather, instead of providing an argument, Peirce intends for us to *see* (in what Short calls an *experiential* sense of seeing) the force of what Peirce does in the “Fixation.”

According to Short, this angle of interpretation resolves two longstanding difficulties: (1) why Peirce selects for criticism the non-scientific methods of fixing belief and (2) why Peirce says that the aim of inquiry is to fix belief, but then he espouses the method of scientific investigation, which seems to postpone such fixation indefinitely. While this reading is innovative, I will defend the position that Short’s interpretation is ultimately unconvincing and that Peirce, indeed, intends to make an argument in the “Fixation.” I will aim to show that a communal inferentialist reading explains the problem at the heart of the “Fixation” and resolves both difficulties, (1) and (2).

3.1 The “Fixation”: The Aim of Inquiry

“The Fixation of Belief” is the first of six papers that comprise the Illustrations of the Logic of Science essay series (1877-78), which Peirce wrote about a decade after the Cognition Series (1868-69). A significant difference between the two essay series is Peirce’s stress on his theory of inquiry in the Illustrations Series. In particular, Peirce defines *inquiry* as a struggle to escape doubt and to regain belief, a struggle that originates in surprise and real doubt (W2: 247). Given the ingredients of belief and doubt, many commentators aptly refer to Peirce’s belief-doubt theory of inquiry (see: Johanson, 1972; Haack, 1983: 242; Misak, 1991: 49).⁵⁰ “How to Make

⁵⁰ More specifically, as Misak puts it, “Peirce characterizes the path of inquiry as follows: belief–surprise–doubt–inquiry–belief. It is worth reminding ourselves that surprise is what originates doubts and is the spark of inquiry. For more details, see Chapter One. There, I discuss the role of surprise when I critically assess the views of Meyers and Haack.

Our Ideas Clear” is the companion piece to the “Fixation,” and it provides an early statement of Peirce’s pragmatism, where he relies on his theory of inquiry to spell out the meaning of our concepts. In “How to Make Our Ideas Clear,” Peirce expresses what is known as the pragmatic maxim. In Chapter Four, I shall take up Peirce’s pragmatic maxim, so I will refrain from considering its details until then. However, the reason I mention it now is that, to gain a handle on what Peirce is seeking to do in the “Fixation,” it helps to consider his response to an initial objection to his central claim about the aim of inquiry. Let us turn to the objection, and then outline Peirce’s reply.

In the “Fixation,” Peirce claims that the aim of inquiry is the fixation of belief, but it seems odd to describe the aim in this way since it is plausible to say that the aim is truth. That is, even if we are considering beliefs, it is a true belief we pursue, not a fixed belief (or not merely such a belief). Accordingly, the objection holds that the fixation of belief is not enough to satisfy us, since we further aim at truth. In the “Fixation,” why does not Peirce instead claim that truth is the object of inquiry? Peirce anticipates the objection, and he writes the “Fixation” and “How to Make Our Ideas Clear” with the intent of answering it. After all, he considers the method of scientific investigation to be the method that would carry us to the truth at least in the indefinite long run (see: W3: 254; W3: 272). Peirce insists that our concepts or notions must have some conceivable practical effects to be meaningful, and the one such effect that he attaches to the concept of truth is the fixation of belief. Seen in this light, then, we know why Peirce does not begin by stating that the aim of inquiry is truth. Consequently, to press the point, Peirce may respond to the objector by asking what the difference could be between the fixation of belief and truth. On the surface, it seems that there must be a difference, since a fixed belief may have that status for some reason besides its being true. That is, Peirce’s approach appears open to the

charge that such fixation could result from accidents or conditions apart from truth. For example, Misak begins her account of Peirce's "Fixation" by posing the initial objection that "a 'belief'-freezing pill" may be able to fix belief, though surely we would not consider an eternally "frozen" belief to count as what we mean by the aim of inquiry (Misak, 1991: 46). Perhaps less strange than the example of a belief-freezing pill, we might ask why the fixation could not result from, say, a regime of extreme brainwashing, beginning from youth. As it turns out, Peirce is ready to answer objections of this sort too. He maintains that the only beliefs that would remain fixed are those that inquirers following the method of scientific investigation would arrive at if they were to carry out that method as far as it could go. One hypothesis of this method is that there is an external reality, which is not of our own making, but that constrains our thinking and gives rise to sensations. But Peirce does not take the method to stop at our sensations, which are radically private. The method involves carrying on with the communal and inferential process that is so much a part of the method of scientific investigation. The conclusion of such a process, according to Peirce, would have to survive all possible reiterations of the process and would be the fixation of belief. In brief, Peirce maintains that the method of scientific investigation is the most rigorous method, and the status of such fixation owes to the method of scientific investigation that sustains it. Warding off this objection and others of this sort requires a fuller exposition of Peirce's theory of inquiry and the inferential commitments he makes in the "Fixation," which is what I turn to now.

3.2 The Object of Reasoning

Peirce opens the “Fixation” with a set of illustrations of the art of reasoning.⁵¹ From the outset, he is seeking to track its course of development starting from the Romans to the scientists and logicians of his own day who tackle the question of how to formulate a logic of science.

According to Peirce, the history of logic provides lessons for the student of the art of reasoning, especially revealing tendencies to avoid. To offer one example, Peirce says that the scholastics appeal to the method of authority as their ultimate standard of reasoning (W3: 242).⁵² However, as he expects it to be clear to his readers, such a standard cannot satisfy our inquiries, as history shows that scholastic authorities were often wrong or unreliable.

Based on failures of this sort, the following questions require our focus, according to Peirce: what assumptions about reasoning should we make if we are to master the art of reasoning? How are we to rely on reasoning in the search for truth (or fixed belief)? In response, Peirce provides a statement of what he says is the standard of good reasoning and further says that we need to develop logical habits. On the first point about reasoning, Peirce writes:

The object of reasoning is to find out, from the consideration of what we already know, something else which we do not know. Consequently, reasoning is good if it be such as to give a true conclusion from true premises, and not otherwise. Thus, the question of its validity is purely one of fact and not of thinking. A being the premises and B the conclusion, the question is, whether these facts are really so related that if A is B is. If so, the inference is valid; if not, not. It is not in the least the question whether, when the premises are accepted by the mind, we feel an impulse to accept the conclusion also (W3: 244).

Part of the reason to focus on the above statement is that, in the secondary literature, there is a tendency to turn to Peirce’s theory of inquiry without first laying out the inferential commitments

⁵¹ “Few persons care to study logic, because everybody conceives himself to be proficient enough in *the art of reasoning already*. But I observe that this *satisfaction is limited to one's own ratiocination*, and does not extend to that of other men” (W3: 242).

⁵² Typically, the scholastic authorities include the Bible, the Church, and Aristotle (see: W2: 195 n.2; W2: 313).

with which he begins the “Fixation.” Given this sort of gap, I hold that it is worth exploring the fundamental inferential moves that Peirce makes in the “Fixation” and considering how he makes them. It further assists our understanding of Peirce’s communal *inferentialism*. For, Peirce’s concern is to show us how logically we could reach the truth (at least how we could do that in the long run. The qualification, “in the long run,” is because we need to use probabilistic patterns of correct inference – including inductive sampling – to make empirical discoveries). Built into the method of scientific investigation, according to Peirce, are the patterns of correct inference (i.e., abduction, deduction, and induction).

There are two things to note about the last line of the previous passage, in which Peirce denies that logic depends on an impulse to accept a conclusion. First, Peirce rejects *psychologism*, the view that logical concepts, including that of validity, reduce to psychological concepts or states of the human mind.⁵³ In an “Unpsychological View of Logic” (1865) and his 1866 Lowell Lectures, Peirce disputes the psychologistic ideas of those he refers to as the “anthropological logicians” (W1: 305; W1: 361). As that label suggests, Peirce contends that their logical standard is one that appeals to degrees of human conviction or credence. Given the object of reasoning as laid out above, it is clear that their standard can diverge from the truth. Accordingly, the anthropological logicians adopt a standard that deviates from the object of reasoning, which Peirce claims exposes a severe – if not, fatal – flaw of their view. Hence, the problem such logicians face is akin to the problem that the scholastics must confront in their assumption that certain forms of authority impose the standard of correct reasoning. Second, and

⁵³ In “Peirce’s Supposed Psychologism” (1999), Kasser argues that Peirce’s statements in the “Fixation” are strong evidence that Peirce maintained his opposition to psychologism throughout his philosophical writings, though some commentators raise doubts about whether Peirce was as uniform in his rejection of this position as he often claimed to be. Kasser dispels the idea of Peirce’s *supposed* psychologism, and though the case is beyond the scope and theme of this chapter, I agree with Kasser’s assessment.

relatedly, Peirce points out that, as “logical animals,” we tend to be more optimistic in our thoughts and beliefs than good reasoning would warrant (W3: 244). According to Peirce, our tendency to be excessively confident in our own reasoning powers often makes it difficult to aspire to the object of reasoning. We tend to slide into wishful thinking, to “see” patterns in things that do not naturally display them, to confirm our existing beliefs (in spite of countervailing evidence), and so forth. Seen in this light, how does Peirce respond to this difficulty? For, now a large concern comes up: how are we to master the art of reasoning – and he takes that to be our goal – if human nature tends to stand against such an aim or remains uncooperative? On the surface, Peirce imposes a logical standard that we may not be able to satisfy, given our ordinary habits and way of going about things.

3.2.1 Logical Habits and Guiding Principles

Peirce’s answer to the above difficulty concerns the further inferential commitments he makes in the “Fixation.” His solution combines two strands of his thinking. First, Peirce argues that, to meet the object of reasoning, we need to follow what he calls guiding principles of inference (sometimes he refers to them as leading principles) (W3: 245). Second, in response to our tendency to drift from the patterns of correct inference, we need to develop logical habits. These strands tie together, as the logical habits that concern Peirce, on this matter, are those that would have us habitually adhere to good guiding principles. However, to appreciate the connection, we first need to know what a guiding principle is.

In the “Fixation,” Peirce connects these strands and defines a guiding principle of inference as follows:

That which determines us, from given premises, to draw one inference rather than another, is some habit of mind, whether it be constitutional or acquired. 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. The particular habit of mind which governs this or that inference may be formulated in a proposition whose truth depends on the validity of the inferences which the habit determines; and such a formula is called a *guiding principle* of inference (original emphasis; W3: 245).

According to Buchler, the simplest way to express what Peirce means is that “a leading principle is a rule of inference” (Buchler, 1940: 192). While Peirce, in the “Fixation,” does not provide a clearer definition of a guiding principle of inference than the one above, we can use an example to grasp his basic point. Consider the classic litmus test. If I dip a piece of litmus paper into a solution, and the paper turns pink, then I draw the conclusion that the solution is acidic. Now the habit of mind that governs my reasoning is a guiding principle of inference. Guided in this manner, I form the generalization that other pieces of litmus paper would turn pink if I were to put them in the solution. Over time, according to Peirce, we will develop logical habits about what would happen in cases like those that we find in the classic litmus test.

Now Peirce notices that in practical subjects or realms, where there are “thoroughly-beaten paths,” there would be little need to catalogue the particular guiding principles of inference that belong to them (W3: 245). He observes that rarely do we drift from the guiding principles that apply to practical subjects. However, in unfamiliar subjects, we are likely to get lost and disoriented “like a ship in the open sea, with no one on board who understands the rules of navigation” (W3: 246). Since logic tends to abstract from practical subjects, there is the need to understand and use the guiding principles proper to it.

Peirce’s chief concern in the “Fixation” and Illustrations Series is with the guiding principles of inference that apply to the habits and classes of logical inference (see: CP 2.446). Peirce aims to make sure that we form good habits of logical inference. A few years after the “Fixation,” in 1880, Peirce writes, “The habit is logically good provided it would never (or in the

case of a probable inference, seldom) lead from a true premiss to a false conclusion; otherwise it is logically bad” (CP 3.163).⁵⁴ Again, in 1880, Peirce maintains the following:

A habit of inference may be formulated in a proposition which shall state that every proposition *c*, related in a given general way to any true proposition *p*, is true. Such a proposition is called the *leading principle* of the class of inferences whose validity it implies. When the inference is first drawn, the leading principle is not present to the mind, but the habit it formulates is active in such a way that, upon contemplating the believed premiss, by a sort of perception the conclusion is judged to be true (original emphasis; CP 3.164).

Now Peirce’s chief concern is with the guiding or leading principles that apply to types, patterns, or classes of logical inference. He aims to classify logical inferences in terms of a familiar division. There is explicative or necessary inference (namely, deduction), on the one hand, and ampliative or probabilistic inference (namely, induction and abduction), on the other.⁵⁵

3.2.2 Returning to Peirce on the Patterns of Correct Inference

In Chapter One, while spelling out Peirce’s communal inferentialism, I took up Peirce’s account of the three patterns of correct inference. I now return to and expand on the significant points I made about that account because, in the context of the “Fixation,” Peirce takes the method of

⁵⁴ Concerning Peirce’s penchant for peculiar spellings, he sometimes prefers “premiss,” as we can tell from the above statement. Sometimes there are advantages to such spellings, as they can eliminate possible ambiguities, or a lack of clarity. In philosophy, Peirce maintains that are good reasons to use terms that have unique spellings (akin to how biologists use Latin terms). He advances such a view under what he refers to as *the ethics of terminology*. Peirce’s peculiar use of *pragmaticism* is a case in point (EP2: 334).

⁵⁵ Peirce’s writings are not easy to expound. In this vein, his account of the leading or guiding principles of inference depends on several logical assumptions or terms, which tend to reflect Peirce’s way of viewing and putting things. A long, but useful passage from 1880 that clarifies the terms *belief*, *inference*, and *leading principle* is the following. “A cerebral habit of the highest kind, which will determine what we do in fancy as well as what we do in action, is called a *belief*. The representation to ourselves that we have a specified habit of this kind is called a *judgment*. A belief-habit in its development begins by being vague, special, and meagre; it becomes more precise, general, and full, without limit. The process of this development, so far as it takes place in the imagination, is called *thought*. A judgment is formed; and under the influence of a belief-habit this gives rise to a new judgment, indicating an addition to belief. Such a process is called an *inference*; the antecedent judgment is called the *premiss*; the consequent judgment, the *conclusion*; the habit of thought, which determined the passage from the one to the other (when formulated as a proposition), the *leading principle*” (original emphasis; CP. 3.160).

scientific investigation to rely on the patterns of correct inference. Furthermore, an account of these types of inference is crucial to the communal inferentialist reading of the “Fixation” I offer. As I noted in Chapter One, Peirce’s object in seeking to articulate the logic of science is to provide us with a clear grasp of the types of reasoning that do – or would – enable us to make empirical discoveries. While deduction does play a role in his account of the logic of science, Peirce tends to focus on abduction and induction. Let us take up these types of inference in the order and manner that Peirce presents them.

Given that the world is likely to surprise us in many ways – since we (very likely) lack intuitive faculties, and hence need to *learn* about things through experience and reasoning – Peirce begins with *abduction*.⁵⁶ In abduction, we propose a hypothesis that aims to explain an anomaly or surprise. In “On Sundry logical Conceptions” (1903), Peirce offers the following direct statement of what abduction is and is supposed to do: “The whole operation of reasoning begins with *Abduction*, which is now to be described. Its occasion is *surprise*. That is, some belief, active or passive, formulated or unformulated, has just been broken up. It may be in real experience or it may equally be in pure mathematics...” (original emphasis; EP2: 287). Notice two things about this statement. First, to be surprised, we must already have some original beliefs (some of them may be prejudices).⁵⁷ The very idea of a surprise assumes that there must be a violation of our expectations. Second, Peirce takes abduction to be primary, which means that the general inferential process must begin with it. Sometimes Peirce cast his view in terms of “the inferential processes in the three stages of inquiry,” where the stages have the following

⁵⁶ Peirce’s argument against the existence of intuitive faculties is the theme of “Questions concerning Faculties Claimed for Man” (1868). I examined his argument in Chapter One. The point above is that, lacking such faculties, there are no means of direct or immediate knowledge. Rather, to learn about the world, we at least need to rely on reasoning. Thus, Peirce relies on the patterns of correct inference to show how we could make intellectual progress.

⁵⁷ See Chapter One on the topic of prejudices. There, I discussed Peirce’s case against Cartesian individualism and its attempt to remove prejudices all at once. I further discussed Peirce’s proposal for how to engage in a communal and corrective process that aims to remove prejudices.

order: the abductive, deductive, and inductive stages (CP 2.760). As a type of inference, an abduction has the status of a conjecture or guess: “abduction, although it is very little hampered by logical rules, nevertheless is logical inference, asserting its conclusion only problematically or conjecturally” (CP 5.188).⁵⁸ An abduction is *suggestive*, Peirce says, in that it proposes a hypothesis to account for a surprise, but does not aim to verify or justify the hypothesis (CP 7.218).

In his writings from the early 1900s, Peirce makes sure that we see that abduction is a pattern of inference and that we can know what the rational grounds are for it. Put briefly, Peirce holds that abduction takes the following form:

The surprising fact, C, is observed;
But if A were true, C would be a matter of course,
Hence, there is reason to suspect that A is true (CP 5.189).

Notice that the conclusion only maintains that there is reason to suspect that A is true, not that A is true, not that there is reason that A is true. An abduction continues to have the status of a conjecture. As for its rational grounds, Peirce makes an argument that I will present but will not evaluate, since it would take us too far afield. The core of the argument holds that, since, over time, we are likely to become better at making correct guesses – and since much time has passed – we are likely to be quite good at making abductions. Given this development, Peirce says an abduction is like the *flash of insight* – say, in the context of discovery – though he concedes that such a capacity is fallible (see: CP 5.181; CP 5.604). It is nothing like a purported intuitive

⁵⁸ By *problematically*, Peirce is alluding to Kant’s theory of judgement. A judgement that is problematic takes the following form: “*possibly*, Gs are Fs” (as opposed to assertoric judgements that are of the form “*actually*, Gs are Fs.” An abduction takes the status of a hypothesis or conjecture. Accordingly, one regards the hypothesis of an abduction as possibly being true, but does not assert that it is actually true. However, Peirce provides the following comment that helps to be more exact about what he takes the word to mean. “The presumptive conclusion is accepted only *problematically*, that is to say, as meriting an inductive examination” (added emphasis; CP 2.786).

faculty, which is supposed to yield non-inferential and infallible knowledge. Rather, the ingenuity we tend to have for coming up with good – or worthwhile – abductions likely stems from millennia of animal adaptations and learning. Based on this, Peirce takes the upshot of the consideration about the grounds of abduction to mean the following. If we were to continue making a series of abductions or carrying out the process, we would come up with sufficiently *explanatory* abductions – eventually.

Deduction is easier to characterize, and so I shall be briefer in treating it. Peirce takes deduction to be necessary reasoning that does not add new information (W1: 362; W2: 215). That is, deduction is explicative, not ampliative (EP2: 443). When performed correctly, deduction tends to be compulsive, as it forces us to concede the conclusion it reaches. In the context of the logic of science, Peirce presses deduction into the service of what helps us to make prediction that cohere with the hypothesis. That is, the predictions are ones that closely relate to the previously made abductions. Peirce sees deduction as having the further instrumental function of helping us to make predictions that are worth both focusing on and further testing: “deduction...adds nothing to the premises, but only out of various facts represented in the premises selects one and brings attention down to it” – it is a “logical formula for paying attention” (W3: 337-338). That is, in the logic of science, deduction aids us in our effort to arrive at predictions that cohere with the original abductions. Lastly, we need to test the hypotheses and predictions using the final pattern of correct inference: induction.

In “Deduction, Induction, and Hypothesis” (1878), the final paper of the Illustrations Series, Peirce defines *induction* as follows: “Induction is where we generalize from a number of cases of which something is true, and infer that the same thing is true of a whole class. Or, where we find a certain thing to be true of a certain proportion of cases and infer that it is true of the

same proportion of the whole class” (W3: 326). Induction is a sampling process, according to Peirce, where we take samples in the attempt to reach a generalization that represents the real ratio about the things (or properties of the things) we are investigating. For example, if we are cargo inspectors searching ships carrying imported coffee beans, we may be able to take a few large samples from each ship and arrive at a generalization about the origin of the beans (CP 1.67). Of course, we may make mistakes due to practical constraints. However, it is even more significant that induction is a probabilistic type of inference, which cannot provide a guarantee in a given case or set of cases. Peirce’s major claim about induction is that, if we were to carry on induction, there would be a time when we represent the real ratio. Put simply, Peirce holds that, “induction seeks facts” (CP 7.218). In general, the hypothesis we arrive at in an abduction will fail to stand up to testing: “We cannot ordinarily hope that our hypothesis will pass through the fire of induction, absolutely unmodified” (CP 7.216). Accordingly, we will have to begin the general inferential process – abduction-deduction-induction – over and again. However, when it comes to the grounds for induction, Peirce argues that its success lies in how it would have to yield truth (or closely approximate the truth) in the long run. And on that point, the central ground he cites concerns the relationship between the community and the inductive process.

I will now take a closer look at the tie between sociality and logicity. It supports a communal inferentialist reading of the “Fixation” and other papers in the Illustrations Series. The connection also makes it clearer why we should expect induction to postpone the fixation of belief. It thus provides the material to meet the longstanding interpretive difficulty that scholars note about why Peirce adopts the method of scientific investigation, but why that method often leads to the indefinite postponement of fixed belief.

3.2.3 Peirce's Socially Rooted Logic: An Unlimited Community

Based on Peirce's account of induction, there is the need continually to take samples to move towards a representative generalization or a real ratio. In "The Doctrine of Chances" (1878), the third paper in the Illustration series, Peirce argues that, "Logic is rooted in the social principle" (W3: 284). To carry out probabilistic patterns of correct inference, we are to identify our interests, as logical beings, with the interests of "an unlimited community," that is, "the community that may last beyond all assignable date" (W3: 285). According to Peirce, we already have what he refers to as logical sentiments, but the highest such sentiments are those that would identify with the community, however much that community might grow. As Peirce states, "our interests shall not be limited. They must not stop at our own fate, but must embrace the whole community. This community, again, must not be limited, but must extend to all races and beings with whom we can come into immediate or mediate intellectual relation" (W3: 284). In spelling out the idea of an unlimited community, Peirce makes a connection to our epistemic aims. He holds, "And that ideal perfection of knowledge by which we have seen that reality is constituted must thus belong to a community in which this identification is complete" (W2: 271). Peirce denies that there is any guarantee that we could achieve such knowledge, but he does commit himself to the claim that progress is through this communal and inferential process – that is, in short, his communal inferentialism. However, along with there being no guarantee of success, Peirce concedes that there could be indefinite postponement of the ultimate settlement of belief (W2: 469).

By way of anticipation to an interpretive difficulty regarding the "Fixation," Peirce must concede that the process could lead to indefinite postponement because of the nature of induction. Notice that there is no definite number of such samples that we need to take for a

given subject matter. Furthermore, we may have to go through indefinite iterations of the inferential stages of inquiry to be in a position to succeed in induction. According to the nature of probabilistic inference, Peirce openly admits that the next such inference or set of samples we make could overturn what we regard as our most explanatory hypotheses. There is no reason against the possibility that we would need to take further inferences or samples to reach a true conclusion or one that is fixed.

3.3 Fixing Belief in the Community

The previous discussion of the unlimited community segues into Peirce's remarks about the community in the "Fixation." If we connect the above material concerning inference to the material in this section, I maintain that we have a communal inferentialist reading of the "Fixation" that can illuminate many of the key assumptions of that essay and that can resolve the interpretive difficulties surrounding it. I briefly turn now to Peirce's account of inquiry, and then take up the central problem concerning fixing belief in the community.

3.3.1 Inquiry: The Struggle to Escape Doubt

In relation to the discussion about the object of reasoning, Peirce maintains that, "A moment's thought will show that a variety of facts are already assumed when the logical question [about what the object of reasoning is] is first asked. It is implied, for instance, that there are such states of mind as doubt and belief" (W3: 246) and that there is a passage or transition between them. The reason that Peirce draws attention to doubt, belief, and the passage between them is that they are the components of his theory of inquiry, where he defines inquiry to be the struggle to escape doubt and return to belief: "I shall term this struggle *inquiry*" (original emphasis; W3: 247). According to Peirce, we can appreciate what a belief is by noticing that it provides us with a feeling of conviction, but also that a belief is dispositional (W3: 363). In a state of doubt, Peirce

holds that we feel irritation and dissatisfaction. A state of doubt lacks the habits of action or readiness to act that is distinctive of belief. When in doubt, we are in an erratic state. However, without real doubt, Peirce argues that there can be no inquiry, since there is no such struggle from doubt towards belief. In “The Doctrine of Chances,” it makes sense that Peirce says the following: “the only cause of our planting ourselves on reason is that other methods of escaping doubt fail on account of the social impulse,” and he asks “why should we wonder to find social sentiment presupposed in reasoning” (W3: 285). In that part of the paper, to be clear, Peirce is recalling his motivation in the “Fixation” for adopting the method of scientific investigation. As it turns out, the method of scientific investigation relies on the patterns of correct inference, so that it could attain what Peirce considers the object of reasoning.

3.3.2 A Central Problem: Fixing Belief in the Community

Peirce motivates a chief problem of the “Fixation” by first what he refers to as the method of tenacity. Tenacity is mostly about clinging to existing beliefs and shunning whatever might cause doubt. The tenacious individual is, as Peirce says, similar to the proverbial ostrich that buries its head in the sand when in danger (W3: 249). The danger of doubt is what tenacity is seeking to escape. Tenacity is, as I will show in Chapter Four, an extreme form of epistemic individualism, since it tenacity aims to preserve the beliefs that the individual happens to have and to treat the beliefs as though they are fixed. However, it does not seem that the individual, especially in having dealings with others, could continue to maintain tenacity over a long period. In introducing a central problem of the “Fixation,” Peirce writes,

But this method of fixing belief, which may be called the method of tenacity, will be unable to hold its ground in practice. The social impulse is against it. The man who adopts it 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. This conception, that another man’s thought or

sentiment may be equivalent to one's own, is a distinctly new step, and a highly important one. It arises from an impulse too strong in man to be suppressed, without danger of destroying the human species. Unless we make ourselves hermits, we shall necessarily influence each other's opinions; so that *the problem becomes how to fix belief, not in the individual merely, but in the community* (added emphasis; W3: 250).

When Peirce asks whether "the resolution of my *own* doubt is more my object in an investigation than the production of unanimity among others," he insists that we must observe the following:

"no sensible man will be void of doubt as long as persons as competent to judge as himself differ from him. Hence to resolve his *own* doubts is to ascertain to what position sufficient research would carry all men" (added emphasis; W2: 355). Tying these ideas together, the highly

important step that Peirce mentions is one that is decisively away from epistemic individualism.

As the social impulse grows so too do we move away from what we claim as our own as

individuals. That is, we move towards a more communal enterprise. Since the social impulse grows, according to Peirce, he is thinking of the central problem in terms of a notion of a

community that could accommodate any such growth. It is worth considering the following apt observation from Buchler: "To Peirce the scientific method represents the antithesis of

individualism. What distinguishes it from all other methods of inquiry is its cooperative and public character" (Buchler, 1940: x). Insofar as the community plays this role, it reinforces

Peirce's firm stance against epistemic individualism (see: Anderson, 1995: 103).

Peirce next considers *the method of authority*, seeking to see whether it could solve the above problem of fixing belief in the community. The method of authority seeks to fix belief

within the state, and so, to that extent, it is communal. It manages the problem in a better way than the method of tenacity. But while communal, the state is not a sufficiently unlimited or

inferential community that is suited for the purposes of inquiry. The state may do everything

from force and torture to try to fix belief, but Peirce maintains that it cannot succeed (W3: 250-251). Even in the most benighted states or tribes, there are individuals who notice that

individuals from other states think differently from them; that is, they recognize this difference and begin to doubt the method of authority itself. Accordingly, the method of authority resembles the method of tenacity, but at the political or social level.

While both tenacity and authority fail, out of the non-scientific methods, Peirce lastly considers *a priori*. Distinct from the two other methods, the method of a priority asks us to allow the mind its freedom to move to whatever ideas it would have as unchecked by experience. This is the method of natural inclination, according to Peirce. The method is *a priori* because it tries to allow free rein of the mind by having the mind be independent of experience or of the world as it impinges on the mind. In the history of philosophy, Peirce sees the method as creating a pendulum of thought that goes from spiritualistic to materialistic doctrines – and back again. However, it is clear from his presentation that Peirce associates the method of a priority with Descartes and Cartesianism. As we know from Chapter One, Descartes attempts to free the mind from its prejudices and the senses, so that the mind can naturally or spontaneously arrive at a conviction about what it takes to be true or absolutely certain.

Peirce sees a priority as failing to solve the problem of fixing belief in the community. Rather, in metaphysical matters, Peirce observes that there is often scarcely any agreement among such thinkers. They arrive at views that conflict along fundamental lines (e.g., spiritualism versus materialism), and then have no way in which to adjudicate the argument but to turn again to allowing the mind to freely judge what is true. The amount of intellectual disagreement as a result of such of method leads Peirce to conclude that a priority cannot solve the above problem concerning communal fixation. Peirce holds that, “metaphysicians have never come to any fixed agreement” (W3: 253), and hence, he takes their lack of agreement to indicate the inadequacy of the method of a priority.

Finally, Peirce describes *the method of scientific investigation*. It begins with the hypothesis that there is an external reality and that we can discover it by communal inquiry and through the patterns of correct inference. In the following crucial passage, Peirce explains what he means by the method of scientific investigation:

[The external permanency] must be something which affects, or might affect, every man. And, though these affections are necessarily various as are individual conditions, yet the method must be such that the ultimate conclusion of every man shall be the same. Such is the method of science. Its fundamental hypothesis, restated in more familiar language, is this: 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. The new conception here involved is that of reality” (W3: 254).

The point to notice is that Peirce is not simply making the hypothesis that there is an external reality (for, that may leave things at the nominalist’s view of reality, the transcendent cause of sensation, the incognizable origin). Rather, Peirce begins with the commitment that there is such a reality – and we have, he holds, no real doubts about that commitment – and proceeds to look to the way to gain sufficient experience and reason. The conception of reality that he is espousing is the one I took up in Chapter Two, where it looks to a corrective and inferential process, so that the real is the conception we must have had “when we first corrected ourselves” (W2: 239).

By referring to the fundamental hypothesis of reality, I agree with Douglas Anderson that Peirce means to distinguish a hypothesis from an assertion (Anderson, 1995: 109). Anderson sees Peirce’s choice of words here as growing out of his concern for the logical question and his logic of science. As with any development in the logic of science, there is, for Peirce, an appeal

to abduction and induction. While it may not surprise us anymore to find our minds constrained by something external, the following pattern of inference still holds:

Something outside our minds impinges on our thoughts and causes sensations
If there were an external permanency (or a reality), this would be a matter of course
Therefore, there is an external permanency (or a reality).

But to correct the sensations that come from the external reality and to overcome what error, prejudice, and fiction is in us, Peirce insists again on reality being a communal notion. On that view, the community is capable of indefinite growth (W2: 239). Peirce takes the communal nature of the scientific enterprise to support his claim: “all the followers of science are fully persuaded that the processes of investigation, if pushed far enough, will give one certain solution to every question to which they can be applied” (W3: 273). Proponents of scientific investigation are aiming at the universal and ultimate agreement that Peirce often describes in terms of the fixation of belief. Such a commitment, according to Peirce, makes it so that the method of scientific investigation solves the problem at the heart of the “Fixation” over finding the method that could settle belief in the community. However, to support my communal inferentialist reading, I aim to assess its merits in relation to another reading of this influential paper. I will maintain that my reading offers a way of managing and explaining the longstanding difficulties that surround the “Fixation.”

3.4 Short’s Reading: Peirce’s Thoroughgoing Antifoundationalism

In “Peirce on the Aim of Inquiry: Another Reading of the ‘Fixation’” (2000), Thomas Short claims that the longstanding puzzlement over the meaning of Peirce’s influential essay stems from the erroneous assumption that Peirce is putting forth arguments in the “Fixation.” Radical though it may be, Short holds that Peirce’s approach in the “Fixation” is non-argumentative; rather, Peirce uses an experimental approach, according to Short, where we are to *see* or feel the

force of his points. Short claims that Peirce is a proponent of “thoroughgoing antifoundationalism” (Short, 2000: 1). Given its crucial role in his reading, I shall begin by considering what Short means by this term. I will then evaluate Short’s reading, and will close the chapter by arguing that the communal inferentialist reading I offer is a more adequate interpretation.

Short maintains that Peirce is a thoroughgoing antifoundationalist, but to know what this means, we need to begin, where Short does, which is with Peirce’s rejection of *foundationalism*. In contemporary epistemology, *foundationalism* refers to “The doctrine that knowledge is ultimately based on beliefs that require no further justification” (Mautner, 2005: 228). Foundationalists tend to endorse the position at least because it provides a response to the threat of an *infinite regress*. In terms of epistemic justification, if one belief requires further justification from another belief, and the second belief requires further justification for it, then there seems to be no end to the need for further justification. According to foundationalists, the need for justification must stop somewhere, and they claim that it halts at *basic beliefs*, which are supposed to be non-inferential (i.e., they require no further justification). In relation to this threat, basic beliefs are to serve as regress-stoppers.

In explaining Peirce’s rejection of foundationalism, Short mentions this view as it appears in contemporary epistemology, although Short holds that a thoroughgoing antifoundationalism extends further than to a consideration about knowledge or epistemic justification. Short maintains that it applies to the aims and methods of inquiry (Short, 2000: 1). In this broader application, no aims or methods of inquiry are immune to revision or modification; rather, they are all thoroughly open to challenge. According to Short, there could be a demand for further and further revision – a situation analogous to that of the threat of

epistemic regress – but such is, says Short, what the thoroughgoing antifoundationalist must tolerate.

In making the case for the plausibility of thoroughgoing antifoundationalism, Short compares it to modern versions of naturalized epistemology (Short, 2000: 2). Such versions of this form of epistemology seem to serve as useful models since they too abandon the demand or search for foundations for science and knowledge. Short is aware that, by dispensing with the traditional need for foundations, one is liable to have one's position misunderstood. Accordingly, Short points out that thoroughgoing antifoundationalism is not a form of skepticism or relativism, which are two positions that Peirce would reject. Rather, the anti-foundationalist, according to Short, targets foundationalism and its tendency to slide into dogmatism. According to Short, the foundationalist must insist that some aims and methods are *beyond revision*; and hence, the foundationalist is no longer able to appeal to *further* reasons, questions, or inquiries (Short, 2000: 1). As Short maintains, Peirce's view must leave open the possibility for further inquiry, and it is thoroughgoing antifoundationalism that could do so.

3.4.1 Short on the Experiential Interpretation

After outlining the commitments of thoroughgoing antifoundationalism – and pointing out what it rejects – Short goes on to offer an *experiential interpretation* of the “Fixation.” The following statement by Short encapsulates the primary motivation for his reading: “[The “Fixation”] is important most of all for the form in which it is written; for that form exhibits the manner in which revisions of method are prompted by the experience of following a method” (Short, 2000: 3). That is, according to Short, it is an experience of following the methods themselves, not an attempt to provide arguments for them, let alone an attempt to supply foundations, which reflects

Peirce's approach in the "Fixation." In the following example, Short expresses how the experiential (non-argumentative) approach applies:

[If] I say, 'Go look at that flower: it is blue,' it is your experience of looking at the flower, and not what I say (or not that alone), that leads you to agree with me. That's not an argument, but it works just as well, or better, to convince you. Peirce's way of showing the inadequacy of the first three methods of fixing belief was like that. Or something like it; for there is a difference between observing an effect on someone else and experiencing that effect oneself (Short, 2000: 4).

In further supporting his experiential reading, Short claims that it best explains Peirce's introduction of the social impulse when he brings up the method of tenacity.

Where did the social impulse come from? It pops up unannounced, like a rabbit out of a hat. Nothing is said to establish its existence or to indicate that we are to assume it. But that's the point: it is not to be assumed prior to rejecting the method of tenacity. We come upon this impulse in finding that tenacity fails to fix our beliefs. We do not recognize the social impulse (qua cognitive principle) in ourselves without *experiencing the way others' contrary opinions make us doubt our own* (added emphasis; Short, 2000: 5).

Short goes on to apply his experiential reading to each of the non-scientific methods, and each time he does so he aims to show that Peirce is calling for us, as readers, to experience what it would be like to follow each of the methods. Short maintains that the above passage is powerful evidence that his reading reflects Peirce's thoroughgoing antifoundationalism and what Peirce was intending to have us see.

3.4.2 Two Interpretive Difficulties: Methods and Postponement

Without taking up the many pieces of evidence that Short adduces for his reading, I mean to turn now to the two longstanding interpretive difficulties that he claims his reading resolves. The first difficulty concerns why Peirce chooses to focus on the non-scientific methods that he does. The second is over how the method of scientific investigation appears to postpone the fixation of belief indefinitely.

Relying on the work of other commentators, including Murphey (1961) and Scheffler (1974), Short maintains that Peirce's selection of the non-scientific methods, on the surface, appears arbitrary (Short, 2000: 11). For example, Short mentions Murphey's judgment that the methods are ill-sorted and ahistorical, so that Murphey goes on to say that they are "straw methods" (Murphey, 1961: 165). That is, according to Murphey, Peirce picks the methods as ones that he can conveniently knock down to exhibit the strengths of the method of scientific investigation. While Short refrains from accusing Peirce of being disingenuous, he agrees with Murphey's general assessment that Peirce's selection requires scrutiny and explanation. As we can anticipate, Short holds that the non-scientific methods are ones where we are to *experience* the doubt that Peirce casts on each of them. According to Short, Peirce orders the methods in such a way as to make us see the need for an experiential reading and to have us accept the commitments and consequences of thoroughgoing antifoundationalism.

The second interpretive difficulty appears to be more serious than the first. For, it looks as though Peirce espouses the method of scientific investigation for the reason that it leads to the fixation of belief, but that method appears to postpone the fixation indefinitely (Short, 2000: 8). Worse yet, Short points out that the method of scientific investigation tends to unsettle many of our existing beliefs. With each further experience, study, or finding, there seems to be a continual updating of beliefs, at least over years and decades. If we generalize this point, looking beyond our lifetime, the difficulty is even more formidable, since each generation looks back on the errors and benighted ways of the previous generation. Our beliefs tend to be upset, one after another. On such a massive scale, experimental science continually seems to unfix our beliefs. Given as much, why does Peirce espouse this method, if the aim of inquiry is the ultimate fixation of belief? Short proposes an elegant answer. Peirce is a thoroughgoing

antifoundationalist, and he must remain open and tolerant to revision of belief, even on a massive scale. Accordingly, the method of scientific investigation postpones the ultimate fixation and it does so indefinitely. Short concludes that so much is consistent with his reading, if not offers the strongest evidence for it.

3.4.3 Short's Reading versus a Communal Inferentialist Reading

Turning now to an evaluation of Short's reading, Short is correct that Peirce rejects foundationalism, especially the epistemological variant of that position. For example, in *The Road of Inquiry*, Skagestad provides an account of Peirce's "rejection of the 'foundation' metaphor," as he cites Peirce's critique of Cartesianism and Peirce's similarity to other anti-foundationalist philosophers such as W.V.O. Quine and Otto Neurath (Skagestad, 1981: 17-19). Skagestad points out that, according to Peirce, there is no way "to step outside the confines of our actual knowledge to some sort of Archimedean point from which to evaluate and justify our entire body of knowledge" (Skagestad, 1981: 19). Peirce further rejects the foundationalist demand to begin inquiry with *basic beliefs*, since he maintains that our minds are unable to tell which cognitions could count as non-inferential knowledge. He makes an argument to that effect in his Cognition Series, which I took up in Chapter One. Without repeating it, I will simply point out that Short is correct about Peirce's denial of foundationalism. On that score, Short's reading is impeccable.

However, is Peirce a thoroughgoing antifoundationalist in the way Short says he is? That position involves more than the denial of epistemological foundationalism. It holds that any aim or method of inquiry remains open to revision. In response, I cannot see a good reason to hold that Peirce is a thoroughgoing antifoundationalist, especially with what he maintains about

inquiry (e.g., that there is an aim of inquiry, that its object is the fixation of belief, that it requires a community to reach our epistemic goals).

As for Short's experiential reading, the evidence he cites for it is uneven and sometimes odd. Consider the case of looking at a flower, and now compare it to the case of experiencing doubt in the face of peer disagreement. The two cases are quite different, as the one is a perceptual experience, while the other may give rise to real doubt, but it is not a perceptual experience in any plain sense. However, Short glosses over the differences, as though the cases could equally support his reading. I contend that Short must explain in clearer detail how the two cases are alike. Furthermore, when Peirce describes peer disagreement of this sort – for example, when he cites the social impulse – Short must have a way to explain the distinctive new step that Peirce refers to; that is, the step to see another's thoughts, beliefs, and doubts as equivalent to one's own. An experiential reading does not seem to capture what Peirce is seeking to have us consider when it comes to that new step, though it is the central point that Peirce means for us to grasp. What is clear is that the insight we gain in grasping it is unlike looking at, say, a rose or tulip; and hence, this difference presents a challenge for Short's reading.

The case of peer disagreement brings me to Short's proposal about how to resolve the first difficulty regarding Peirce's choice of methods. Without meaning to be overly forceful, I would argue that Short's reading fails to engage with the central problem of the "Fixation" concerning how the fixation of belief must be responsive to a growing community. As I see it, Peirce selects and orders the non-scientific methods as he does to show why each of them is incapable of being communal enough. That is, they provide no means of possibly resolving peer disagreement. They leave us in the condition where epistemic individualism can take over, so that an individual – or group of individuals – can claim to have knowledge despite disagreeing

with their peers. Whatever our assessment of the situation may be, Peirce finds it objectionable, and he intends for the method of scientific investigation to offer the path towards agreement and the fixation of belief. Short's experiential reading fails to address this problem along with Peirce's solution to it. However, as I argued, a communal inferentialist reading sharpens the focus on this chief problem in the "Fixation."

Although Short claims that his reading resolves the second difficulty concerning the indefinite postponement of the fixation of belief, the evidence points in another direction. Rather, it relates to Peirce's inferential commitment to induction, which may postpone the fixation of belief indefinitely. The reason is that induction is a sampling process, which cannot stipulate or determine any limit on the number of samples we would need to take to reach a generalization that would represent the facts. The key point is the following: since the method of scientific investigation relies on the patterns of correct inference, including induction, the method is likely to lead to the postponement of the fixation of belief in many cases. Seen in this light, such postponement is not an anomaly, but an expectation we should have about the method of scientific investigation. Curiously, Short appears to recognize this point about induction, even though he does not draw the connection to indefinite postponement in the way I have.⁵⁹ For example, Short writes,

Peirce argued that induction cannot be relied upon to give us the right answer in the short run and, hence, that inductive reasoning has no validity for anyone who cannot conceive of himself as a member of an indefinitely extended community (Short, 2000: 8).

Notice the last line in Short's statement concerning the indefinitely extended community. Peirce insists that the success of the inductive process requires a communal effort. To put it briefly, the

⁵⁹ Short relates this point about induction to his thoroughgoing antifoundationalist reading. However, as I have been urging, when we see the "Fixation" in light of the communal inferentialist reading, the idea of indefinite postponement makes sense. It is what we would expect, given Peirce's commitments about induction, community, and inference.

idea is that, since induction requires an ongoing sampling process, the community of inferential beings, as it continues to grow, must continue to take samples. For any given issue, at some point, we are likely to have taken enough inductions to represent the facts, though there is no guarantee. Lastly, there is one further piece of evidence I wish to draw attention to, which relates to the problem of epistemic individualism. Along with the postponement that induction tends to cause, there is another source of such postponement. Peirce highlights this source in the following statement: “The arbitrary will or other individual peculiarities of a sufficiently large number of minds may *postpone* the general agreement in that [final] opinion indefinitely” (added emphasis; W2: 469). Again, a communal inferentialist reading of the “Fixation” exposes the problem of epistemic individualism. Overall, in reply to the second difficulty, I submit that a communal inferentialist reading is more plausible than Short’s experiential reading.

3.5 Conclusion

The “Fixation” tends to be a puzzling article, despite it likely being Peirce’s most influential paper. Though it is sometimes voiced, the charge that Peirce is simply confused in the “Fixation” requires a reminder. Peirce’s “Fixation” is not a stand-alone piece, but the first of six papers in the Illustrations of the Logic of Science series. He does not articulate the logic of science until after the first two papers of the series. In response to the longstanding difficulties concerning the “Fixation” and Short’s alternative reading (an interpretation he provides to explain the difficulties), I maintain that a communal inferentialist reading of the “Fixation” clears them up. It furthermore shows that Short’s reading is rather puzzling. Overall, a communal inferentialist reading tracks a central problem in the “Fixation,” the problem of epistemic individualism. When seen in connection to his theory of inquiry, this reading provides the right focus, as it unpacks many of the key assumptions that Peirce builds into the method of scientific investigation.

4 CHAPTER FOUR

Peirce's View of Truth as Public

Unless truth be recognized as *public* –, as that of which *any* person would come to be convinced if he carried his inquiry, his sincere search for immovable belief, far enough,— then there will be nothing to prevent each one of us from adopting an utterly futile belief of his own which all the rest will disbelieve. Each one will set himself up as a little prophet; that is, a little “crank,” a half-witted victim of his own narrowness (original emphasis; The Peirce/Welby Correspondence, 1908).⁶⁰

In the previous chapter, I argued that Peirce's communal inferentialism provides us with an illuminating framework in which to see what is at issue in “The Fixation of Belief,” particularly when it comes to the problem of fixing belief not just in the individual but also in the community. In this concluding chapter, I aim to clarify Peirce's view of truth as public, a view that Peirce briefly develops in the “Fixation” and “How to Make Our Ideas Clear” but continues to refine in his later writings. When Peirce develops this view of truth, he does so in response to the problem that the method of tenacity raises, as that method tends to generate an extreme form of epistemic individualism. Recall that in the “Fixation” Peirce holds that the social impulse is what pushes the tenacious individual into communal inquiry. As the epigraph suggests, Peirce maintains that if we fail to recognize that truth is public we are liable to become the victims of our tenacity or private beliefs. The epigraph from 1908, then, may seem merely to echo what Peirce had already said in the “Fixation” about thirty years prior. However, there is more to this story, for it is noteworthy that Peirce, post-“Fixation,” deploys a different line of reasoning in reaction to the problem of tenacity. In his later writings, Peirce tends to appeal to the nature of experience, not the social impulse, as the *initial* factor that pushes the tenacious individual towards the realization that truth cannot be private. In spelling out his account of experience and

⁶⁰ SS: 73.

its connection to truth, Peirce insists that, “The essence of truth lies in its resistance to being ignored” (CP 2.139). While experience is one compulsive force, there is another such force, according to Peirce, that helps us see why he holds that truth must be public. For, Peirce maintains that, “Truth consists in the definitive compulsion of the investigating intelligence” (CP 2.333). The goal of clarifying Peirce’s view of truth as public, then, requires one to take into account *both* compulsive forces – in the form of experience and the investigating intelligence – and to show why epistemic individualism is bound to fail.

In three parts, I will take up the task of elucidating Peirce’s view of truth as public. First, I will raise what I shall refer to as *the problem of tenacity*, which principally concerns the extreme form of epistemic individualism that the method of tenacity tends to produce. Second, I will explain what Peirce means by *experience*, and will provide that explanation in the context of his theory of inquiry. Third, I will focus on what Peirce calls the *investigating intelligence*, and will relate it to his pragmatic maxim or procedure for spelling out the meaning of the idea of *truth*.

4.1 The Problem of Tenacity: Truth as Private

What I am calling the problem of tenacity refers to how Peirce, especially in the “Fixation,” intends to show what is wrong with both the method of tenacity and the tenacious individual. According to Peirce, whenever challenged, the tenacious individual will repeat the following sort of mantra about truth: “He will say, ‘I hold steadfastly to the truth, and the truth is always wholesome’” (W3: 249). While the tenacious individual may incessantly repeat such a line to himself, truth is not something that could be just for the individual. After all, tenacious individuals are likely to have conflicting opinions with other such individuals. That is, two tenacious individuals may keep telling themselves that their beliefs are true and that they have

integrity for clinging to them, but when their beliefs conflict, eventually they must gain some sense that the truth is beyond any individual's conviction. Although there appear to be rather obvious difficulties with the method of tenacity, curiously, Peirce admires several aspects of this method, including "its strength, simplicity, and directness" (W3: 256). However, Peirce tempers his praise for tenacity and the individual who adheres to it by pointing out that, "It is impossible not to envy the man who can dismiss reason, although we know how it must turn out at last" (W3: 256). On this point about ignoring reason, Peirce aims to show how tenacity must inevitably fail so that tenacity cannot be the method that would ultimately fix belief.

Nevertheless, it is not easy to show the tenacious individual why the method must fail since such an individual thinks that maintaining any personal belief or conviction is the mark of integrity. Given this, the extent to which such an individual seeks to sustain beliefs tends to be exaggerated and even comical, so that Peirce compares the tenacious individual to the proverbial ostrich (W3: 249). When the tenacious individual confronts the threat of doubt, that individual will recoil, burying his head in the sand. Outside the insulated method of tenacity, the process of social or communal inquiry always makes the individual face the danger of real doubt, so that the tenacious individual must go to great lengths in the attempt to make himself the locus of knowledge and to regard his private beliefs as true. According to Peirce, the method of tenacity, then, leads to this form of raw and extreme epistemic individualism. However, the key question, as I have suggested, is how to expose the faults of tenacity and the individualism it tends to generate.

Now as I mentioned in the introduction to this chapter, although Peirce deals with the method of tenacity in many of his writings, he primarily targets this method in the "Fixation." For the moment, I will take up how he deals with tenacity in the "Fixation" and some of his

writings pre-“Fixation,” since he deploys a different line of reasoning against this method post-“Fixation.” In the “Fixation,” Peirce means to expose the problem of tenacity’s epistemic individualism in two key ways. First, Peirce attempts to show why we need to fix belief not just in the individual but also in the community, however much that community may grow. This problem is the chief one from the “Fixation,” which was a focal point of Chapter Three, so I will limit my remarks about it in this chapter. Second, Peirce seeks to show inquirers why inquiry needs to be communal and why they need to espouse the method of scientific investigation, which Peirce argues is the only method that could ultimately fix belief. At the critical place in the “Fixation” where Peirce introduces the method of scientific investigation, he makes sure to point out this method’s commitment to what he refers to as an “external permanence” (W3: 253). At that juncture in the “Fixation,” where he introduces and outlines the method of scientific investigation, Peirce criticizes the method of tenacity for failing to recognize the conception of truth as public. Put briefly, he says that, “...the conception of truth as something public is not yet developed” in the method of tenacity (W3: 253). As I see it, these two ways express Peirce’s attempt to solve the problem of tenacity in the “Fixation,” and I will centre the subsequent discussion in this section on them. Both ways underscore the pair of forces that Peirce maintains would eventually compel us to see that truth cannot be private. The first feature concerns the conclusions we draw from our investigating intelligence, while the second concerns the force of experience (though, to reiterate, post-“Fixation,” Peirce reverses their order of appearance).

In the “Fixation,” Peirce introduces the method of tenacity at the very point where he intends to show that the aim or object of inquiry is the settlement of opinion. To be clear about what Peirce means by the settlement of opinion, he means by it the same thing as the fixation of

belief (see: W2: 18).⁶¹ The term *belief*, however, may be more apt, considering that Peirce holds that belief involves a habit of action, while the term *opinion* may not suggest that connection as clearly as it should.⁶² As Peirce sees it, in light of what he takes to be the aim of inquiry, the method of tenacity presents a formidable initial challenge:

If the settlement of opinion is the sole object of inquiry, and if belief is of the nature of habit, why should we not attain the desired end, by 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 that might disturb it? (W3: 250).

Peirce treats this question as a genuine one, not a rhetorical question, as we can tell by how he engages it. In an early draft of the “Fixation,” where Peirce refers to the method of tenacity as the method of obstinacy, he states that the simplest attempt to fix belief is by “obstinate adhering to whatever happens to be one’s existing opinions” (W3: 18). Returning to a point mentioned above, Peirce observes that the tenacious individual fails to listen to reason in the way that “a rational person will” (W2: 355-356). The tenacious individual tends to display *willed ignorance* akin to that of the fanatic or religious zealot. Peirce considers whether the tenacious individual who adheres to tenacity and engages in such willed ignorance could do so in the long run, especially in the face of all the challenges that such an individual would have to encounter. In the same vein, Peirce insists that the method of tenacity cannot hold its ground in practice (W3: 250).

For all Peirce’s focus on the method of tenacity, we can ask the following simple critical question to figure out Peirce’s motivation in this case. Why should it matter to Peirce – or us, for

⁶¹ Prior to the “Fixation,” in his writings from the early 1870s, Peirce discusses *the final opinion*. The final opinion and the fixation of belief refer to the same thing; namely, it is the conclusion that the community of inquirers would reach if they were to push inquiry as far as it could go.

⁶² It is further noteworthy that Peirce takes habits to be governing or mediating our conduct in lawful ways. I take him to be suggesting as much when he casts belief in terms of a *habit* or *rule* of action. A belief is, Peirce says, of the nature of a habit.

that matter – if some individuals, even a large population, were to remain simply stubborn and ultra-individualistic? According to Peirce, such people would fail to make intellectual progress, but perhaps there is simply no way to move such individuals from their beliefs; and so, they may remain as they are despite our best efforts to include them in communal inquiry. The question is about why Peirce should care so much about tackling the problem of tenacity since it might be that some people just are tenacious and individualistic. Now in response, it is worth noting that Peirce published the “Fixation” in *the Journal of Popular Science*, intending the article and his other articles that appear there for a wide readership. Given the major theme of community in the “Fixation,” Peirce means to address an audience of everyday educated people and have them appreciate the significance of that theme and its consequences. Given as much, I do not regard the method of tenacity as merely a foil for Peirce to reveal the merits of the method of science. Rather, Peirce places considerable value on showing why the method of tenacity is doomed to fail, and a large part of the motivation is Peirce’s belief that “This simple and direct method is really pursued by many men” (W3: 249). Considering that Peirce believes tenacity to be so widely accepted, he sees the method as preventing his contemporaries from appreciating that such a form of extreme epistemic individualism is bound to fail. According to Peirce, vast numbers of people would be wasting their efforts if they were to follow the method of tenacity and would remain in the condition of extreme epistemic individualism. As with many other philosophers, Peirce makes it a goal of his to help us avoid false beliefs that add to the intellectual waste that he so often finds regrettable. To adapt a line from “How to Make Our Ideas Clear,” when it comes to the method of tenacity, Peirce might remark that, ‘it is terrible to see the victims of their individuality, with all their intellectual vigour, pine away in the midst of intellectual plenty’ (W3: 261).

Now in some of Peirce's writings pre-"Fixation," there is material to consider that helps us see why he takes his appeal to the social impulse, in the "Fixation," as an adequate reply to the problem of tenacity. For example, in a manuscript from 1872, Peirce holds that the method of tenacity (or obstinacy) might be effective for "the term of a man's life," but over a longer haul, the method could not sustain itself in practice because we are "influenced by one another, even if not by reason" (W3: 18). Given the above concern about intellectual waste, the limited effectiveness of tenacity may provide Peirce with some solace; and the statement indicates how Peirce looks to the social impulse to show that tenacity could not ultimately hold its ground in practice. That is, as the social impulse increases, there would be fewer and fewer followers of tenacity, to the point where there would be no more followers of that method; rather, there would be more followers of the communal method of inquiry, namely, the method of science. As Peirce observes in "How to Make Our Ideas Clear," "the method of tenacity never prevailed exclusively; reason is too natural to men for that" (W3: 272). This remark about the naturalness of our reason exhibits the connection that Peirce sees our investigating intelligence as having on his original solution to the problem of tenacity.

If we connect some of these points, it appears that Peirce claims to have solved the problem of tenacity in the "Fixation" by pointing out that, "The method of tenacity will be unable to hold its ground in practice. The social impulse is against it" (W3: 250). From there Peirce goes on to note something quite significant to the development of our investigating intelligence. He says that the tenacious individual takes "a distinctly new step, and a highly important one"; and the step is to see that another person's "thought or sentiment may be equivalent to one's own" (W3: 250). As I read Peirce, this is the crucial step in the "Fixation" away from epistemic individualism and the step towards communal inquiry. Even in some early

writings, Peirce alludes to this crucial step, but he emphasizes its connection to doubt and the role of doubt in inquiry. In the “Practical Logic” (1869-70), a manuscript that provides an early blueprint of the “Fixation,” Peirce asks whether “the resolution of my doubt is more my object in an investigation than the production of unanimity of others” (W2: 355). Peirce answers that, “*no sensible man will be void of doubt as long as persons as competent to judge as himself differ from him*” (original emphasis; W2: 355). Notice that Peirce is here endorsing a communal model of doubt, which I described in detail in Chapter One. As we can tell by Peirce’s emphasis, what is most significant about this development is that individuals start to see the doubts of other inquirers as equivalent to their doubts. While in the “Practical Logic” Peirce does not call this a distinctly new step in inquiry, the parallel is strong enough to regard what he says in the “Practical Logic” as preparing the ground for what he says in the “Fixation.”

Peirce’s solution to the problem of tenacity is that he turns first to the social impulse and then sees that impulse as leading to the distinctly new step in inquiry, which speaks to the early development of our investigating intelligence. But now we may ask what role experience plays in “Fixation,” and in particular, we need to know how it relates to the problem of tenacity. It is worth noting a broad criticism Peirce makes that relates to all of the non-scientific methods of fixing belief. He says that those methods fail to make “...any distinction of a right and a wrong” way of settling belief (W3: 254). Concerning tenacity, Peirce claims that, “If I adopt the method of tenacity and *shut myself out from all influences*, whatever I think necessary to doing this is necessary according to that method” (emphasis added; W3: 254). According to Peirce, the same lesson applies, *mutatis mutandis*, to the methods of authority and a priority, the other non-scientific methods. As Peirce sees it, the problem boils down to how these methods fail to remain sensitive to the facts and fail to have any commitment to there being an external permanency,

which would provide the distinction between right and wrong or a general standard of correctness for our beliefs.

The most straightforward thing to say about the external permanency is that Peirce takes it to refer to external reality (W3: 253). By external reality, Peirce means that it is something that is not of our making and that impinges on us, constraining our minds and thoughts (W3: 29; W3: 34). Recall that reality, according to Peirce, must be independent of what you, I, or any other individual thinks about it.⁶³ The significance of the hypothesis that there is an external permanency or external reality provides a standard of correctness by which to evaluate our beliefs; and so, a method of fixing belief, according to Peirce, would need to be responsive to such a permanency. Consequently, the non-scientific methods tend to show the fingerprints of an all-too-human effort to fix belief; and so, eventually, we would doubt the non-scientific methods for that reason. The following passage links many of these points together and further shows what is lacking about the method of tenacity:

To satisfy our doubts, therefore, it is necessary that a method should be found by which our beliefs may be caused by nothing human, but by some external permanency – by something upon which our thinking has no effect. Some mystics imagine that they have such a method in a private inspiration from on high. But that is only a form of the method of tenacity, in which *the conception of truth as something public is not yet developed* (added emphasis; W3: 253).

⁶³ Peirce's conception of reality is quite complex since he maintains that reality must be independent of what any individual thinks about it – that is, reality is unaffected by what we think about it – yet reality is the object of the conclusion that the ideal community of inquirers would reach in the long run. As I sought to show in parts of Chapter One and Chapter Two, Peirce's view of reality relates to the conclusion that would be the end of inference and the processes required for doubt-resolution, prejudice-elimination, and the overcoming of error and ignorance. The key to what appears to be such a complex view of reality is to see that it is supposed to be the opposite of fiction, error, ignorance, and anything that depends on the individual or some set of individuals. In brief, our idea of reality, according to Peirce, is a communal notion. We are heading towards it as we go through these processes of correction, but we can tell what it would be, since we can explicate our notion of reality by having an understanding of such processes, which we go through in ordinary life.

This passage appears in the final section of the “Fixation,” a few pages after the introduction of the social impulse. The passage contains the first and only instance of Peirce explicitly discussing the conception of truth as public in the “Fixation.”

But why, we may ask, could not the social impulse *alone* push tenacious individuals toward recognizing that truth must be public? An aspect of the first part of the problem now appears in a new light, since Peirce had conceded that, “Unless we make ourselves hermits, we shall necessarily influence each other’s opinions; so that the problem becomes how to fix belief, not in the individual merely, but in the community” (W3: 250). Although Peirce never said so, presumably, the same exception about becoming extreme recluses would allow the mystics to shut out all influences and repeat their private truths to themselves. Now I believe that Peirce, in the “Fixation,” had meant to stress both how the social impulse *and* experience show how we cannot help but recognize truth as something public. However, he did not fully spell out the argument. As I see it, he thought that experience was too strong for individuals to try to make truth private, and that the social impulse would add a further form of compulsion. It is these two-pronged compulsive aspects that I believe require greater focus in what follows to elucidate Peirce’s view of truth as public. In sum, I hold that the problem of tenacity and its form of extreme epistemic individualism led Peirce to have to modify his arguments for why truth must be public.

4.1.1 Truth and Inquiry

Peirce tends to discuss truth in terms of its relation to the upshot of inquiry – or the conclusion of the inferential and communal process – rather than to talk about truth directly. It is common in the literature to cast Peirce’s account of truth in terms of the end or aim of inquiry. The terminology is apt, as Peirce relies on his theory of inquiry to make sense of truth, and then he

employs his pragmatism to clarify what we mean by truth. While I shall take up how he establishes the connection between his theory of inquiry and his pragmatism, to grasp why Peirce approaches the question of truth in a rather indirect way, it is worth turning to a few of his early statements about truth. For example, in the “Practical Logic” (1869-70), Peirce maintains the following:

That which we seek in an investigation is called truth, but what distinct conception ought to be attached to this word is so difficult to say, that it seems better to describe the object of an investigation by a character which belongs to it and to it alone...a genuine investigation is undertaken to resolve the doubts of the investigator (W2: 355).

In a further passage from the same work, Peirce offers a vivid description of the difficulty.

We wish to ascertain truth, but what is truth? This is an indispensable inquiry if we so define the function of reason, yet it would plunge us at once into a sea of metaphysics from which we could not hope soon to emerge (W2: 357).

Instead of entering “a sea of metaphysics” and running the risk of falling into confusion about what truth is, Peirce tends to look towards “the final settlement of opinion,” which would be the result of all possible experience and reasoning (W2: 352). Peirce’s cautionary use of the term metaphysics is deliberate, as we can tell from the following statement from “What Pragmatism Is” (1905):

You only puzzle yourself by talking of this metaphysical ‘truth’ and metaphysical ‘falsity’...Your problems would be greatly simplified, if, instead of saying that you want to know the ‘Truth,’ you were simply to say that you want to attain a state of belief unassailable by doubt (EP2: 336).

By metaphysical truth, Peirce means that it is supposed to transcend the mind, so that it would be incognizable. For reasons that are difficult to spell out succinctly, Peirce rejects anything that we claim to be incognizable or a thing-in-itself, since he maintains that no meaning could attach to such an idea of such a thing. Accordingly, Peirce insists that a concept, to have meaning, must be cognizable, where that holds that it must be possible for it to relate to a mind. The issue is

difficult, but it should become clearer why Peirce insists on this constraint about cognizability when I turn to his pragmatic maxim in the final section of this chapter.

Now to prevent a misconception, it is not Peirce's view that we should dispense with metaphysics, even if he rejects a metaphysical view of truth and falsity. According to Peirce, the less we face up to the metaphysical assumptions that we make, the more likely we are unwittingly to assume unwanted metaphysical baggage. In a quotation that cancels any suggestion that Peirce intends to abandon metaphysics, he maintains the following view: "Find a scientific man who proposes to get along without any metaphysics and you have found one whose doctrines are thoroughly vitiated by the crude and uncriticized metaphysics with which they are packed" (CP 1.130).

Since Peirce's theory of inquiry is a familiar theme from Chapter One, I will limit the following comments to only a few that set the contours that Peirce relies on when he aims to spell out truth in terms of the end of inquiry. While Peirce often says that the end of inquiry would be what all experience and reasoning would issue in, the theory reflects its core ingredients of belief and doubt. According to Peirce, the practical side of belief is of the nature of a habit, a disposition on which we are ready to act, and the sensational side of it reflects the state of satisfaction that we repose in when we are convinced. Likewise, a doubt interrupts belief and tends to be an erratic state, while it irritates us or makes us nervous. Peirce maintains that a surprise sparks inquiry and leads to real doubt, while a belief terminates inquiry. Accordingly, the following statement is representative of Peirce's view: "Living doubt is the life of investigation. When doubt is set at rest inquiry must stop" (W3: 18). Such a statement explains why Peirce sometimes claims that the end of inquiry would correspond with a conclusion that is unassailable by all possible real doubt. But a more familiar statement that Peirce tends to make is

that the end of inquiry would be the fixation of belief; and such a state would be one where there could be no living doubt. In that sense, then, we can understand why Peirce looks to clarify our concept of truth in terms of the fixation of belief. However, to modify our current thinking as well as to inform it, Peirce looks to both experience and real doubt, though we need to be careful about what he means by these terms.

4.2 Peirce on Experience: The Push towards Truth as Public

About a decade and a half after the “Fixation,” in 1902, Peirce works on the manuscript for a book he plans to publish titled, “Why Study Logic?” where he discusses the nature of experience and its relation to truth. There, Peirce raises the question of what we mean by truth with an imagined interlocutor. The question takes the following form: “What do you mean by there being such a thing as Truth? You mean that something is SO – is correct, or just – whether you, or I, or anybody thinks it is so or not” (original emphasis; CP 2.132). In seeking to explicate the meaning of truth, he takes up the further question of what *experience* means.⁶⁴

In the same manuscript, Peirce characterizes experience in the following terms:

“Experience is that determination of belief and cognition generally which the course of life has forced upon man. One may lie about it but one cannot escape the fact that some things *are* forced upon his cognition” (original emphasis; CP 2.139). Often Peirce describes experience as an “outward clash,” as something that causes resistance – action and reaction – and something not of our own making (CP 8.41).⁶⁵ According to Peirce, to put it roughly, experience involves a dyadic relation between the experiencer and the object experienced. To gain a better grasp of

⁶⁴ In the “Fixation,” Peirce mentioned in passing a prescientific sense of experience, ‘which can teach anything,’ and a more scientific sense of experience. As for the latter sense, Peirce associated it with Francis Bacon and the rise of experimental science (W3: 243).

⁶⁵ Bernstein offers the following helpful clarification of what Peirce meant by experience. “The feature of experience that Peirce most wants to emphasize...involves bruteness, constraint, ‘over-and-againstness.’” (Bernstein, 2010: 132).

what Peirce means by experience, consider a vivid example of his that I have slightly modified in what follows. Say, I am out for a walk and in a state of reverie, so that I am mostly unaware of my surroundings. In this dream-like state, there is no sense of compulsion or force (EP2: 4). Up ahead, without my being aware of it, a team of movers are frantically working and carrying a ladder. Suddenly – bang! – the ladder hits the back of my head. Even if it was an accident, and I did not mean to resist the ladder, Peirce maintains that, “you must have resisted with a force equal to that of the blow” (CP 5.45). In using the example of the ladder, Peirce means to illustrate how experience must involve action and reaction, an outward clash, which often results in surprise. To avoid a misconception, Peirce does not reduce all cognition to experience, so construed. According to Peirce, to do so is the great mistake of the nominalists, who maintain that the only real beings are concrete individual things, which sometimes crash into one another.⁶⁶ To take a further example, Peirce says that if we seek to have a clear idea of what experience means, we can go to a doorframe and firmly push our shoulder against it (CP 5.45). In that case, we become aware of resistance and reaction, which are the marks of experience, according to Peirce. Along with the example of the ladder, this case illustrates the *dyadic* relation that Peirce says is distinctive of experience.

In his later writings, post-“Fixation,” and after the Illustrations series, Peirce relates what he means by experience to the question of truth. His examples above draw attention to the compulsive or forceful aspect of experience, which he relates to the compulsive character of truth. While Peirce is rather sure that his contemporaries will accept the points he is making about the compulsive aspect of experience, he is doubtful that they will regard truth in the same

⁶⁶ I am *not* assuming that nominalism is a theory about collision, but rather I am underscoring Peirce’s view that nominalists hold that only individual things are real, that such things do exist, and that such things can react to one another.

way. In the following passage from 1902, Peirce draws the comparison between experience and truth in a thought-provoking manner by bringing up the case of tenacious individuals who seek to shut their eyes to the compulsive and public character of experience and truth.

The very opinion entertained by those who deny that there is any Truth, in the sense defined, is that it is not force, but their inward freedom which determines their experiential cognition. But this opinion is flatly contradicted by their own experience. They insist upon shutting their eyes to the element of compulsion, although it is directly experienced by them. The very fact that they can and do so shut their eyes confirms the proof that fact is independent of opinion about it (CP 2.138).

In the passage, if the connection to experience, so construed, is not obvious, then consider the following statement that follows that passage: “Deceive yourself as you may, you have a direct experience of something reacting against you...The essence of truth lies in its resistance to being ignored” (CP 2.139).

Now as I see it, in the “Fixation,” Peirce had wished to present such a line of evidence to show that the method of tenacity must fail and cannot make truth something private. That is, the tenacious individual’s attempt to shut out all evidence or act like the proverbial ostrich confirms that the tenacious individual is pretending to ignore what that individual can only ignore for so long. According to Peirce, our thoughts and beliefs need to be responsive to an external permanency or an external reality, which impinges on us. In conceding as much, we are admitting that we have experiences, in the sense that Peirce outlines, and that there is a source of such experiences, which is not of our own making. There is a compulsive element of experience, then, and Peirce maintains that it is something that cannot be private, however much even the most tenacious individual seeks to ignore it. Now the further reason I maintain that Peirce meant to deploy this sort of argument in the “Fixation” is that the initial push it provides towards a public conception of truth is more compelling than is his original argument. Recall that, in the “Fixation,” Peirce had argued that the social impulse would be enough to force the tenacious

individual to engage in communal inquiry. But Peirce had to admit that the argument could not apply to those tenacious individuals who were recluses or did not participate in social life. The argument above that rests on Peirce's account of experience can apply to all tenacious individuals. Crucially, this argument preserves how Peirce presents his hypothesis of reality in the "Fixation," where he holds that the method of scientific investigation assumes an external reality that is the source or origin of experience.⁶⁷

4.2.1 The Struggle against Real Doubt

One of Peirce's firm commitments in the "Fixation" and throughout his writings is that experience can be a source of surprise, which, in turn, tends to upset belief and leads to the struggle against real doubt. Peirce often defines inquiry in terms of such a struggle, claiming that when the struggle ceases, so too does the thinking or reasoning that accompanies inquiry. At the point where the struggle ends (unless the cause is the inquirer's death), Peirce maintains that it is because belief supplants real doubt. Accordingly, since he elucidates our concept of truth in terms of the end of inquiry, Peirce considers whether a compulsory belief would be what we would arrive at if we were to reach the truth. The following passage helps to explicate what Peirce means by the fixation of belief.

"Why dispute? To reach a final and compulsory belief is, therefore, what the reasonable disputant aims at. But what he aims at is the truth. Therefore, by the truth he means nothing more than a finally compulsory belief" (CP 2.29).

⁶⁷ I need to point out, however, that this is not the whole story. Peirce defends a view of reality that admits that there is an external permanence, but that looks to the *upshot* of a communal and inferential process that filters out all fiction, error, ignorance, and prejudice (i.e., anything that reflects the idiosyncrasies or vagaries of the individual). The process is one that inquirers carry out in the method of scientific investigation. The conclusion of that corrective process is what Peirce means by reality, and he regards that conclusion, for those who investigate, to be the most compelling conclusion they could reach. To be clear, Peirce does not deny that there is an external permanence; rather, he assumes that there is. However, he rejects the nominalist's view of reality, which assumes that reality is the source or origin of our sensations, the concrete individual things themselves. In the body of this chapter, I take up these matters in further depth, so I will reserve a discussion of them where it is appropriate.

It helps to remember that, in this passage, Peirce assumes that he has already made a persuasive case, in the “Fixation,” for why the non-scientific methods could not result in a finally compulsive belief. That is, Peirce denies that tenacity, authority, or a priority could be the methods that lead to such a belief, because such methods cannot escape real doubt.

I turn now to a passage from 1902 that elucidates what Peirce means by real doubt and the struggle that it creates. I take up this matter since it closely relates to the above points about experience and Peirce’s account of truth. Often Peirce talks about real doubt and says that it fuels inquiry, though there is the question of what he means by *real* doubt. The following passage elucidates what Peirce has in mind:

Among the inner shapes which binarity assumes are those of the doubts that are forced upon our minds. The very word ‘doubt,’ or ‘dubito,’ is the frequentative of ‘duhibeo’-- i.e., *duo habeo*, and thus exhibits its binarity. If we did not struggle against doubt, we should not seek the truth (CP 2.84).

A real doubt compels us to attend to it, as it causes, according to Peirce, the irritation of doubt. But equally noteworthy, Peirce regards a real doubt as not of our own making, which is why he can maintain that it is *real*.⁶⁸ In the passage, Peirce draws a close comparison between a real doubt and experience, as both exhibit a dyadic or binary relation. Furthermore, similar to experience, Peirce maintains that real doubt modifies our current beliefs or present thinking.⁶⁹ However, the aim of inquiry, according to Peirce, remains the truth or the fixation of belief. For Peirce, the path towards such an aim must rely on the method of scientific investigation and what he refers to as the investigating intelligence.

⁶⁸ I am not denying that the contrast class to real doubt is fictitious doubt. Along with fictitious doubt, Peirce sometimes talks about paper or Cartesian doubts.

⁶⁹ “I call such forcible modification of our ways of thinking the influence of the world of fact or *experience*” (original emphasis; CP 1.321).”

4.3 The Investigating Intelligence: Clarifying Truth

While Peirce is less than explicit about what he means by the investigating intelligence, a plausible interpretation is that he is referring to the process of development that comes from the inquirer employing the method of scientific investigation and how that development advances inquiry towards truth. Insofar as this interpretation is in line with what Peirce means, it further connects to his supposition that communal inquiry fuels the process of intellectual growth. With the method of scientific investigation in mind, Peirce claims that “all the followers of science are fully persuaded that the processes of investigation, if pushed far enough, will give one certain solution to every question to which they can be applied” (W3: 273). Even if the investigators fall short of reaching such a solution or conclusion, Peirce underscores the spirit of truth-seeking of such investigators and their *cheerful hope* – to borrow Peirce’s term – that such a conclusion would obtain if they were to continue investigating (W3: 272-273).

In seeking to allow the investigating intelligence to continue to develop as much as it could, Peirce aims to remove the barriers that tend to block the road of inquiry. In “The First Rule of Logic” from 1898, Peirce insists that, to make sure to leave the way open, we must admit general ignorance and cultivate the desire to learn. In the article, Peirce states the following:

Upon this first, and in one sense this sole, rule of reason, that in order to learn you must desire to learn, and in so desiring not be satisfied with what you already incline to think, 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* (added emphasis; EP2: 48).

Expanding on the significance of this rule of reason and a genuine desire to learn, Peirce says that they are “for the sake of seeing how the truth may really be” (EP2: 48). This desire to learn and the march towards truth have a deep connection to one another, especially when we consider them in the context of Peirce’s communal inferentialism and the role of induction in it. For, as Peirce says, “The inductive method springs directly out of dissatisfaction with existing

knowledge” (EP2: 48). According to Peirce, induction aims at the truth: “The successes of modern science ought to convince us that induction is the only capable imperator of truth-seeking” (8.209). If we ask why induction should have the role of seeking truth, it is because induction aims to take samples and to draw generalizations that would represent the facts. Crucially, though, the success of induction depends on a communal enterprise, since the community must take numerous samples over a vast period; and the number of samples and amount of time it would take to achieve so much far exceeds the best efforts of any individual. Given the requirements for the success of induction, Peirce insists that we must not obstruct the road of inquiry; that is, if we were to interfere with the process of induction, we would impede the march towards truth.

In sketching this proposal for how to develop the investigating intelligence and how to move towards truth, Peirce draws attention to the assumptions that stifle such development. In particular, the assumptions that create such roadblocks, according to Peirce, include believing that there are inexplicable facts or that some facts are utterly unknowable. On this matter, Peirce mentions the French positivist Auguste Comte (1798-1857) and his notorious assumption about never being able to find out the composition of the stars. In “The First Rule of Logic,” Peirce states that,

The second bar which philosophers often set up across the roadway of inquiry lies in maintaining that this, that, and the other never can be known. When Auguste Comte was pressed to specify any matter of positive fact to the knowledge of which no man could by any possibility attain, he instanced the knowledge of the chemical composition of the fixed stars; and you may see his answer set down in the *Philosophie positive*. But the ink was scarcely dry upon the printed page before the spectroscope was discovered and that which he had deemed absolutely unknowable was well on the way of getting ascertained (EP2: 49).

Similarly, in “How to Make Our Ideas Clear,” Peirce cites the same example about the stars to conclude that, “it is unphilosophical to suppose that, with regard to any given question (which has any clear meaning), investigation would not bring forth a solution of it, if it were carried far enough” (W3: 274). Pushing the inquiry far enough, however, would require the full development of our investigating intelligence and a supreme communal effort. Although Peirce tends to concentrate on induction and its role in truth-seeking, it is worth recalling that Peirce regards induction as one of three types of inference – the others being abduction and deduction – that comprise the communal and inferential process. Overall, Peirce holds that truth would relate to the state that would obtain if “inquiry were pushed to its ultimate and indefeasible issue” (CP 6.485).

One way of tying together the threads explored so far is to consider how Peirce clarifies the meaning of *truth* in the companion piece to the “Fixation,” “How to Make Our Ideas Clear.” There, Peirce aims to provide a general technique or maxim to figure out what we mean by even our most abstract and philosophical terms. Although infrequently quoted, the following passage expresses Peirce’s basic motivation in “How to Make Our Ideas Clear”:

The very first lesson that we have a right to demand that logic shall teach us is, 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 (W3: 260).

To achieve such mastery or control of our ideas, Peirce outlines three grades of clarity, each of which builds on the next, so that we should not think that after we master the concept in a given grade that we can then dispense with it. The first grade is a tacit form of *familiarity*, where we have no hesitancy about how to apply the concept. To illustrate this grade, we can take up the example that Peirce uses, which is the concept of hardness. Even children, though they are likely to be unable to articulate it, are familiar with what it means for, say, a rock to be hard, and they

know that hard things can resist scratching or are not easy to break. As I mentioned above, Peirce applies the grades of clarity to our philosophical concepts too, and the one he tends to focus on in “How to Make Our Ideas Clear” is that of *reality*. Peirce claims that even children, at the tacit level, know how to apply this concept, since they have a sense of the difference between fictions or make-believe and reality. Roughly put, they have a strong hint that there are things that we make up and things that are not of our making. Things that are products of our imaginations or figments of the mind reflect the *individuality* of thought. The second grade of clarity is *abstract definition* or being able to formulate the essence of a concept into words. In the case of hardness, the definition might be the condition of something being firm and capable of resisting scratching. Peirce is eager to apply the second grade to the concept of reality, since he believes that it poses a good test to the application of this grade and since he formulates a view of reality that relates to his theory of inquiry or conceivable practical effects. Peirce writes,

It would probably puzzle most men, even among those of a reflective turn of mind, to give an abstract definition of the real. Yet such a definition may perhaps be reached by considering the points of difference between reality and its opposite, fiction... Thus, we may define the real as that whose characters are independent of what anybody may think them to be (W3: 271).

However, Peirce does not rest content with this grade as the highest, since we can distinguish verbal and real differences between things, and the empirical discoveries that we make to inform our concepts go beyond verbal or definitional matters.

The third grade of clarity is the pragmatic grade. Peirce spells it out by formulating *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 conception of the object (W3: 266).⁷⁰

⁷⁰ Concerning the question of whether Peirce intends for his pragmatic maxim or procedure of attaining conceptual clarity to apply to every idea or sign, he limits its application to “...the meaning of intellectual concepts, of those

Turning again to the simple example of hardness, Peirce holds that if we were to grasp the sum of the conceivable practical effects of the concept, then, we would have a complete apprehension of the meaning of the concept. For example, if we were to press a knife's edge against a diamond, then the object would resist scratching.⁷¹ If we were to spell out the concept in terms of such hypothetical conditionals and were to know what would obtain, we would have a complete sense of its meaning and our idea would be clear. But what would obtain would not be just an intellectual activity or exercise; rather, we would find that we have certain habits, predictions, and expectations that correspond with how to make our ideas clear. That is, we would find that we have certain *beliefs*, say, about what would happen if we were to apply the knife to a hard object. Now recall that, according to Peirce, a belief is of the nature of a habit, as it involves a disposition to act. Peirce draws quite a broad conclusion in "How to Make Our Ideas Clear," where he states the following: "the whole function of thought is to produce habits of action... To develop [a thought's] meaning, we have, therefore, simply to determine what habits it produces, for what a thing means is simply what habits it involves" (W3: 265). By spelling out all the conceivable practical bearings of a given concept and knowing the habits of action that would surround it or take root, Peirce maintains that we would attain the highest grade of clarity. While Peirce does not say so, at this point, it is worth noticing that the connection to habits of action and practical bearings reflects the *public character* of Peirce's pragmatic grade of clarity. The

upon which reasonings may turn" (CP 5.8). That is, Peirce excludes names, feelings, and sensations of colour such as of 'green' or 'red,' since they are not intellectual concepts.

⁷¹ In "How to Make Our Ideas Clear," Peirce sometimes suggests that the pragmatic test is about what *will* happen if we apply the test, so that it depends on what actually happens. For example, in the example of the knife's edge, Peirce talks about actually applying it to a diamond. But Peirce does not mean to confine the application to what will happen, and he later expresses regret about having left that impression, since he regards it as nominalistic (see: CP 8.191; CP 5.483).

procedure removes the obscurity or privacy of views that would aim to clarify our concepts in terms of sensations or observations that belong to the individual alone.

At this stage, though, we may wonder about the application of the third grade to the concept of reality, and then ask what the connection is to truth. Surprisingly, this matter concerning the application of the third grade of clarity receives less attention in the literature than we might expect given how crucial it is to Peirce's project. If we ask about the conceivable practical bearings of the concept of reality, Peirce offers quite a simple answer: "The only effect which real things have is to cause belief" (W3: 271). Peirce says that "The question therefore is, how is true belief (or belief in the real) distinguished from false belief (or belief in fiction) (W3: 271). In this case, Peirce is tracing out the consequences of his conclusion from the "Fixation," where he had described the hypothesis that an external permanence or external reality impinges on our thoughts and provides us with sensations. Such a hypothesis, he says, figures into his method of scientific investigation. But given that Peirce does not align his view of reality with the simple hypothesis of an external reality but looks to the conclusion of a corrective process that filters out fiction, ignorance, and error, what he says here is not the whole of his account of reality or truth. That is, he clarifies our notions of reality and truth in relation to the upshot of the inferential and communal processes involved in the method of scientific investigation. Consider the textual evidence for the reading I am offering. In "How to Make Our Ideas Clear," Peirce maintains that, "Now, as we have seen in the former paper [the "Fixation"] the ideas of truth and falsehood, in their full development, appertain exclusively to the scientific method of settling opinion" (W3: 272). As for their complete development, Peirce writes, "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" (W3: 273).

Admittedly, the way Peirce clarifies our concepts of truth and reality is quite compressed, but to see what he is doing, we need to keep in mind that he is looking to the conclusion of the corrective process of the method of scientific investigation. When Peirce refers to “all who investigate,” in the previous statement, he is alluding to the community of inquirers. To leave open the road of inquiry, the process of induction, and the path towards truth, Peirce holds that we must develop the investigating intelligence and the inferential and communal process (i.e., his communal inferentialism). The belief or opinion that we would reach at the end of this process, according to Peirce, would be compelling and would be public. In this way, Peirce clarifies our concept of truth in terms of the fixation of belief.

4.4 Conclusion

The chapter aimed to provide an account of Peirce’s view of truth as public, where I began with the problem of tenacity, since Peirce wrestled with that problem when he sought to articulate this view of truth. In the first section, I used the tenacious individual as a foil to show what Peirce considered deeply wrong about tenacity’s extreme form of epistemic individualism, and why he held that truth could not be private. In the context of his theory of inquiry, where real doubt is concerned, I spelled out what Peirce meant by experience. In the second section, I examined why Peirce, post-“Fixation,” said that experience was the initial push towards a public view of truth rather than to maintain his former argument, in the “Fixation,” that the social impulse provided that impetus. Finally, in the third section, I took up what Peirce likely meant by the investigating intelligence, and I pointed out its relation to his effort to clarify the pragmatic meaning of our concept of truth. Overall, in this chapter, I reconstructed an account of how the two compulsive components – experience and the investigating intelligence – work together to reveal why truth must be public, according to Peirce, and why epistemic individualism must fail.

CONCLUSION

Peirce's critique of epistemic individualism is an unexplored topic in the literature, though it concerns his fundamental aim to transform philosophy into a communal study. While there are a few accounts of this critique (Haack (1983); Forster (1992; 2011)), despite its importance, there is no in-depth treatment of the topic. Furthermore, in the brief accounts that we have, there is no close examination of how Peirce's notion of the community ties into his inferential commitments. Over four chapters, I have defended the claim that Peirce's communal inferentialism provides an illuminating framework in which to describe and evaluate the reasons he argues from in his critique of epistemic individualism. While the bulk of what I have to say about Peirce's critique of epistemic individualism is in the preceding chapters, in these concluding sections, I will do three things. First, I will recall some significant points from the chapters. Second, I will reemphasize the crucial notion of the inferential and communal process, which drives much of Peirce's project. Third, I will suggest some issues and areas for future work on topics that closely relate to the main theme of this dissertation.

Overall, I have examined the central reasons that led Peirce to maintain that epistemic individualism is a philosophical dead-end. I defended the claim that we can best appreciate the rational support for Peirce's critique when we see it through the lens of his communal inferentialism. Admittedly, communal inferentialism is not a term that Peirce used, and no single statement can capture its meaning; for, it designates an amalgam of Peirce's key assumptions, which trace to the inferential roots of his system. To reiterate, the assumptions that comprise Peirce's communal inferentialism include the following: that the activity of the mind is fundamentally inferential; that there are three patterns of correct inference; and his notion of the *community*. Peirce's communal inferentialism is most apparent in his Cognition Series, though it

crops up in almost all of Peirce's subsequent philosophical work, including his *Illustrations Series*, which contains "The Fixation of Belief" and "How to Make Our Ideas Clear."

Turning now to some key ideas from the chapters, as I explained in the *General Introduction* and at the end of Chapter One, Peirce denies that we have special cognitive faculties that could allow us to discover non-inferential truths. Instead of assuming that the mind has such special faculties and can make such a discovery, Peirce insists on a different set of assumptions. Two stand out. First, we need to begin with the beliefs that we actually have (many of which are likely to be prejudices). Second, we should begin with and adhere to the inferential and communal process that consists of the three patterns of correct inference (abduction, deduction, and induction). While the epistemic projects of early modern philosophy set out with the need to find a non-inferential and foundational starting-point for inquiry (i.e., to find a basic belief or primary truth), Peirce rejects that assumption. His rejection of it bears a deep connection to his denial of epistemic individualism. With the appropriate context in place, it is easy to see why. If the individual had such cognitive faculties, then the individual could discover such truths or basic beliefs; and hence, the individual could be the locus of knowledge. In reply, Peirce advances a probabilistic argument to support the claim that it is quite unlikely that we could discover such truths since it is very likely that we lack the requisite cognitive faculties to make such a discovery. This counterargument reflects, in large part, why Peirce rejects epistemic individualism. If the claim that we have such cognitive faculties is spurious, then the argument that the individual is the locus of knowledge collapses along with it.

In Chapter One, I reinvestigated Peirce's case against Cartesian individualism, which many scholars consider the prime example of epistemic individualism. While I agree with that assessment, Peirce's case is not problem-free or straightforward, especially in view of the

controversy that surrounds the case. As we saw, critics contend that Peirce misreads Descartes, and in particular, they claim that Peirce fails to grasp the purpose of Descartes' method of doubt. In reply, I provided a set of evidence that supports the counterclaim that Peirce was carefully tracking the several functions of Descartes' method of doubt. Recall that the first function of this method directly reflects Descartes' preliminary to philosophy, which is for the individual to free the mind entirely from its prejudices (*praejudicia*). Relying on Peirce's writings, I argued that Descartes' need to start out by expunging all prejudices and disaccustoming the mind from its previous state is something that the individual cannot do. And Peirce's reason for that, more specifically, concerns how the individual tends to be unaware of these prejudices or unable to correct them (since they often remain so convincing). In response to the need to remove prejudices, Peirce holds that we must form a community of inquirers and engage in a communal and inferential process, which offers us the best chance of prejudice-elimination. That is, as Peirce sees it, we need to begin with the prejudices we actually have, form such a community, have that community raise real doubts in us, and then seek to push the process as far as it could go. The product of the process, as I pointed out, would be complete prejudice-elimination, and that would involve the process of doubt-resolution.⁷² In both cases, the processes are communal and gradual as opposed to individualistic processes, which suppose the products of them to be for the individual here and now.

While the issue of how to find a way to remove prejudices is a major theme of Chapter One, I briefly described a similar process in Chapter Two with respect to Peirce's aim of explicating our notion of reality. There, I took up Peirce's response to the nominalist's conception of knowledge, the primary target of the chapter, but I also touched on the contrast

⁷² The reason is simply that prejudices (or long held beliefs), according to Peirce, require real doubt to unsettle them.

between the nominalist's view and Peirce's view of reality. The topic came up because the essence of nominalism states that reality relates only to concrete individual things. According to Peirce, the nominalist's view of reality holds that what is real must relate to a *res extra animam* (*viz.*, a thing external to the mind). In reply, Peirce maintains that our notion of reality is a communal notion that must relate to the mind or be cognizable. The motivation for his position comes from how he sees reality as standing in contrast to fictions or figments of the mind, and how such figments or fictions depend on the mind of the individual (or group of individuals) to be what they are. That is, according to Peirce, a fiction is the product of the individual's mind (e.g., consider the belief, say, that elves are real. Such a belief reflects the idiosyncrasies of the person who believes that there are such creatures. Something real, though, is independent of what anyone in particular thinks about it). Again, the thing to notice about Peirce's treatment of the topic of reality is that he regards fictions or figments as reflecting *individuality*, where Peirce associates individuality with fiction, ignorance, error, and negation. In contrast, Peirce takes our greatest epistemic concepts and achievements to be communal ones. Peirce endorses the view that reality must relate to the conclusion that the community would reach if inquiry or the inferential process were to continue as far as it possibly could. Accordingly, reality remains independent of what anyone in particular thinks about it, though Peirce maintains that our view of reality cannot transcend the mind or stand altogether apart from the communal and inferential process. In sum, according to Peirce, our notion of reality must be cognizable and communal.

The bulk of Chapter Two concerned what Peirce takes to be the nominalist's view of knowledge and the nominalist's conception of the mind. There, I presented the material in the form of what I referred to as *the dilemma of epistemic individualism*. The nominalist's view of knowledge, which holds that the individual must gain knowledge through a set of private

sensations, faces the problem of skepticism about the external world (see: Forster, 2011). The nominalist's view does not so much as state a positive view of knowledge as it underscores the need to find a way around this problem of skepticism. According to Peirce, if the nominalist is unwilling to concede skepticism, then one alternative is to maintain that the mind could mirror (i.e., non-inferentially picture) concrete individual things in the world, and having such a capacity would leave open the possibility of knowledge. However, I pointed out that the nominalist's acceptance of such a conception of the mind generates the dilemma in a straightforward way: either the nominalist maintains that the mind could mirror the world, *or* the nominalist must concede skepticism (a position fatal to the possibility of knowledge). In Chapter Two, I stressed the first horn of the dilemma, since that alternative might make the nominalist's view of knowledge remain viable. However, I showed that Peirce advances some strong arguments to reveal that the nominalist's conception of the mind is erroneous. It becomes apparent how costly the alternatives are in the dilemma, for it now takes the following form: either the nominalist maintains a false conception of the mind, *or* the nominalist must concede skepticism. To be clear, the nominalist maintains that knowledge could only be for the individual, and the nominalist tends further to assume that the mind could gain non-inferential knowledge. Consequently, Peirce's communal inferentialism is in direct conflict with the assumptions that the nominalist is making about knowledge and the mind.

There is an arc of development between Peirce's attempt to put us in the position of optimal epistemic judges (Chapter One) and what he later refers to as the growth of our investigating intelligence (Chapter Four). Over his writings, Peirce places increasing stress on the role of experience. As he views it, experience tends to modify our thinking by providing us with surprises, and there is a range of different things that can break our expectations. The most

familiar form of surprise is something unexpected in our environment, but a surprise can also come from facing someone whose beliefs conflict with our own. As I explained in Chapter One, according to Peirce, surprise is what causes real doubt and interrupts a belief and the habit of action that corresponds with it. In whatever form the surprise takes, Peirce maintains that we must begin the inferential and communal process with abduction. There is a clear reason for having to start there: an abduction begins with a conjecture or hypothesis that aims to *explain* the surprise. After engaging in abduction, we are to deduce certain consequences from what we conjectured. Finally, there is induction, which concerns taking samples and testing, so that induction is what moves us towards the truth or to accurate representations. At some point, as we carry on the inductive process, the generalization we arrive at would represent the real ratio of the samples having a certain quality or character. To illustrate this complex inferential process, which features these three types of inference, I used the example of an imagined unsophisticated community that is seeking to figure out the cause of malaria in humans (Chapter One).

Although all three types of inference are essential to the process, it is the point about induction and its connection to truth that I intend to spell out in a future project. Again, with the way that Peirce seeks to clarify truth in terms of a fixed belief, we need to see how he does this with induction in mind. As I explained in Chapter Four, Peirce regards induction as the emperor of truth-seeking. For Peirce, induction moves us towards truth in a way that would eventually *compel* assent. Now there is a deep connection, as I suggested in Chapter Three, between induction and habit formation. Since induction is about taking samples and making specific observations, Peirce sees it as a form of fixing attention and developing habits. In Chapter Three, I further pointed out that the best way to know what Peirce means by a belief in “The Fixation of Belief” is to see that a belief always involves a habit of action – a belief is of the nature of a

habit. Now the project I have in mind is to explain Peirce's notion of fixing belief in terms of fixing attention and fixing habits through a series of inductions. Peirce never explains the link between induction and the fixation of belief in quite this way in any single work of his; and there is no thorough account of it in the literature on Peirce. The project is especially worthwhile in light of the ongoing controversy over what Peirce means by truth and how he seeks to elucidate our idea of it. In Chapter Four, I laid down much of the basis for this work, where I provided an account of what Peirce means by his view of truth as public. In this way, the project I have in mind is to launch from the material I covered in both Chapter Three and Chapter Four.

One area of further interest is Peirce's *pragmatism* – his method for figuring out the *meaning* of our ideas and notions – which he continues to develop in his later writings. In Chapter One, I noted that Peirce holds that we need to begin with the prejudices we have, since many of them are likely to be so convincing that we cannot subject them to real doubt. In his later writings, Peirce refers to what he calls his *critical common-sensism* (CP 5.438). Broadly put, it is the view that many of our beliefs and inferences are rooted in common sense, and thus they have the status of being beyond our current doubts, control, or criticisms (e.g., our belief that *fire burns*). Though we may now be unable to challenge them, we may be able to challenge many of our beliefs as we proceed in our investigations. Again, to question them, we would have to experience surprise or real doubt that would unsettle our strong convictions in them. With this in mind, Peirce holds that his pragmatism assumes the truth of critical common-sensism. His pragmatism is a way to clarify the meaning of an idea or conception by relating it to our habits, purposes, or conceivable experiential consequences. Increasingly, Peirce views self-control as a key component of his pragmatism. In 1905, he considers the absence of self-reproach to indicate whether we have done all we should have in our inquiries. In developing his

pragmaticism, Peirce regards it as “a method of reflexion having for its purpose to render ideas clear” (CP 5.13 n.1). By a method of reflexion, Peirce underscores how the method should allow us to see how our ideas could relate to possible experience and other familiar aspects of inquiry. By casting the method in terms of reflexion, Peirce aims to show why, “logical self-control is a perfect mirror of ethical self-control” (CP 5.419). That is, the more self-control we have, achieved in large part by thinking through the consequences of our ideas and preparing ourselves for the practical effects attached to them, the less self-reproach we will have. But now some questions crop up that require further research. How does Peirce’s references to *self*-control line up with his central notion of the *community*? Akin to that question, what role does the community have in Peirce’s pragmaticism and its emphasis on self-control? In a pair of thought-provoking statements from “What Pragmatism Is” (1905), Peirce maintains the following: (1) that when we reason, we are trying to persuade a future, critical self; and (2) that our “circle of society” is “a sort of loosely compacted person,” which is, in many ways, more important than the individual (CP 5.421). Peirce holds these two statements to be “all-important to assure oneself and to remember” when evaluating the rational merits of his pragmaticism. Both of these statements, (1) and (2), require further study, and they closely relate to Peirce’s communal inferentialism. The normative dimension of self-control and its bearing on Peirce’s communal approach demand further attention, and so I intend to undertake a project that clarifies these matters in further depth.

Before I conclude this study, it is worth having a brief summary of the chief themes from each chapter. Chapter One provided a reassessment and defense of Peirce’s case against Cartesian individualism. Chapter Two offered a way to evaluate Peirce’s rejection of the nominalist’s view of knowledge. It showed that the nominalist faces what I called the dilemma of

epistemic individualism. Chapter Three returned to the main problem of the “Fixation,” which is about how to fix belief in the community, however much that community might grow. The chapter proposed an alternative reading of the “Fixation” based on Peirce’s communal inferentialism. Chapter Four offered a way to explain Peirce’s view of truth as public by relating it to his communal inferentialism. Overall, I maintain that the chapters provide strong support for the claim I have sought to defend in this dissertation, which is that Peirce’s communal inferentialism provides us with the best way to appreciate the central reasons that Peirce relies on in his critique of epistemic individualism.

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