Peirce on Metaphysics and Common Sense Belief: A Challenge to Hookway's Account

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Abstract (not for publication)

In "Metaphysics, Science, and Self-Control" (2000[1989]), Christopher Hookway presents an interpretation of the purpose and methods of Peirce's metaphysics. On Hookway's account, Peircean metaphysics proceeds by articulating features of common sense upon which scientific hypothesis generation depends. This grants the metaphysician a critical orientation towards hypotheses from the special sciences which violate common sense. However, Hookway also claims that the role of common sense beliefs diminishes as the sciences move into areas of experience which are radically different from the areas in which human common sense evolved. At this point, the metaphysician is free to appeal to cutting-edge scientific results.

This paper sets out Hookway's account of Peirce's metaphysics, as developed in "Metaphysics, Science, and Self-Control," and challenges his claim that the role of the "common" diminishes as the sciences develop. With Hookway, I center my attention on Peirce's account of metaphysics in 1906's "The Basis of Pragmaticism in the Normative Sciences." There Peirce characterizes philosophy as "cenoscopy," the observational science of the common, and claims that metaphysics completes cenoscopy and "welds" into the special sciences. I argue that that characterization of metaphysics in terms of its relationship with other sciences requires us to account for (i) the difference between metaphysics and its neighbors, (ii) their common nature as "sciences," and (iii) their interactions with one another.

These three demands provide a scaffold for critical engagement with Hookway's interpretation. I argue that Hookway's account of the role of common sense in Peirce's metaphysics leads him to insufficiently account for the difference in methods which Peirce posits between metaphysics and the special sciences and for their appropriate interaction. I argue that a better interpretation of Peirce's metaphysics, and its interactions with the special sciences, is achieved by empha-

sizing Peirce's account of common experience, understood in terms of the experience which would be common to a scientific intelligence, rather than his account of common sense belief. I argue that common sense beliefs are only interesting to the Peircean metaphysician in so far as they provide access to common experience.

Biographical Note

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Introduction

In "Metaphysics, Science, and Self-Control," Christopher Hookway presents an interpretation of the purpose and methods of Peirce's metaphysics (Hookway [1989]200: 182ff).[i] This requires justice to apparently contradictory tendencies. On one hand, we must understand Peirce's claim that metaphysics should adopt scientific methods. On the other, we must deal with Peirce's claim that metaphysics is generated from logic and that the structure of thought tells us something about the structure of reality. Hookway's synthesis of these tendencies is one of his many contributions to our understanding of Peirce's own project and its relationship to other historical and contemporary philosophical projects. This paper presents Hookway's interpretation, which emphasizes the methodological role of common sense beliefs, and argues for an alternative which emphasizes common experience.

Following Hookway, I begin with Peirce's characterization of metaphysics in "The Basis of Pragmaticism in the Normative Sciences" (EP2:371ff). There, Peirce sets out his conception of metaphysics as the "final" or "completing" part of philosophy which "in places welds itself into idioscopy, or special science" (EP2:375/CP6.6). The position of metaphysics, between the rest of phi-

losophy, on one hand, and the special sciences, on the other, sets a series of constraints on any interpretation of what Peirce has in mind in the passage. These constraints will, in turn, help to clarify the role of common sense and common experience in Peirce's metaphysics.

First, we must account for the distinction between metaphysics and its neighboring disciplines. Second, we should be able to say what metaphysics shares with the other sciences. Third, we should articulate the interactions between metaphysics, the special sciences, and the rest of philosophy. That is, we should provide some account of how metaphysics passes on and receives material and results from its "upstairs" and "downstairs" neighbors. We must account for *difference, commonality,* and *interaction*.

In light of these constraints, I then present Hookway's account of Peirce's metaphysics. Hookway presents Peirce's claims about the relationships between philosophy, the special sciences, and metaphysics in particular, as motivated by concerns about epistemological circles which threaten our capacity for rational self-control. Peircean metaphysics is then introduced to articulate the common sense background of our theorizing and, in turn, to guide hypothesis generation in the special sciences and avoid vicious circularity. Hookway also suggests that, as the sciences develop, metaphysics will become increasingly open to results from the special sciences.

In Section Three, I challenge Hookway's interpretation by highlighting Peirce's conception of philosophy as "cenoscopy." Censocopy is the observational science ("-scopy") of the common ("ceno-" *via* the Greek κοινὴ). Where Hookway focuses on the role of common sense *beliefs* in his account of the common, I emphasize common *experience*. On the view I defend, Peirce only finds common sense beliefs interesting insofar as they provide access to common experience. I argue that this modification to Hookway's interpretation offers a more satisfactory answer to the three demands set out in Section One.

1. Peirce's 1906 Characterization of Metaphysics

"Metaphysics, Science, and Self-Control" begins by highlighting Peirce's 1906 characterization of metaphysics:

> *Metaphysics* is the proper designation for the third and completing department of cenoscopy, which in places welds itself into idioscopy, or special science. Its business is to study the most general features of reality and real objects. (EP2:375/CP6.6, italics in original)

The term "cenoscopy" is Peirce's term for the kind of philosophy "which rest upon familiar experience and does not search out occult or rare phenomena" (EP2:372). Metaphysics is the third part of philosophy in so far as it follows on from the normative sciences, especially logic, and phenomenology. Hookway summarizes this structure as follows:

> [Mathematics supports] the phenomenological elucidation of the categories which succeeds it in his ordering. The three normative sciences follow: aesthetics, ethics, and logic, in that order. Metaphysics then falls into place, belonging with the philosophical disciplines and somehow effecting a bridge from them to physics and the rest" (Hookway 2000: 183).

Many questions can be asked of this way of understanding the relationships between metaphysics and the other sciences. One of Hookway's interests is why metaphysics is required to explore "the most general features of reality and real objects." He notes that Russell or Quine would simply assign the role to physics (Hookway 2000: 183). But rather than turning straight to Hookway's account, it is worth pausing over the key features of Peirce's characterization of metaphysics. This will allow us to determine the questions which any full interpretation of Peirce's metaphysics ought to answer.

Beverley Kent argues that Peirce's work on the relationships between sciences is motivated by the

pragmatist desire to understand sciences in terms of their "conceivable practical effects." She suggests a method: "pick a science, and Peirce's scheme should reveal it in its [...] pragmatic meaning" (Kent 1987: 47). Kent argues convincingly that Peirce's attempts to provide pragmatic clarity through the classification of the sciences are directed to the science of logic (Kent 1987: 54). We adopts a similar approach towards Peirce's metaphysics.

As part of cenoscopy, Metaphysics is distinguished from the special sciences (idioscopy). The special sciences, unlike philosophy, search out "rare or occult" phenomena. There is thus a difference between the practice of metaphysics and of special sciences. This difference has something to do with the kind of experience appealed to. Any interpretation of Peirce's characterization of metaphysics should account of this difference. This is the first demand on interpretations of Peirce's metaphysics.

Second, we need to account for what makes metaphysics and the special sciences, sciences. Peirce takes philosophy and the special sciences to be theoretical sciences. Peirce is also famous for claiming that philosophy, and especially metaphysics, are in serious need of scientific methods (e.g. EP3:338–339/CP5.423). Philosophy, as Peirce thinks it ought to be done, must be in some sense scientific.

Peirce characterizes theoretical ("heuretic") science as "the concrete body of [scientists'] own proper activities, in seeking such truth [...] and in pursuing it by the most critically chosen methods, including all the help both general and special that they can obtain from one another's information and reflection" (EP2:372). This description foregrounds another theme in Peirce's characterization of metaphysics: that sciences share material with one another. This theme is present in 1906 insofar as metaphysics "completing" philosophy and "welding" into the special sciences suggests a flow from one discipline to the next.

On Peirce's view, problems will arise if we fail appropriately to restrict the flow between sciences. One family of errors of this sort of central interest to Peirce is psychologism. Psychologism uses psychological results to back up claims in normative logic. Indeed, it is not just the results of psychology which cannot function as 'principles' in logic. On Peirce's view, *no* result from a special science should be used as a principle in philosophy. However, the special sciences *do* provide materials to philosophy. These materials are variously described as applications, problems, and data for generalization (EP2:372; CP6.1). Peirce's restrictions do not prevent the special sciences from motivating, or being referenced in, metaphysics.

Peirce frequently presents metaphysics as applying the results of logic and the development of metaphysics is, in turn, taken by Peirce to be important for the continued development of the special sciences. On the other hand, we find scientific results being discussed in Peirce's metaphysical writings, and comments about metaphysical matter in the logical writings. The third interpretive demand is to account for both interactions in the structure Peirce presents: the interaction between metaphysics and the rest of philosophy and the interaction between metaphysics and the special sciences.

The 1906 characterization of metaphysics thus generates three demands on interpreters of Peirce's metaphysics: *difference*, *commonality*, and *interaction*. I now turn to Hookway's interpretation of Peirce's metaphysics with these constraints in mind.

2. Hookway on the Role of Peirce's Metaphysics

In "Metaphysics, Science, and Self-Control", Hookway directs himself to two key questions: "just what distinguishes metaphysical investigations from those which belong to the special sciences?" and "why did Peirce believe that he needed a metaphysics at all?" (Hookway 2000: 182–183). The

first question, concerning the difference between metaphysics and the special sciences, answers to part of the difference demand. The second question concerns Peirce's motivations for presenting his structural story about the role of metaphysics with respect to the other sciences.

In addition, Hookway is responding to work by Karl-Otto Apel, which presents a "transcendental" reading of Peirce's project (Apel 1981).[ii] Hookway worries about the "transcendental" language invoked by Apel. Hookway argues that this language "suggest[s] a methodological dualism [where] logic and semiotic make no use of the scientific method, their results being in some sense known a priori" (Hookway 2000: 186). That is, Hookway understands the difference between himself and Apel to be over the best way to put the methodological distinction between metaphysics and the special sciences. Hookway's claim against Apel is that his answer to the difference demand prevents a satisfactory response to the commonality demand.

Hookway acknowledges a distinction between "philosophical method and the method of science" (Hookway 2000: 186). However, it is not in terms of *a priori* and *a posteriori* reasoning. Hookway argues that both philosophy and the special sciences depend on "observation, experiment, deductive and abductive inference, and even a form of inductive reasoning" (Hookway 2000: 186). Both philosophy and the special sciences adopt the method of science in this broad sense. On Hookway's view, the difference between philosophy and the special sciences is found elsewhere.[iii]

To motivate the distinction between special science and philosophy, and to introduce the role of metaphysics, Hookway highlights two related circularity problems. These are, in the first instance, problems for the normative account of the methods of inquiry which forms the center of Peircean logic. First, Hookway holds that arguing from the results of the special sciences to normative claims about the legitimacy of methods of inquiry could lead to "incorrigible error" (Hookway 2000: 188). If a false special scientific theory backs up logic, and logic backs up the theory, we risk being unable to break out of the circle of error. This would, in turn, threaten our capacity for "critical self-

control" (Hookway 2000: 189).

The second problem concerns metaphysics directly and is, Hookway thinks, more serious. The argument sketched in the previous paragraph appeals to the possibility of self-control. But this suggests that inquirers are the kind of being for whom rational self-control is possible. If we are not the kind of things which could successfully control our reasoning processes, then Peirce's account of inquiry doesn't get off the ground. Further, it seems that an account of inquirers according to which rational self-control is possible would require a metaphysics of the self. If so, then we will be forced to appeal to metaphysics in logic and circularity threatens again (Hookway 2000: 188). This problem is more serious as it suggests that there are *unavoidable* and circularity-introducing metaphysical presuppositions of logic. The appeal to psychology, or to any other special science, is not unavoidable.

Hookway avoids this problem with a distinction. However, it is not the distinction between philosophy and the special sciences. Rather, Hookway distinguishes between pre-logical and post-logical sciences. In logic, the method of science is defended and formulated in such a way that it can be taken up by the post-logical sciences and used to provide normative guidance. The pre-logical sciences, including mathematics, phenomenology, aesthetics, and ethics, cannot themselves appeal to theoretical logic, but they can be recognized as "using the scientific method" in a non-reflective way (Hookway 2000: 188-9). The pre-logical sciences "do not require the kind of critical self-control which makes use of logical principles" (Hookway 2000: 189; see also Hookway 1985: 77-79). He presents two reasons for this.

The first reason concerns the subject matter of logic and can be illuminated by Peirce's claim that mathematics does not require logic. According to Peirce, mathematical reasoning is much more certain than reasoning in logic. This is, in part, because mathematics concerns all possible states of affairs rather than the actual world. Hookway notes that this interest in possibility partially extends to

Peirce's conception of logic and the pre-logical stages of philosophy. In Peircean logic we ask, for instance, what forms of reasoning could work in all possible states of a certain description (Hookway 2000: 189--190). It seems that investigation of the possible can be more free-wheeling than investigation of the actual world; perhaps, for instance, by virtue of the idea that the possible and the conceivable go together (see Legg 2012).

Second, Peirce argues that we have a collection of common sense beliefs which are products of experience but not of deliberate inquiry. These are, on Peirce's view, vague and not subject to genuine doubt. They include, for instance, the belief that nature is *in some respect* uniform (CP5.522). Such beliefs are less subject to doubt than logical principles and are relied on whenever we engage in inquiry. They can, Peirce thinks, be appealed to in philosophy without introducing self-control threatening circularity. On Peirce's view, if we are unable to genuinely doubt something, then it is not a failure of rational self-control to believe it (e.g. CP5.108–109/EP2:188).

Hookway notes that Peirce's logic generates regulative hopes. We *hope* that rational self-control is possible, that common sense beliefs won't lead us astray, and that logical principles can be successfully applied to reality. Metaphysics is introduced to tell a story about how these hopes could be satisfied. On Hookway's telling, Peirce thinks that "unless metaphysics can explain how minds possess the powers required for logical self-control, the results of logic are vitiated" (Hookway 2000: 191). Metaphysics, understood in this way, is not appealed to in logic. But without it we would have no sense of how creatures like ourselves could achieve logical self-control.

Hookway draws a methodological distinction between sciences which can appeal to the logical theory and those which rely on "acritical" common sense certainties or quasi-mathematical investigation of possible states of affairs. Metaphysics, then, attempts to tell a story according to which a logic developed from these resources could link up with a real world. This is the starting point for understanding how Hookway's interpretation answers the difference demand.

This doesn't yet reveal a distinction between the methodologies of metaphysics and of the special sciences. Metaphysics, like the special sciences, can appeal to the normative account of inquiry developed in logic. However, Hookway's account suggests a distinction insofar as metaphysics is tasked with telling a story about how the regulative hopes of logic could obtain. This is because metaphysics is concerned with the full range of situations in which inquiry is possible. This is not the orientation of special sciences, which deal primarily with the actual world rather than with possible worlds, and is closer to Hookway's description of the subject matter of mathematics and logic.

Hookway's answer to the commonality demand is much easier to state. On Hookway's view, the commonality between sciences is that they are derived from experience and can be described as deploying deduction, induction, and abduction. While the full experimental cycle of deduction, induction, and abduction is paradigmatically present in the special sciences, the same broad patterns can be found throughout the sciences, including the pre-logical sciences (e.g. Hookway 2000: 182).

The third demand requires more work. Hookway wonders how Peirce's various claims about interactions between the special sciences and metaphysics are supposed to hang together. On one hand, Peirce argues that the metaphysics of mind has no need to appeal to the results of scientific psychology. Instead, it appeals to common sense beliefs about the mind (e.g. EP2:420). Hookway quotes Pierce's characterization of these common sense beliefs as "those rough facts about the mind which are open to everyone's observation, and which no sane man dreams of calling into question" (NEM3:49; cited in Hookway 2000: 94). Hookway takes this approach to conflict with Peirce's claim that "our metaphysics should borrow conceptions from the latest and best scientific theories" (Hookway 2000: 194). He also takes it to be inconsistent with Peirce's practice of taking on the results of recent scientific work in order to articulate his account of matter (Hookway 2000: 194–195; see W8:171/EP1:339).

Hookway foregrounds Peirce's claim that higher sciences in the hierarchy of sciences ought to be

developed before lower ones. This is because the lower sciences appeal to the higher ones for principles. Hookway asks why Peirce claims that metaphysics ought to be developed before, say, physics (Hookway 2000: 193). He suggests that metaphysics is applied in physics and psychology in two ways. First, we have the relation between a more or less general subject. Peirce's evolutionary cosmology, focused on the question of how lawlike patterns develop, promises a general answer which would illuminate why we have the specific physical laws which actually apply (W8:99–100/EP1:287–288). Second, Peirce takes common sense, understood as instinctive, to generate our ability to generate successful hypotheses in the special sciences (e.g. CP7.382). Reflection on this common sense background then aids hypothesis generation. Metaphysics is one of the disciplines which engages in the reflection and criticism of common sense (Hookway 2000: 195). Hookway takes Peirce's metaphysics to have a critical function with respect to hypotheses in the special sciences: it allows us to see that certain hypotheses are not worth taking seriously.[iv]

Interestingly, Hookway argues that the interactions between metaphysics and the special sciences change over time because of shifts in the role of common sense. Hookway notes Peirce's claim that the natural sciences are pushing us in to a world in which our common sense is not at home (e.g. W8:99/EP1:287). The 'common sense' of interest to metaphysics might then, as the sciences develop, become the common sense of those engaged in scientific research. Given the development of the sciences, "it is now this scientifically refined conception of reality which is relevant to our attempts to formulate and evaluate hypotheses" (Hookway 2000: 196).

Perhaps this continues to be 'common sense' in so far is it is unconsciously developed in response to the shared experience of the relevant scientific community over time. This would be something like an affinity with a subject matter or set of techniques rather than a body of propositional knowledge (see Legg and Black 2020). This does not quite justify the use of *cutting edge* scientific results in one's metaphysical investigations, but it does provide a picture in which 'scientifically refined'

beliefs become more relevant to metaphysics.

The different levels of development of physics and psychology suggest that we should expect Peirce to be more likely to appeal to physical concepts as deployed by physicists in his metaphysics than to theoretical psychology. Physics was (and is) more developed that psychology. In both cases, metaphysics aids the sciences by elucidating and making explicit the conceptions of mind and nature which are being used to evaluate hypotheses in the relevant special science (Hookway 2000: 197).

If asked what metaphysics provides to the special sciences and what the special sciences provide to metaphysics, Hookway answers that metaphysics reflects on the background assumptions which guide hypotheses generation. If we fail to reflect on this background, then we can be led off track by poor hypotheses. We might, for instance, entertain hypotheses which have no positive grounding in common sense. In Peirce's system, metaphysics is the discipline which articulates one source of hypotheses: our general picture of the world. The special sciences, on the other hand, *can* provide information to metaphysics, but this depends on their level of development. In particular, in a developed science whose questions have moved far from their initial grounding in common experience, we may need to appeal to theoretical results.

Hookway is thus led to a position where the role of common sense in metaphysics is reduced as the sciences develop. That is, he rejects the strict hierarchical ordering which Peirce suggests in his initial characterization of metaphysics. Instead, Hookway offers a genealogical story in which we begin with common sense beliefs, filtered through logical and metaphysical reflection, and increasingly replace them with material from the special sciences as the relevant sciences develop. In so far as the genealogical story does not begin with specific physical or psychological theories, the circularity worry is avoided. While the sciences must begin with common sense beliefs, this origin is eventually outgrown.

To summarize, the role of metaphysics is generated by the demand for non-circular justifications for logic and the application of logic to the world. Metaphysics articulates and criticizes the background, initially the common sense background, from which special scientific hypotheses are drawn. Such a science must be distinct from the special sciences in so far as it deals with the 'background' which is assumed to get genuine special scientific work off the ground. It must be distinct from logic in so far as it criticizes and defends claims about the real world, albeit highly general ones, which are assumed by the special sciences. This satisfies the difference demand.

Hookway's answer to the commonality demand is simply to note the grounding of all theoretical reasoning in experience and the common patterns of reasoning present in both philosophy and the special sciences. The interaction demand is met with the account of the changing role of common sense beliefs over time.

3. Metaphysics as "Completing Department of Cenoscopy"

The package of interpretive views Hookway sets out is appealing. Hookway gives us a Peirce who can articulate a dependence of the special sciences on metaphysics without creating an armchair tyrant which bosses them around. We also get a respect for common sense without uncritical conservatism or the kind of anti-theoretical attitude characteristic some broadly Wittgensteinian approaches. However, I do not think it is the view which Peirce intended. In this section, I argue that we should focus more on common *experience* than common sense *belief* in our account of Peirce's metaphysics. This is to center Peirce's characterization of philosophy as "cenoscopy": the observational science of common experience.

I begin by drawing attention to a dissonance between Peirce's metaphysical claims and Hookway's interpretation. Peirce frequently makes modally strong metaphysical claims. These are hard to square with Hookway's understanding of Peircean metaphysics as articulating features of the com-

mon sense or the shared assumptions of this or that scientific community. I then suggest that we should instead follow an alternative thread from Peirce according to which philosophy aims at 'quasi-necessary' claims made on the basis of the experience common to any possible 'scientific intelligence.' That is, the experience which would be common to anything which can learn from experience. This leads to an understanding of metaphysics as investigating that which would have to obtain for inquiry, understood in the broad sense of the 'scientific intelligence,' to be successful. Having set out this picture, I show how it answers to the three interpretive demands outlined above.

Peirce makes metaphysical claims of high modal strength. For instance, Peirce sometimes makes claims about how the world *must* be. This is particularly clear in, for instance, "metaphysics consists in the results of the absolute acceptance of logical principles not merely as regulatively valid, but as truths of being" (CP1.487, 1896). It is also clear in his adoption of the principle that any *sui generis* idea, an idea which cannot be analyzed into other ideas, which appears in experience or thought *must* in some respect be real otherwise it would not even be able to appear. The use of principles like this, even if they are framed as hypotheses, does not seem to be characteristic of the special sciences. In particular, the notion of an *unanalyzable idea* and the reasoning required to demonstrate that an idea is unanalyzable, is not the kind of thing which would come up or be found by appeal to special experiment.

This should direct our attention to the distinction between metaphysics and the special sciences. Hookway tends to write as if the methodological distinction between philosophy and the other sciences is not a significant one. For instance, he takes the question of what it takes to avoid "ontological metaphysics," metaphysics of the sort excluded by the pragmatic maxim, to be "easily answered." As he puts it, the methods of metaphysics "[do] not differ in kind from those used in the special sciences—except that the latter make more use of special observations and controlled experiments, while the former normally draws its data from frequently unnoticed features of everyday ex-

perience" (Hookway 2000: 183). That is, the distinction is one of more or less use of special experimentation. I suggest that it is not quite this easy to see how the "methods used in the special sciences" are to be applied in metaphysics, or indeed, in philosophy in general.

Peirce does take all thought to come from experience in some sense and this extends to modal claims. For instance, we find Peirce considering whether there are any characteristics which apply to any mathematical hypothesis, and saying that if there is any such necessity, then it "must spring from some truth so broad as to hold not only for the universe we know but for every world that poet [sic] could create." He goes on to say that "this truth like every truth must come to us by the way of experience (CP1.417, 1896).

A particularly clear indication of both the high modal strength of cenoscopic claims and of the methods appropriate to cenoscopy comes from a discussion of logic:

> Logic in its general sense, is, as I believe I have shown, only another name for *semiotic (σημειωτική)* the quasi-necessary, or formal, doctrine of signs. By describing the doctrine as "quasi-necessary," or formal, I mean that we observe the characters of such signs as we know, and from such an observation, by a process which I will not object to naming Abstraction, we are led to statements, eminently fallible, and therefore in one sense by no means necessary, as to what *must* be the characters of all signs used by a 'scientific' intelligence, that is to say, by an intelligence capable of learning by experience. [. . . By abstraction] we can reach conclusions as to what *would be* true of signs in all cases, so long as the intelligence using them was scientific. [...] Now the whole process of development among the community of students of those formulations by abstractive observation and reasoning of the truths which *must* hold good of all signs used by a scientific intelligence is an observational science, like any other positive science, notwithstanding its strong contrast to all the special sciences which arises from its aiming to find out what *must be* and not merely what *is* in the actual world. (CP2.227, c. 1897, italics in original)

This provides a clear distinction between the special sciences and logic in so far as the latter deals with what *must be* and not merely with what *actually is*.[v] Peirce's metaphysics, too, should be thought of as aiming at *quasi*-necessary claims. Logic tells us what *must be* the case regarding signs and operations with signs, while metaphysics explores what it *must be* for such operations to connect up with or be successful in reality.

The same discussion from 1897 also suggests something of the method of cenoscopy. Peirce introduces the idea of a 'scientific intelligence,' which he defines as an intelligence which can learn from experience. The ellipses hide a description by Peirce of one such case of abstraction, in which someone imagines whether they would maintain a certain desire if they were able to gratify it. The process works, Peirce says, by imagining various such states of affairs and observing one's imagined reaction.

The Harvard Pragmatism Lectures of 1903 offer a more substantive example. In the course of the second lecture of the series, Peirce attempts to show that we must take experience to include more than just a play of feelings. It must also include direct experience of external resistance. In order to make this argument, Peirce begins with the familiar experience of being surprised. Any reader following will be able to come up with an example from their own history where they have been surprised. He asks us, also, to imagine a few scenarios. For instance, sailing along in a boat and suddenly, without warning, striking a rock (EP2:154/CP5.51). These examples develop our ability to discriminate between the play of feeling and the experience of resistance. We are also to note that such experiences are necessary in any process of learning we can conceive of. The basic thought is that without the world 'pushing back' as presented in these examples, there would be no constraint on our beliefs and, consequently, no learning. Insofar as we fail to be able to imagine learning from experience without resistance, we conclude, by means of a fallible abstraction, that surprise (and thus resistance) is a necessary feature of the experience of any scientific intelligence.

These examples do not quite get us to the role of, and methods appropriate to, metaphysics. This transition is simply a matter of turning attention from the general structure of experience or sign use, to the general structure of reality in which it is possible to learn from experience. For instance, Peirce's claim that any scientific intelligence must deploy general ideas which are not reducible by nominalist strategies, leads Peirce to argue that general ideas are really operative in the world. This is an inference which goes from a restriction on scientific intelligences to a metaphysical claim about reality.

On the other hand, the movement from logic to metaphysics can be used to loosen restraints on scientific theorizing. Consider Peirce's argument, in logic, that we should take probabilistic explanation to offer a perfectly acceptable form of intelligibility and, in metaphysics, that a world in which absolute chance operates is intelligible. This move allows for a loosening of the constraints on hypothesis generation in physics (e.g. W4:548/EP1:219). This moves from a broadened conception of intelligibility to a broadened conception of metaphysical possibilities.

The above is sufficient to return to our three initial interpretive demands. If asked what the *difference* between metaphysics and the special sciences is, we can point, with Peirce, to the increased modal strength of metaphysics. This is a subject matter distinction. Metaphysics aims at claims about *any* reality intelligible to a scientific intelligence. The kind of experience appealed to in order to investigate this subject matter is different: we engage in quasi-mathematical reasoning about possible situations by a kind of abstraction. The difference between logic and metaphysics is most obvious in the shift in subject matter from possible thoughts to possible worlds.

The *commonality* between metaphysics and the other sciences is simply that they depend on observation and are directed to discovering the truth as in Peirce's description of the "heuretic sciences," presented above. This is consistent with large differences in the methods appropriate to different observational sciences. In particular, it is compatible with a wide range of quasi-necessary forms of

reasoning. Such reasoning may be suspect to the more empirically minded philosopher, but fits within Peirce's philosophical framework.

The *interaction* between metaphysics and the rest of philosophy is baked in to the definition of metaphysics. If metaphysics is to articulate what an intelligible world might look like, then we need some notion of intelligence and intelligibility. This comes from logic. It remains possible for metaphysics to provide suggestions to logic or puzzles for logic, but Peirce's logic is in the driver's seat. The interaction between metaphysics and the special sciences is present in a few ways. First, Peirce assumes that everyone has some, likely inchoate, metaphysics (e.g. CP1.129). That is, everyone has some idea of what it would take a phenomenon to be intelligible. One way in which a theoretical metaphysics of the sort Peirce proposes is supposed to help is by showing that assumed constraints on intelligibility are unnecessary. One might assume, to return to an example close to Peirce's heart, that only deterministic explanations count as real explanations. Peirce's metaphysics argues against this, in part, on the grounds that it is not required by our logic.

The key departure from Hookway's interpretation is, as already noted, in the relevant notion of the common. The emphasis on the common in the sense of *common sense belief* and the common in the sense of *common experience* are importantly distinct. Both are central to Peirce's philosophy, but the latter is dominant in Peirce's conception of philosophy as "cenoscopy." I have argued that Peirce's notion of the common is that which is common to all possible inquirers. On Hookway's view, the "commonness" of metaphysics reduces over time as the special sciences develop and begin to explore domains in which human instinct is a less sure guide. On the view I am attributing to Peirce, the "commonness" of metaphysics increases over time as we gain a greater and greater understanding of the range of ways in which the world could be intelligible. In the course of this development, we move from the idea of that which is common to our local community towards the abstract idea of the 'scientific intelligence.' On the story Hookway tells, the development takes us

from that which is common to our local community (or perhaps the human organism) to that which is common to various smaller communities of scientists.

With the notion of common experience, a different story about the role of metaphysics in the physical sciences is possible. We have seen Hookway's approach make use of Peirce's claim that the physical sciences increasingly inhabit a world alien to our instincts. Given this, we cannot rely on our common sense beliefs to the extent that we have done in the past. But, unlike Hookway's approach, which increasingly appeals to a small community of inquirers, the notion of a "scientific intelligence" suggests that metaphysics will investigate alternative ways in which we could take something to be intelligible. A stall in physics, as Peirce understands it, might be unblocked by abstract logical and metaphysical reflection on the notion of a scientific intelligence and the kind of world in which a scientific intelligence could operate.

Common sense is clearly an important idea to Peirce. He famously describes his pragmatism as a form of "critical common-sensism." I think it is best to think of Peirce as interested in common sense *because* it provides access to features of experience which ought to be common to all scientific intelligences. Consequently, the notion of common experience does not go away, even if the sciences move beyond those areas of reality in which our evolved instincts and common sense beliefs are most at home. As Peirce says, "the difficulty is to determine what really is and what is not the authoritative decision of common sense and what is merely *obiter dictum*" (CP1.129). This determination is made, I argue, by appeal to common experience.

Finally, the alternative interpretation gels with another thread in Peirce's discussions of meta physics which is not emphasized in Hookway's account. In another text from the late 1890's, Peirce argues that metaphysics out to provide "pigeon-holes" in which we can "file important facts." In particular, he argues that our "metaphysical pigeon-holes should not be so limited as to exclude" the hypothesis that there is "absolute spontaneity in nature" (CP1.158). That is, Peircean metaphysics

should involve pushing out beyond currently accepted conceptions of what intelligibility consists in, in order that those involved in the special sciences might have appropriate "pigeon-holes" in which phenomena can fit. This is an enabling function of Peircean metaphysics. It is a distinct emphasis from Hookway's, which focuses on metaphysics as a *test* for the success of logic.

The resulting view shares much with Hookway. In particular, we maintain the connection between metaphysics and hypothesis generation in the special sciences. We also hold on to the broad connection between metaphysics and logic and the interest in rational self-control and the avoidance of vicious circularity. However, as sketched above, two very different conceptions of the common are in play and lead to quite different attitudes to the difference between philosophy and the special sciences.

Conclusion

This paper has presented Hookway's interpretation of the purpose and methods of Peirce's metaphysics and challenged it on the basis that it over-emphasizes common sense belief at the expense of common sense experience. I began in the same place Hookway begins in his "Metaphysics, Science, and Self-Control," namely, with Peirce's 1906 characterization of metaphysics as the completing department of cenoscopy. This characterization of metaphysics suggests that there is a *difference* between metaphysics and its immediate neighbors in the classification of the sciences, that there is a *commonality* insofar as metaphysics, philosophy and the specials sciences are all sciences, and that there are important *interactions* between metaphysics and its neighbors. I argued that any interpretation of Peirce's metaphysics must capture all three dimensions.

Having set out these three dimensions, I presented Hookway's account of Peirce's metaphysics. I showed how Hookway emphasizes the role of rational self-control in Peirce's philosophy and how

metaphysics emerges as a discipline which, initially, articulates features of our common sense beliefs which are in the background of hypothesis generation in the special sciences. The role of metaphysics, as part of the story of non-circular hypothesis generation in the special sciences, distinguishes it from the special sciences. While the focus on general features of *reality* rather than general features of *thought* distinguishes it from logic. However, I also indicated how Hookway takes the role of common sense to diminish over time.

Having presented Hookway's approach, I defended an alternative account of the common. I argued that, rather than focusing on common sense beliefs, we ought to focus on common experience in the sense introduced by Peirce's discussion of the "scientific intelligence." That is, we ought to think of the common experience invoked in cenoscopy as experience common to anything which could learn from experience. I suggested that this has the benefit of making sense of the modal strength of Peirce's metaphysical claims and of the ongoing significance of philosophy for hypothesis generation in the special sciences.

The account of Perice's metaphysics which I prefer has further consequences which I have not been able to set out here. I simply note that it is more friendly to the idealist and theistic themes in Peirce's work. This is particularly clear in its emphasis that reality is intelligible in a larger sense than explained by the coevolution of our mental faculties and the environment we inhabit. This comes with the shift from emphasis on common sense and instinct to emphasis on the experience of the scientific intelligence. Attempts to provide a metaphysical account of this intelligibility can lead, and do at times lead Peirce, to speculations which are more characteristic of idealism and classical theism than they are to contemporary naturalisms. Whether this is a positive feature of the position defended here is left up to the judgment of the reader.

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i In what follows, I will use “Peirce’s metaphysics” as shorthand for “Peirce’s account of the role and purpose of metaphysics.” I do not mean to refer to, say, Peirce’s evolutionary cosmology or any other set of specific “first order” metaphysical claims. Another way of saying this is to say that the topic of the paper is Hookway’s interpretation of Peirce’s *meta*metaphysics. While this terminology fits with some more recent discussions in the philosophical literature (e.g. Tahko, 2015), I will leave the additional “meta” to the imagination of the reader.

ii I hope it is not out of place here to mention that, during my doctoral supervision sessions, Chris would sometimes share details of his presentation of this material. I believe it was his first presentation to the wider world of Peirce scholars after becoming interested in Peirce while studying at Oxford. Chris’s humility and his attentiveness to those he addressed were particularly notable in his telling of these stories.

iii Hookway does allow that there is a kind of “relative a priority” in Peirce’s philosophy (Hookway 2000, 186).

iv Hookway takes this to be something akin to Wittgenstein’s criticism of hypotheses in psychology on the basis that they embody confusions engendered by a failure to properly reflect on everyday language use (Hookway 2000: 196).

v Interestingly, Hookway acknowledges this in the case of logic in later writings (e.g. Hookway 2000: 99).