Knowability, the end of inquiry, and epistemic hope: Outline for a Peircean response to Fitch's paradox

Cognoscibilidade, o fim da investigação e esperança epistêmica: Delineamento para uma resposta peirciana ao paradoxo de Fitch

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Abstract: Fitch's paradox establishes the claim that if all truths are knowable, then all truths are known. Peirce's pragmatist epistemology is committed to the antecedent claim, and so it entails the unintuitive consequent, a conclusion that can be seen as a decisive objection against Peirce's epistemology. In this paper, I argue that, by modifying Peirce's finitist account of inquiry into an infinitist account, key aspects of his epistemology can be saved from this objection, including Peirce's epistemic theory of truth, his anti-skeptical fallibilism, his anti-foundationalism, and his reliance on epistemic hope.

Keywords: Fitch. Peirce. Knowability. Paradox. End of inquiry. Skepticism. Hope.

Resumo: *O paradoxo de Fitch determina a alegação que se todas as verdades são cognoscíveis, então, todas as verdades são conhecidas. A epistemologia pragmatista de Peirce está comprometida com a alegação antecedente e, assim, envolve o consequente não intuitivo, uma conclusão que pode ser considerada como uma objeção decisiva contra a epistemologia de Peirce. Neste artigo argumento que, ao modificar a explicação finitista da investigação para uma explicação infinitista, aspectos-chave de sua epistemologia podem ser resgatados dessa objeção, inclusive a teoria epistêmica de verdade de Peirce, seu falibilismo anticético, seu antifundacionalismo e sua dependência na esperança epistêmica.*

Palavras-chave: *Fitch. Peirce. Cognoscibilidade. Paradoxo. Fim da inquirição. Ceticismo. Esperança.*

Introduction

Almost a half-century after the death of Charles S. Peirce, Frederic Fitch published his article, "A Logical Analysis of Some Value Concepts."[1] Although overlooked in the years immediately following its publication, Fitch's article has since been recognized as offering one of the stronger critiques of certain anti-skeptical empiricist epistemologies.[2] In particular, epistemologists have focused on two related formal

1 See Fitch, "A logical analysis"; also Church, "Referee reports."

2 For more on the reception of Fitch's "A logical analysis," see SALERNO, 2009, p. 1-10.

proofs that would seem to establish the falsity of the *knowability thesis*, the claim that all truths are knowable. Since the 1980s, a small literature has developed around these proofs, but in that time few epistemologists have inquired into how the proofs affect the sort of pragmatist epistemology developed by Peirce.[3] This paper will consist of just such an inquiry.

The value of this inquiry will not be purely, nor even primarily, historical in nature. Peirce's ideas have been hugely influential throughout the course of twentieth- and twenty-first-century philosophy, directly influencing philosophers as varied as John Dewey, W. V. O. Quine, and Jacques Derrida; and indirectly influencing large swaths of the contemporary pragmatist, analytic, and continental traditions. In this manner, Peirce's ideas are very much alive to this day, but with this continued life *within* contemporary philosophy comes a continued responsibility *to* contemporary philosophy. In its own small way, the following inquiry lives up to this responsibility by grappling with the issues raised by Fitch's proofs.

To do this, I begin by outlining in §2 the more problematic of Fitch's two proofs, the modal collapse proof. I then turn, in §3, to Peirce's own epistemological ideas. Since Peirce's essays from 1868-1869 and 1877-1878 are his most widely influential,[4] I focus primarily on his ideas from these early essays, and offer only a few brief comments on his later writings when necessary. Ultimately, I argue that as Peirce presents it, his End of Inquiry story is an inadequate response to the paradoxical implications of the modal collapse proof. I begin my own response to Fitch's paradox in §4 by proposing three interrelated revisions to Peirce's End of Inquiry story. In §§5-6, I argue that these revisions dissolve the paradoxical implications of the modal collapse proof, all while not decisively threatening the anti-skeptical upshot of Peirce's epistemology (§5) and while offering strong abductive support for a broadly anti-foundationalist epistemology (§6). Together, §§4-6 will outline the basics of *an aspirational epistemology that prioritizes hope over knowledge*.

1 Fitch's paradox

For a certain sort of empirically minded philosopher, the claim that all truths are knowable is the cornerstone to their anti-skeptical epistemology. Whereas the skeptic is in the business of claiming that there are truths that cannot be known, this sort of philosopher argues that any truth that cannot be known cannot rightly be considered a truth at all. By these philosophers' lights, if the skeptic is talking about something that not only *is not known*, but *cannot in principle be known*, then the skeptic is simply talking non-sense, and the skeptical challenge is not wrong, but wrong-headed. One can find a view relevantly similar to this in the works of such philosophers as Berkeley,[5] Kant,[6] A. J. Ayer,[7] and—as we will see in §3—Peirce.

3 For one of the few articles addressing this issue explicitly, see HILPINEN, 2004, p. 150-167.

4 See Peirce, W2:193-272 and 3:242-338. For the remainder of this paper, references to the *Writings of Charles S. Peirce* will be of the form W#:##, where the number before the colon is the volume number and the number(s) after the colon is the page number(s). Similarly, references to *The Essential Peirce* will be of the form EP#:##.

5 See BERKELEY, *Principles*, p. 103-104.

6 See KANT, A105.

7 See AYER, 1952, p. 34-38 and p. 5-16.

The claim that all truths are knowable, hereafter referred to as the *knowability thesis*, is also the starting point for both of Fitch's proofs. One proof shows how a commitment to both the knowability thesis and the claim "Some truths are not known" entails a contradiction, while the other shows how a commitment to the knowability thesis entails a commitment to the claim "All truths are known". Going forward, I will focus exclusively on the second proof, which I will refer to as the *modal collapse proof*.[8] This decision will not make my philosophical task any easier; however, because the modal collapse proof is premised solely on the knowability thesis, this decision will make my presentation both clearer and more concise.

Although the modal collapse proof is usually presented formally, for my purposes it will be more to the point for me to present it informally. Nevertheless, I have included the formal presentation of the modal collapse proof in the following note.[9] It may be of some help for my reader to look through this presentation while reading the following two paragraphs.

The modal collapse proof begins by assuming the knowability thesis—that all truths are knowable. From there, we can derive that it is impossible for a subject S to know the following conjunction: that a proposition *p* is true and that S does not

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8 For more on the first proof, see KVANVIG, 2006, p. 7-14.

9 In the following formal presentation, I make use of the general proofing system from Virginia Klenk's *Understanding symbolic logic*. '∀' and '∃' perform their usual function of representing universal and existential quantification, respectively. Similarly, '◇' and '□' represent possibility and necessity, respectively (for more, see KONYNDYK, 2008, Ch. 2). 'Kx' represents the knowledge operator, which captures the ordinary language statement 'x is known by someone at some time'. Finally, the *prima facie* uncontroversial epistemic principles I will use in the proof are formalized as follows (for more, see RESCHER, 2001, p. 10-11):

Knowledge Implies Truth (KIT): Kp ⊢ p

Knowledge Distribution (K-Dist): K(p & q) ⊢ (Kp & Kq).

(1) ∀p (p → ◇Kp)	CP Assume	
(2) Flag m	UG Sub-Proof	
(3) K(m & ~Km)	IP Assume	
(4) Km &K(~Km)	K-Dist, 3	
(5) Km & ~Km	KIT, 4	
(6) ~K(m & ~Km)	IP, 3 through 5	
(7) □~K(m & ~Km)	Nec, 6	
(8) ~◇K(m & ~Km)	Dual, 7	
(9) ∀p (~◇K(p & ~Kp))	UG, 8, p/m	
(10) Flag n	UG Sub-Proof	
(11) (n& ~Kn) → ◇K(n & ~Kn)	UI, 1, (n & ~Kn)/p	
(12) ~◇K(n & ~Kn)	UI, 9, n/p	
(13) ~(n& ~Kn)	MT, 11 and 12	
(14) ~n∨ ~~Kn	DeM, 13	
(15) ~n∨ Kn	DN, 14	
(16) n⊃ Kn	Imp, 15	
(17) ∀p (p ⊃ Kp)	UG, 16, p/n	
(18) ∀p (p → ◇Kp) ⊢∀p (p ⊃ Kp)	CP, 1 through 16	Q.E.D.

know that *p* is true. The reason for this hinges on the *prima facie* uncontroversial epistemic principles that (a) a subject's knowing a conjunction implies his knowing the individual conjuncts and (b) a subject's knowing something implies the truth of that something.[10] From (a), we see that, if S were to know the above conjunction, S would know that *p* and S would know that he does not know that *p*. And from (b), the second conjunct can be simplified to the first-order claim, S does not know that *p*. However, this simplified claim is in direct contradiction to the first conjunct, and therefore the original form of conjunctive knowledge is not possible.

At this point, we have established the two claims that we need to derive our final conclusion. The first is the knowability thesis, which is assumed as a premise, and the second is the claim that it is not possible for S to know the conjunction: *p* and S does not know *p*. Although in ordinary language the knowability thesis is usually expressed by the statement "All truths are knowable", its internal logic is better exemplified by the statement "for any x, if x is true, then x is knowable". Keeping this second statement in mind, the knowability thesis tells us that if the conjunction—*p* and S does not know *p*—is true, then the conjunction is knowable. But since the conjunction is not knowable, we now know that the conjunction is not true. Since it is not the case both that *p* is true and that S knows that *p*, it follows from a few rules of first-order logic that if *p* is true, then S knows that *p*. Since *p* stands for any proposition, this conclusion generalizes to the claim "All truths are known."

Given this final conclusion, it is no wonder that the modal collapse proof is seen as an objection to any philosophical theory committed to the knowability thesis—if we know anything, it is that there seemingly must be things we do not know but could. But beyond this, there is a more general air of paradox to the proof. Even assuming that the knowability thesis is false, the modal collapse proof establishes the conditional "If all truths are knowable, then all truths are known", still a highly unintuitive result that collapses possibility into reality in a seemingly problematic way.

Within the literature, there are four basic strategies for resolving this paradox: first, one can deny or weaken the knowability thesis;[11] second, one can reject an inferential rule of modal, epistemic, or first-order logic used within Fitch's proof;[12] third, one can show that the use of an inferential rule is limited;[13] or fourth, one can argue that the result of the modal collapse proof is, despite appearances, not paradoxical.[14]

Looking forward, I will argue that given how Peirce frames his End of Inquiry story, his best option is to pursue the fourth strategy. However, this strategy will ultimately fail Peirce, and so in §§4-6 I will pursue a mixed strategy. I will argue that one level of Peirce's End of Inquiry story lends itself to a combination of the first and second strategies, while the other level lends itself to the fourth strategy.

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10 For more, see RESCHER, 2001, p. 10-11.

11 See KELP and PRITCHARD, 2009; and RESTALL, 2009.

12 See KVANVIG, 2006, p. 89-153.

13 *Idem*., p. 56-88.

14 Think of Berkeley's view that God perceives everything. See BERKELEY, 2010, p. 158.

2 The paradox's impact on Peirce's Epistemology

Before I begin outlining my Peircean response to Fitch's paradox, I will outline Peirce's early End of Inquiry account of truth. In doing so, I will demonstrate that Fitch's paradox is a legitimate challenge to the early Peirce's epistemology, which in turn will motivate my response in §§4-6.

2.1 Peirce's Epistemology and the end of inquiry

In his essays from 1868-9 and 1877-8, Peirce sees truth and reality to be two intimately related concepts. For instance, in "How to Make Our Ideas Clear" he states that "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."[15] Unsurprisingly, for Peirce truth gets ascribed to beliefs while reality gets ascribed to objects, and true beliefs are about real objects.

What is surprising about Peirce's account of truth and reality is how he defines what we mean by "truth". The characteristic Peirce associates with truth is not a metaphysical or ontological relation of correspondence between a belief and reality, nor is it the internal coherence relations between systematic beliefs. Instead, for Peirce what makes a belief true is its relation to certain human practices. In motto form, truth is what is believed at the end of inquiry.

As I take it, this is one of Peirce's key insights concerning truth. However, by framing things in terms of the "fated" results of inquiry, Peirce leaves his insight so indefinite as to border on mystification. To help, Peirce expands on his insight in "Some Consequences of Four Incapacities":

> The real, then, is that which, sooner or later, information and reasoning would finally result in, and which is therefore independent of the vagaries of me and you. Thus, 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 in knowledge.[16]

This passage highlights the point, emphasized by Cheryl Misak, that Peirce consistently formulates his End of Inquiry story subjunctively.[17] Peirce's claim is not that all true beliefs are actually believed by some community that has actually engaged in an indefinitely extended inquiry. Instead, Peirce's claim is that, under the assumption that humans will inquire into a certain issue indefinitely, the truth is what *would* be believed at the end of that inquiry. This assumption need not actually be met for it to be the case that were it met, truth would be the result. The fate Peirce has in mind guides *hypothetical* future inquiry, not necessarily *actual* future inquiry.

However, the idea that fate guides hypothetical inquiry may still be disconcerting. This is where Peirce's conception of inquiry as being *scientific* comes

15 W3:273.

16 W2:239.

17 See MISAK, 1991, p. 10.

into play. As Peirce puts it in "The Fixation of Belief," the "fundamental hypothesis" of scientific inquiry is:

> There are real things, whose characters are entirely independent of our opinions about them; those realities affect our senses according to regular laws, and [...] by taking advantage of the laws of perception, we can ascertain by reasoning how things really are.[18]

For Peirce, the reality of the objects under inquiry guarantees that were inquiry to continue long enough into those objects, evidence for their real qualities would eventually turn up. In this way, the fate he associates with inquiry is not code for some philosopher's magic, but instead for the regular laws inherent to real objects.

With this much cleared up, there is still the vexing issue of how long Peirce thinks future inquiry would need to proceed. In describing the time spans he has in mind, Peirce often uses the word "indefinite",[19] an unfortunately ambiguous term that can designate either *finitely* indefinite or *infinitely* indefinite spans. Furthermore, Peirce's general word choice throughout the major passages at W2:239 and W3:274 is a mixed bag, at points seeming to imply a finite span, at others an infinite span, at still others maintaining the ambiguity. Luckily, in later writings Peirce clearly and forcefully comes down on the side of a finitely indefinite span, claiming that "practically, we know that questions do generally get settled in time, when they come to be scientifically investigated."[20] For the remainder of this paper, I take this to be Peirce's settled opinion,[21] although I will argue below that it ought not to be.

2.2 Peirce's Epistemology and Fitch's paradox

Peirce's stance on this last issue leaves him at a significant disadvantage when trying to address Fitch's paradox. This is because (a) the subjunctive formulation of his account of truth commits him to the knowability thesis, while (b) his insistence that inquiry takes a finitely indefinite period of time leaves him only one particularly unsatisfying strategy for countering Fitch's paradox. In the remainder of this section, I will sketch out why (a) and (b) are the case.

Starting with (a), it is fairly straightforward to see how Peirce is committed to the knowability thesis. In order for truth to be what *would be* believed *were* inquiry continued indefinitely, it has to be *possible for* the truth to be believed. Additionally, a true belief gained through proper inquiry will constitute knowledge because what makes inquiry *proper* is that it provides justification *proper to* knowledge. Therefore, it must be possible for the truth to be known, even if it would only be known at the end of inquiry.

And lest we think that Peirce gives himself an out by claiming that the truth of some propositions is beyond the reach of inquiry, we can see that this is not the case. This is because for Peirce, our practice of inquiry commits us to the hope that

18 W3:254.

19 See W2:239, W3:274, and W8:114.

20 EP2:420. A similar claim is made at EP2:44.

21 For opposing views, see COOKE, 2006, p. 33 and p. 100-127; also FARBER, 2005, p. 545-546.

the truth of all propositions can be determined through inquiry—even propositions concerning "all the minute facts of history, forgotten never to be recovered, […] the lost books of the ancients, […] the buried secrets."[22] Peirce does not think that we will be left suspending judgment at the end of inquiry because it would be "unphilosophical to suppose" otherwise.[23] With this, we see that Peirce is committed to the knowability thesis. As he puts it, "there is nothing, then, to prevent our knowing outward things as they really are."[24]

From here, Peirce's only obvious response to Fitch's paradox is to argue that the result of the modal collapse proof is not actually paradoxical. By framing his End of Inquiry story subjunctively, Peirce can take recourse to his commitment to scholastic or Scotistic realism. To go over this commitment in detail would be beyond my present purposes,[25] but what is important is that according to this commitment "a subjunctive conditional is determinately correct or incorrect," in the sense that "would-be" states of affairs (i.e. those described in the antecedent or consequent of a subjunctive conditional) are as real as the "actually-ares" of indicative statements.[26] If this is right, then all truths really are known on Peirce's theory, if not by actual inquirers then by subjunctive, but no less real, would-be inquirers. Therefore, it would be appropriate for Peirce to reinterpret the '$\Diamond$' in the formal proof from note 9 above as signifying subjunctivity,[27] and to reinterpret an absence of a modal operator as signifying reality. Such a reinterpretation leaves the conclusion of the modal collapse proof (that if something is subjunctively knowable then it is really known) as nothing more than a restatement of his scholastic realism.

However, this response simply delays the issue and does not resolve it. True, if the formal proof is reinterpreted in terms of subjunctivity and reality then Peirce's scholastic realism offers him an adequate response to Fitch's paradox. However, an equally appropriate reinterpretation is to take the '$\Diamond$' as signifying subjunctivity and to take an absence of a modal operator as signifying actuality of the sort that Peirce keeps distinct from subjunctivity (and not reality of sort that has actuality and subjunctivity as its species). Once we do this, we are back where we started, with the paradoxical and anti-Peircean conclusion that Fitch's proof collapses the modal distinction between actual reality and subjunctive reality.[28] Barring an account of why this distinction survives the modal collapse proof, Peirce's response to Fitch's paradox is helplessly insufficient.

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22 W3:274.

23 W3:274.

24 W2:239.

25 For more focused discussion of Peirce's scholastic realism, see BOLER, 2004; BOLER, 2005; FRIEDMAN, 1995; ALMEDER, 1973; MISAK, 1991, p. 8-12.

26 MISAK, 1991, p. 10.

27 For more on the relation between possibility and subjunctive conditionals in Peirce's scholastic realism, see FRIEDMAN, 1995, especially p. 381-386.

28 For why this conclusion is anti-Peircean, see Friedman's discussion of embodied and unembodied qualities at FRIEDMAN, 1995, p. 375-381, as well as her discussion of actual facts and counterfactual cases at FRIEDMAN, 1995, p. 381-384.

Despite this grim conclusion, I argue in §§4-6 that there is still hope for a response to Fitch's paradox that keeps intact important aspects of Peirce's epistemological project.

3 Preface to my Peircean response

Before I can provide my own, Peircean response to Fitch's paradox, I will have to make three interrelated revisions to the early Peirce's epistemology in order to save what I take to be his essential epistemic insights. In this section I will rehearse, in a highly programmatic way, what these revisions amount to and what insights I take to be essential. The justification for my claims in this section will come in holistic fashion across the final two sections.

The first revision that my Peircean response requires is to insist that inquiry demands an *infinitely* indefinite period of time, not a finitely indefinite period. Although this goes against Peirce's explicit statements in his later writings,[29] I claim that this is still within the spirit of Peirce's epistemology because the passages from Peirce's early writings do not clearly rule out the need for an infinitely indefinite period of time.

The second revision consists in weakening the knowability thesis to what I will call the *justifiability thesis*, the claim that all truths are justifiable. I take this to be in the spirit of Peirce because of the tight connection he maintains between truth and inquiry.

Finally, the third revision consists in drawing a stronger distinction between individuals in the process of inquiring and those individuals we take to be at the end of inquiry. Whereas Peirce's theory associates real inquirers (i.e. actual inquirers and subjunctive would-be inquirers) with both stages of inquiry, I exclude real inquirers from the latter, end-of-inquiry stage. Instead, I claim that inquirers who have reached the end of inquiry are ideal entities that establish certain epistemic aspirations. I structure my Peircean response around this distinction, discussing the real inquirers who are in the midst of inquiry in §5, and the ideal inquirers who have reached the end of inquiry in §6.

These revisions constitute a shift away from Peirce's *finitist* account of inquiry to my own *infinitist* account. However, I make this shift in order to accommodate Peirce's *epistemic theory of truth* which ties truth to human practices of inquiry, Peirce's *anti-skeptical* fallibilism, Peirce's reliance on *epistemic hope*, and Peirce's *rejection of foundationalist epistemologies*, all of which I take to be crucial insights from Peirce's epistemology.

4 Fitch's paradox in the midst of inquiry

4.1 Resolving the paradox

As we have seen throughout this paper, Peirce accounts for truth not in terms of "getting the world right" or having beliefs "hang together", but instead in terms of inquiry and inquirers. Misak gets to the core of this view when she says, "If inquiry

29 See EP 2:44 and EP 2:420.

would no longer be able to improve on a hypothesis, then that hypothesis is true."[30] As she asks rhetorically, "What more could we aim for? What is added by wondering whether the hypothesis is *really* true?"[31] If Peirce were to respond to these questions, it would be with a crisp, "Nothing."

Put differently, we can say that for Peirce, the content of a true belief is identical to the content of its corresponding ideally-justified belief—and nothing more. In subjecting a belief to inquiry, we are attempting to justify that belief, and our notion of truth functions as the standard to which we hold our justificatory practices. When a belief reaches the ideal of justification—that is, when it could no longer be any better justified—the content of that belief can be nothing less than the truth. Similarly, once a belief becomes ideally justified there would seem to be nothing more for inquirers to aim for. Modifying Misak's point, nothing is added by wondering whether the belief is *really* knowledge. For the rest of this paper, I will take it that *S knows that p if S has an ideally-justified belief in p.*

It is here that my view branches most radically from Peirce's epistemology. This is because to my eye the end of inquiry is almost always projected infinitely far into the future,[32] and so knowledge or ideal justification is projected infinitely far as well. Anecdotally, the lesson we ought to learn from Riemann and Einstein seems to be the opposite of Peirce's stance "that questions do generally get settled in time, when they come to be scientifically investigated."[33]

On a more theoretical level, even if a belief's propositional content would never be changed by further inquiry, this does not mean that its justification remains the same throughout inquiry. Consider a community's belief in *p*, which by hypothesis is such that inquiry would never turn up evidence that calls it in question. Every piece of evidence either helps confirm the belief in *p* or it neither helps confirm nor disconfirm the belief. In short, inquiry provides the community of inquirers with no positive reason to doubt or modify the belief in *p*.

Nevertheless, each piece of confirming evidence helps make the belief in *p* better justified, such that even when it becomes a well-justified belief it could still be more well-justified. In short, even though the belief remains a belief in *p*, it can be ideally justified only when all the evidence pertinent to that belief is in. For the empirically-minded philosopher that takes experience to be a crucial source of evidence, this means that most every meaningful belief can be ideally justified only when experience and the possibility thereof ends, an eventuality that should never come to pass. Therefore, if experience continues to provide justificatory evidence forever, then inquiry ought to continue forever because our beliefs will not be ideally justified until all the evidence is in.

From here, the first portion of my Peircean response to Fitch's paradox follows. Since knowledge is nothing more than ideally-justified belief, actual individuals in

30 MISAK, 1991, p. 166.

31 *Idem*., p. 166.

32 I say "almost always" in order to leave open the question of whether a priori or analytic truths can be ideally justified and known without an infinite inquiry. I find myself sympathetic to a Lewisian-pragmatic conception of the a priori, but I am unable to expand on this here. For more, see LEWIS, 1956, p. 230-273.

33 EP2:420.

the midst of inquiry can never attain knowledge concerning most all of their beliefs. It is not only the case that they *will* never know, but they *can* never know.

This is all to say that I reject the knowability thesis as it relates to inquirers in the midst of inquiry. Instead, by arguing for inquiry demanding an infinite period of time, I am committed to the weaker justifiability thesis, which claims that all truths are justifiable. On the one hand, this guarantees that my view, like Peirce's, is a *thoroughgoing fallibilism*. On the other hand, this offers an adequate response to Fitch's paradox because a justified belief is *not necessarily a true one*, which is to say that there is no analogue to the second epistemic principle mentioned in §2. Whereas knowing p implies that p is true, it simply isn't the case that being justified in believing p implies that p is true. Without this analogous rule, the modal collapse proof cannot go through,[34] and the first step to addressing Fitch's paradox has been achieved. The next step will be made in §6 where I show how Fitch's proofs are not paradoxical for ideal inquirers at the end of inquiry.

4.2 The skeptical objection

Before I continue, there is one objection that I need to address. Historically, most empirically minded philosophers that are committed to the knowability thesis have used it as one of their strongest anti-skeptical principles. In Peirce's case, this is seen in the anti-skeptical hope that he has for inquiry (remember that it would be "unphilosophical" not to hope that all truths are knowable).[35] But, my critic will claim, by denying the possibility of knowledge my Peircean response leaves me with nothing to hope for, effectively undercutting any anti-skeptical implications Peirce's account of epistemic hope might have. The objection, then, is that my Peircean response might resolve Fitch's paradox, but it does so by capitulating to the skeptic.

This is a serious objection, and especially so to any view that would claim to be Peircean in anything more than name. This is because, for Peirce, capitulating to the skeptic would be to commit an "unpardonable offense in reasoning."[36] In the remainder of this section, I will defend my Peircean response against this skeptical objection, showing how the objection, although not totally unfounded, should not be of much concern to the Peircean. This is because the skeptic's objection *need not leave us epistemically hopeless*.

4.2.1 Why fear the skeptic?

The first step in my defense is to determine what exactly Peirce fears about the skeptic, and in doing so discover who exactly my skeptical opponent is. To do this, I turn to his "The First Rule of Logic." In this lecture, Peirce argues that the first "and in one sense [the] sole" rule of logic is that we must desire to learn, from which he derives his famous imperative, "Do not block the way of inquiry."[37] It is within the

34 In terms of the formal presentation of the proof in Note 8 above, my claim is that by modifying Line (1) to be in terms of justifiability, the inference at Line (5) is no longer licit.

35 W3:274.

36 EP2:48. For more on why this is the case, see COOKE, 2006, p. 30-33.

37 EP2:48.

context of this imperative that Peirce denounces the skeptic, and it is my contention that Peirce's fear is not that the skeptic threatens *knowledge*, but instead that the skeptic threatens *inquiry*.

By itself, Peirce's denunciation of the skeptic does not support this contention. As Peirce frames it, people "maintaining that this, that, and the other never can be known" often results in the blocking of inquiry.[38] When people think that some proposition can never be known, they no longer see any reason for inquiring into that proposition. Here, Peirce seems to be saying that to threaten knowledge precisely is to threaten inquiry, and if this is his last word, then my Peircean response is left without a defense against the skeptical objection.

However, in the context of Peirce's discussion of two other ways of blocking inquiry, his denunciation of the skeptic can support my contention. The first way of blocking inquiry occurs when people maintain that they know some proposition with absolute *certainty*, while the second way occurs when people maintain the *finality* of a belief, "that this or that law or truth has found its last and perfect formulation."[39] Both ways block the way of inquiry because, like skepticism, they leave people with no reason to inquire.

With this in mind, it becomes clear that what Peirce means by "knowledge" in his denunciation of skepticism is not the same as what I mean by "knowledge" in this paper. Peirce's critique of the way involving certainty makes it clear that whatever it is that he designates with "knowledge" c*annot be certain* for people in the midst of inquiry. If what he designates with "knowledge" could be certain, he would be breaking his own imperative to not block the way of inquiry. However, since I have been taking "knowledge" to designate ideally-justified belief, it would seem as if what I designate with "knowledge" c*an, and in fact must, be certain* for anyone able to achieve it.

The way involving finality introduces another break with my usage of "knowledge". Specifically, what Peirce designates with "knowledge" has less normative standing than what I designate with "knowledge". For Peirce, inquirers take their knowledge to be final when they think that it is no longer possible for them to discover new and unexpected evidence relating to their knowledge. But since "there is no kind of inference which can lend the slightest probability to any such absolute denial of an unusual phenomenon," inquirers ought always to be ready to revise their beliefs, even those beliefs that constitute what Peirce designates with "knowledge".[40] However, for knowledge *qua* ideally-justified belief, there cannot be missing evidence *ex hypothesi*, and so one ought always to believe what one knows. Whereas on Peirce's usage, better-justified-but-false belief ought to trump knowledge, on my usage nothing ought to trump knowledge because knowledge has the highest epistemically normative standing.

As I have now shown, Peirce and I disagree about what constitutes knowledge. For Peirce, knowledge is *uncertain* and has *less-than-absolute epistemically normative standing*, while I disagree with both characterizations. Going forward, I

38 EP2:49.

39 EP2:49.

40 EP2:50.

will continue to use "knowledge" to designate ideally-justified belief, and substitute the phrase "fallibly-justified true belief" to designate what Peirce designates with "knowledge".

With this, I can conclude the first step of my defense against the skeptical objection. Although Peirce argues that the skeptic who denies the possibility of fallibly-justified true belief threatens inquiry, he does not discuss the skeptic who denies the possibility of knowledge. Going forward, I will first rebut the former sort of skeptic, and then argue that the latter sort need not block the way of inquiry.

4.2.2 Clearing the way of inquiry

My goal in this step will be to show that my Peircean response is not skeptical in the sense of denying the possibility of fallibly-justified true belief. Although I deny that it is possible for people in the midst of inquiry to have *ideally*-justified belief, I maintain that it is possible for them to have *fallibly*-justified belief. That is precisely what the justifiability thesis claims. Moreover, I see no in principle reason to suppose that people in the midst of inquiry are incapable of reaching the truth. Whether through being justified or just being lucky, the content of someone's belief may be the same as that of the ideally-justified belief that would be believed at the end of inquiry, so in this sense that belief would be true. Finally, there is nothing preventing the set of such true beliefs from intersecting with the set of beliefs that have some fallible justification. Therefore, my Peircean response does not imply the impossibility of fallibly-justified true belief for people in the midst of inquiry, and so my Peircean response does not necessarily block the way of inquiry.

4.2.3 Inquiry and epistemic hope

However, my Peircean response is obviously skeptical in the sense of denying the possibility of knowledge, so there is still the worry that my Peircean response may block the way of inquiry, only in some way that is more subtle than the ways discussed in "The First Rule of Logic." The third step in my defense against the skeptical objection will be dedicated to proving that this worry is unfounded.

Because of my wholesale denial of the knowability thesis, it seems as if inquirers in the midst of inquiry can never rationally hope to achieve knowledge. My goal in this third step will be to shift the focus away from the *product of inquiry* (i.e. knowledge) and instead direct the focus towards the *process of inquiry* (i.e. inquiry itself). My ultimate claim will be that people in the midst of inquiry can have hope for the process of inquiry even if they cannot have hope for a fixed product resulting from inquiry.

Before I start, I should first get clear on what I mean by "hope". Unfortunately, even though Peirce discusses hope in many of his writings, he is not always clear how he conceives of hope and its role in inquiry. For clarification, I turn to Elizabeth Cooke's account of pragmatist hope. For Cooke, hope "implies a positive outlook about the future, without warrant in that positive outlook."[41] What I will be taking as distinctive about hope is this absence of warrant. Although there is no reason *in support of* someone's hope, there is also no reason *against* someone's hope. Hope is not *irrational* in that it conflicts with reason, but "*non-rational*" in that it is independent of reason.

41 COOKE, 2005, p. 666.

The point I wish to highlight is that people within the midst of inquiry may still hope for something, even if this something is not what it is usually taken to be. I concede to the skeptic that for almost every question these people inquire into, they have no hope of gaining knowledge related to that question. Nevertheless, they may still hope that, as they inquire more and more into their beliefs and gain more and more justification for those beliefs, it becomes in some sense more and more likely that the contents of their beliefs coincide with the contents of known, ideally-justified beliefs.

People in the midst of inquiry are left *hoping* that this is the case because there is an absence of reasons for belief or for disbelief. As the skeptic points out, without knowing what the truth is, there would seem to be *no reason for people in the midst of inquiry to suspect that incomplete justification is a reliable indicator of truth*. What the skeptic doesn't point out is that, without knowing what the truth is, there would also seem to be *no reason for them to suspect that incomplete justification is not a reliable indicator of truth*. What the skeptic doesn't want us to see is that this is not an issue for reason to decide, but instead one that only hope can decide.

It is here that the variety of skepticism implied by my Peircean response becomes most clear. My response is skeptical insofar as I have no rational argument to compel the pessimistic skeptic into changing her way of thinking. If she sees inquiry as hopeless, she is already lost. However, my response is skeptical in only a mitigated fashion. For those of us who do place hope in inquiry, I have just provided a rational argument for why the pessimistic skeptic's rational arguments need not and ought not to compel us to agree with her. In short, our hope for inquiry is not the sort of thing that can be rationally proven to be either true or false.[42]

With this, I can bring this third step to a close. My Peircean response does not block the way of inquiry because it leaves intact this hope for inquiry. So long as people within the midst of inquiry continue to hope, they will continue inquiring, they will continue justifying their beliefs, and hopefully they will succeed in their search for truth. For the Peircean, this should be enough of a response to the skeptical objection.

This is not to say that I have addressed the skeptical objection to everyone's satisfaction, nor that I think I have done so. No doubt some readers will be put off by the not insignificant concessions to the skeptic that I have made. My only defense against this charge is that I am not left in bad company. My strategy for handling the skeptical objection has been one of containment, a strategy to which many eminent thinkers have taken recourse, so I direct unsatisfied readers to such works as a supplement to my own.[43]

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42 Two things should be noted. First, not every hope is insulated from rational critique in the manner that the hope for inquiry is. This is because, whereas most hopes are based on a momentary lack of warrant, the hope for inquiry is based on a necessary lack of warrant. Second, just because this hope cannot be rationally shown to be true or false, this does not entail that it is absolutely beyond rational critique. For instance, it could be argued that this hope is *useful* or *not useful*.

43 See, for instance, PLATO, 21a-21e; HUME, 1993, §12; HUME, 2007, especially Book 1; KANT, Bxxx; RESCHER, 2001, Chapters 4 and 5; AIKIN, 2013, p. 68-71.

5 Fitch's paradox and the ideal end of inquiry

Now that I have addressed the skeptical objection, I have one final issue to discuss. As we saw in §3, Peirce's account has it that certain inquiries can come to an end, and that the actual or would-be inquirers who reach the end of inquiry have knowledge. This commits him to the knowability thesis for both end-of-inquiry inquirers and in-the-midst-of-inquiry inquirers, and as I argued, leaves him with no satisfying response to Fitch's paradox. In §5, I argued, against Peirce, that it is not possible for people in the midst of inquiry to know, and so I reject the knowability thesis as it relates to them. But I have not yet said anything about my view of Fitch's paradox *as it relates to end-of-inquiry inquirers*.

My first thought is that, since I claim that inquiry proceeds for an infinite period of time, the idea of an end-of-inquiry inquirer is nonsensical. Since on my view there are no real inquirers who will reach the end of inquiry, anything I say about such an inquirer will be vacuous, including anything concerning Fitch's paradox.

Although this is one line to take, this is not the line that I want to pursue. Instead, when I talk about end-of-inquiry inquirers, I do not want to refer to real persons (whether they be actual persons or subjunctive would-be persons) but instead to an ideal that serves as an aspiration for people in the midst of inquiry. This being the case, the idea of an end-of-inquiry inquirer has a regulative use such that it establishes norms for real inquirers, but it does not have a constitutive use that would establish real facts concerning end-of-inquiry inquirers.

It is here that, if we turn to the modal collapse proof in particular, we learn something surprising about our epistemic ideals. Remembering back to §1, this proof starts with "All truths are knowable" and concludes "All truths are known." Now if we consider our ideal end-of-inquiry inquirer, we will have to say that for her, all truths are knowable. For every truth, she can complete the process of ideally justifying it—this is what makes her our ideal inquirer as opposed to a real inquirer.

Once we admit this, the modal collapse proof goes through, but like Peirce, I argue that this result is not paradoxical. The modal collapse proof is seen to be paradoxical because it is usually interpreted as showing that knowability *really does* collapse into knowing. As we saw in §2, Peirce's strategy fails because he accepts this usual interpretation, but claims that his subjunctive realism dissolves the paradox.

My strategy differs from Peirce's because I do not accept the usual interpretation of the proof. On my account, it is not that knowability *really does* collapse into knowing, but that *our ideal or aspiration* is that knowability *ought* to collapse into knowing. As such, the proof no longer concerns reality but ideality, and my claim is that this change of modality makes the proof non-paradoxical. It is perfectly intelligible for there to be no truths that an ideal inquirer could know but wouldn't.

Once we reinterpret the modal collapse proof in this manner, we see that instead of being a crippling objection to my Peircean account, Fitch's paradox actually offers strong abductive support for anti-foundationalist epistemologies. The modal collapse proof establishes that if all truths are knowable, then all truths are known. Transposing this conditional, we get the claim that if not all truths are known, then not all truths are knowable. Both of these formulations combine to show that our ideal inquirer, since she is able to know all truths, must actually have the system of all truths, and she cannot possibly know all truths unless she has

actually completed the system of all truths. This sort of systematicity is a hallmark of coherentism and, to a lesser degree, epistemological infinitism. Therefore, the best abduction to draw would seem to be that our epistemic aspirations are anti-foundationalist aspirations.

With this conclusion, I have completed my Peircean response to Fitch's paradox. I have done my best to engage with the issues raised by this paradox, and although I have had to make some revisions to Peirce's epistemology, I find these revisions to be relatively minor in comparison to the Peircean insights that I have reestablished.

Bibliography

AIKIN, S. F. *Epistemology and the regress problem*. New York: Routledge, 2013.

ALMEDER, R. Peirce's pragmatism and Scotistic realism. *Transactions of the C. S. Peirce Society*, v. 9, n. 1, p. 3-23, 1973.

AYER, A. J. *Language, truth, & logic*. New York: Dover, 1952.

BERKELEY, G. *A treatise concerning the principles of human knowledge*. DANCY, Jonathan (ed.). New York: Oxford University Press, 2010.

BOLER, J. Peirce and medieval thought. In: MISAK, Cheryl (ed.). *The Cambridge Companion to Peirce*. Cambridge: Cambridge University Press, p. 58-86, 2004.

_____. Peirce on the medievals: realism, power and form. *Cognitio: revista de filosofia,* v. 6, n. 1, p. 13-24, 2005.

CHURCH, A. Referee reports on Fitch's "A definition of value." In: SALERNO, Joe (ed.). *New essays on the knowability paradox*. New York: Oxford University Press, p.13-20, 2009.

COOKE, E. Transcendental hope: Peirce, Hookway, and Pihlström on the conditions for inquiry. *Transactions of the Charles S. Peirce Society*, v. 41, n. 3, p. 651-674, 2005.

_____. *Peirce's pragmatic theory of inquiry: fallibilism and indeterminacy*. London: Continuum, 2006.

FARBER, I. Peirce on reality, truth, and the convergence of inquiry in the limit. *Transactions of the Charles S. Peirce Society*, v. 41, n. 3, p. 541-566, 2005.

FITCH, F. B. A logical analysis of some value concepts. In: SALERNO, Joe (ed.) *New essays on the knowability paradox*. New York: Oxford University Press, p. 21-28, 2009.

FRIEDMAN, L. C. S. Peirce's transcendental and immanent realism. *Transactions of the C. S. Peirce Society*, v. 31, n. 2, p. 374-392, 1995.

HILPINEN, R. On a pragmatic theory of meaning and knowledge. *Cognitio: revista de filosofia,* v. 5, n. 2, p. 150-167, 2004.

HUME, D. *An enquiry concerning human understanding*. STEINBERG, Eric (ed.). Indianapolis: Hackett, 1993.

_____. *A treatise of human nature*. NORTON, David Fate and NORTON, Mary J. (ed.). New York: Oxford University Press, 2007.

KANT, I. *Critique of pure reason*. GUYER, Paul and WOOD, Allen W. (ed. and trans.). New York: Cambridge University Press, 2009.

KELP, C., and PRITCHARD, D. Two deflationary approaches to Fitch-style reasoning. In: SALERNO, Joe. *New essays on the knowability paradox*. New York: Oxford University Press, p. 324-338, 2009.

KLENK, V. *Understanding symbolic logic*. 5th ed. Upper Saddle River, NJ: Prentice Hall, 2008.

KONYNDYK, K. *Introductory modal logic*. Notre Dame, IN: Notre Dame University Press, 2008.

KVANVIG, J. L. *The knowability paradox*. New York: Oxford University Press, 2006.

LEWIS, C. I. *Mind and the world order: Outline of a theory of knowledge*. New York: Dover, 1956.

MISAK, C. J. *Truth and the end of inquiry: A Peircean account of truth*. New York: Oxford University Press, 1991.

PEIRCE, C. S. *The Essential Peirce: Selected philosophical writings*. 2 vols. HOUSER, Nathan and KLOESEL, Christian (ed.). Bloomington, IN: Indiana University Press, 1992-1998.

_____. *Writings of Charles S. Peirce: A chronological edition*. 8 vols. Bloomington: Indiana University Press, 1982-2009.

PLATO. *Five dialogues: Euthyphro, Apology, Crito, Meno, Phaedo*. Translated by G. M. A. Grube. Indianapolis: Hackett, 1981.

RESCHER, N. *Cognitive pragmatism: The theory of knowledge in pragmatic perspective*. USA: University of Pittsburgh Press, 2001.

_____. *Epistemic logic: A survey of the logic of knowledge*. Pittsburgh: University of Pittsburgh Press, 2005.

RESTALL, G. Not every truth can be known (at least, not all at once). In: SALERNO, Joe (ed.). *New essays on the knowability paradox*. New York: Oxford University Press, p. 338-354, 2009.

SALERNO, J. (ed.). *New essays on the knowability paradox*. New York: Oxford University Press, 2009.

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Data de envio: 22-05-16
Data de aprovação: 08-10-16