

# The Final Incapacity: Peirce on Intuition and the Continuity of Mind and Matter (Part 1)

## *A Incapacidade Final: Peirce sobre Intuição e Continuidade da Mente e Matéria (Parte 1)*

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**Abstract:** This is the first of two papers that examine Charles Peirce's denial that human beings have a faculty of intuition. The semiotic and epistemological aspects of that denial are well-known. My focus is on its neglected metaphysical aspect, which I argue amounts to the doctrine that there is no determinate boundary between the internal world of the cognizing subject and the external world that the subject cognizes. In the second paper, I will argue that the "objective idealism" of Peirce's 1890s cosmological series is a more general iteration of the metaphysical aspect of his earlier denial of intuition.

**Key words:** Charles Peirce. Intuition. Cognition. Generality. Indeterminacy. Continuity. Objective idealism.

**Resumo:** *Este é o primeiro de dois artigos que examinam a recusa de Charles Peirce de que o ser humano possui uma faculdade de intuição. Os aspectos semióticos e epistemológicos desta negação são bem conhecidos. Meu foco é sobre o aspecto metafísico negligenciado, o qual eu argumento, reduz-se à doutrina de que não há fronteira determinada entre o mundo interno do sujeito cognoscente e o mundo externo que o sujeito conhece. No segundo artigo, afirmarei que o "idealismo objetivo" da série cosmológica de 1890 de Peirce é um plano mais geral do aspecto metafísico de sua primeira negação da intuição.*

**Palavras-chave:** *Charles Peirce. Intuição. Cognição. Generalidade. Indeterminação. Continuidade. Idealismo Objetivo.*

In the course of his attack on Cartesianism in the cognition series of 1868-69, Charles Peirce argued that there are four cognitive abilities that humans lack: introspection, thinking without signs, conceiving the incognizable, and intuition.<sup>1</sup> Earlier commen-

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1 The cognition series consists of three articles published in the *Journal of Speculative Philosophy*: "Questions Concerning Certain Faculties Claimed for Man" (QCCF, 1868), "Some Consequences of Four Incapacities" (SCFI, 1868), and "Grounds of Validity of the Laws of Logic: Further Consequences of Four Incapacities" (GVLL, 1869). Arguments relevant to each of the four incapacities appear in all three papers, but especially in the first two. In QCCF, Peirce argues that we lack introspection, then that we cannot conceive the incog-

tators have analyzed this attack, and several have paid special attention to the second of the incapacities and to Peirce's doctrine that "all thought is in signs." (QCCF, CP 5.253; W 2:208; EP 1:24)<sup>2</sup>. Another of Peirce's well-known doctrines is his *synechism*, which he sometimes states as a sort of methodological principle of philosophy, e.g., as "[t]he tendency to regard continuity [...] as an idea of prime importance in philosophy" (CP 6.103; W 8:136; EP 1:313, 1892; see also CP 6.169, 1902), and sometimes as a straightforwardly metaphysical doctrine, e.g., as the view that "all that exists is continuous." (CP 1.172; R 955, 1893)<sup>3</sup>. Although Peirce does not use the term "synechism" in the cognition series, continuity is featured prominently therein. One of that work's central theses is that cognition is continuous, that "the action of the mind is [...] a continuous movement." (GVLL, CP 5.329; W 2:250; EP 1:63). The literature on Peirce's thinking about continuity is large and still growing.<sup>4</sup>

In the present article and its sequel, I focus on what is in my view an unjustly neglected aspect of the cognition series, one that is as intimately connected with Peirce's synechism as is his commitment to the continuity of thought. I have in mind a specific aspect of Peirce's denial that humans have intuition. It is not the epistemological aspect of that denial, according to which we have no immediate and infallible access to the cognized world. Nor is it the semiotic aspect, according to which every thought represents its object mediately, by representing a prior thought of that same object. Each of those aspects of the final incapacity have been well-canvassed by earlier commentators. The unduly neglected facet of the cognition series is the *metaphysical* aspect of Peirce's denial of intuition.<sup>5</sup> The metaphysical implications of

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nizable, then that we cannot think without signs, and finally that we lack intuition. These four incapacities are summarized in SCFI (CP 5.265, W 2:213, EP 1:30), albeit in a different order: introspection, intuition, thinking without signs, and conceiving the incognizable. The titles of the present article and its sequel refer to the fact that intuition is the final incapacity that Peirce deals with in QCCF.

- 2 Notable examinations of the cognition series include MURPHEY, 1961 [1993], chapter five; SKAGESTAD, 1981, p. 20-26; HOOKWAY, 1985, chapter one; HAUSMAN, 1993, p. 60-67; and SMYTH, 1997, chapters one through four.
- 3 The *Collected Papers* (CP) gives "c.1897" as the date of R 955, but the Peirce Edition Project has determined that it was written in the summer of 1893. CP 1.141-175 was titled "Fallibilism, Continuity and Evolution" by the CP's editors. It is the second part of a lecture, the first part of which is in R 860, to which Robin gave the title "Nominalism, Realism and the Logic of Modern Science"; see the *Peirce Edition Project Newsletter* 4 (2001), available in: <[http://www.iupui.edu/~peirce/news/4\\_1/4.1.htm](http://www.iupui.edu/~peirce/news/4_1/4.1.htm)>, according to which the lecture is from summer 1893. The Peirce Edition Project has named the lecture "Scientific Fallibilism." The aforementioned issue of the Project's *Newsletter* provides information about other portions of this lecture published in CP.
- 4 Works that document how Peirce's thinking about continuity changed over the years include Vincent Potter, "Peirce on Continuity," chapter 8 of POTTER, 1996 (this chapter is a later version of POTTER and SHIELDS, 1977); MOORE, 2007, which is amended in MOORE, 2009; and HAVENAL, 2008. Peter Ochs describes what he takes to be Peirce's "final definition of continuity" in OCHS, 1993.
- 5 Earlier commentators have written on Peirce's denial of intuition, but to my knowledge none

that denial are interesting in their own right, but once we recognize them, we will also be in a position to see a common thread between this relatively early work of Peirce's and some of the more obscure portions of his later thought. My principal claims are that, in its metaphysical aspect, Peirce's 1868-69 denial of intuition amounts to a denial of any definite boundary between the internal world of the mind and the external world that the mind cognizes,<sup>6</sup> and that it is thus a forerunner of his *objective idealism*, a central thesis of his notoriously difficult "cosmological series" published in *The Monist* in 1891-93.

In section one of the present paper, I consider what Peirce means in the cognition series by "intuition." My goal is not simply to lay the groundwork for the historical argument to come, but also to provide a more thorough account of the cognition series' concept of intuition than has been made available by previous commentators. In doing so, I will concentrate on the connections among Peirce's concept of intuition and his concepts of cognition, determination, and generality. The metaphysical aspect of the final incapacity will not take the stage until section two, in which I begin to integrate into my account Peirce's work on continuity. I explain both how he defines continuity at the time of the cognition series and the role that continuity plays in his denial of intuition. By the end, we will see how, in its metaphysical aspect, that denial amounts to the claim that there is no definite boundary between that which is mind and that which is not mind. In the sequel to this paper, I will turn to the objective idealism for which Peirce argues in the cosmological series, and I will show that it is a more general formulation of his earlier denial of a sharp boundary between the internal and external worlds.

## 1. What Intuition Would Be

Descartes defined intuition as "the conception of a clear and attentive mind, which is so easy and distinct that there can be no room for doubt about what we are understanding [...] the indubitable conception of a clear and attentive mind which

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has closely analyzed its metaphysical aspect. Despite his evident metaphysical ambition (viz., establishing that Peirce recognized an "isomorphism between thought and being"), FOREST (2007) emphasizes the epistemological and semiotic aspects of the final incapacity without considering its metaphysical aspect (see p. 734). As its title suggests, Dobrosielski's "C. S. Peirce on the Impossibility of Intuitive Knowledge" (1977) focuses exclusively on its epistemological aspect. MURPHEY (1961 [1993]) acknowledges the metaphysical aspect of Peirce's concept of intuition, noting that "by intuition Peirce means an effect determined directly by the thing-in-itself" (106-107) and that "Peirce quite literally regards the existence of intuition as involving the existence of the transcendental object and therefore as a fallacy leading to nominalism." (p. 108). But he does not recognize the claim for which I argue below, that Peirce's denial of intuition amounts to the denial of a definite boundary between the cognizing mind and the cognized world, and his emphasis is, at any rate, still on the epistemic rather than the metaphysical consequences of that denial.

6 Peirce uses "internal world" and "external world" frequently, including in the cognition series. (QCCF, CP 5.244; W 2:206; EP 1:22. SCFI, CP 5.265-66; W 2:213; EP 1:30).

proceeds solely from the light of reason.”<sup>7</sup> The cognition series is dedicated in part to attacking Descartes’ epistemology, including the doctrine that individual humans are capable of epistemic certainty. But the definition of intuition with which Peirce is operating is closer to that of Kant, who wrote:

All representations have, as representations, their object, and can themselves in turn become objects of other representations. Appearances are the sole objects which can be given to us immediately, and that in them which relates immediately to the object is called intuition.<sup>8</sup>

“[T]hat in [appearances] which relates immediately to the object” resembles Peirce’s definition but is still not quite the same.<sup>9</sup> At the beginning of the first article of the cognition series, Peirce tells us exactly how he will be using the term:

Throughout this paper, the term *intuition* will be taken as signifying a cognition not determined by a previous cognition of the same object, and therefore so determined by something out of the consciousness. [...] *Intuition* here will be nearly the same as “premise not itself a conclusion”; the only difference being that premises and conclusions are judgments, whereas an intuition may, as far as its definition states, be any kind of cognition whatever. But just as a conclusion (good or bad) is determined in the mind of the reasoner by its premise, so cognitions not judgments may be determined by previous cognitions; and a cognition not so determined, and therefore determined directly by the transcendental object, is to be termed an *intuition*. (QCCF, CP 5.213; W 2:193-94; EP 1:11-12).<sup>10</sup>

7 *Rules for the Direction of Our Native Intelligence*, in *Oeuvres de Descartes* 10: 368, and in *The Philosophical Writings of Descartes* 1: 14.

8 *Critique of Pure Reason* A 108-109. Kant continues: “But these appearances are not things in themselves; they are only representations, which in turn have their object—an object which cannot itself be intuited by us [...]”

9 Early in QCCF Peirce says that he and Kant use “intuition” in “nearly” the same way as it was sometimes used in the medieval period, by Duns Scotus for example, to mean “the opposite of a discursive cognition” (5.213 n.1; W 2: 193 n.1; EP 1: 12 n.); but he does not indicate that his use is the same as Kant’s. Later in QCCF, after giving an account of the mediate perception of space and time, he notes that “Kant, it is true, makes space and time intuitions, or rather forms of intuition, but it is not essential to his theory that intuition should mean more than ‘individual representation.’ The apprehension of space and time results, according to him, from a mental *process* [...] My theory is merely an account of this synthesis.” (CP 5.223 n.2; W 2: 199 n.4; EP 1: 17 n.). For further comments by Peirce on the translation of Kant’s term “*Anschauung*” by “*Intuitus*,” see SCFI, 5.300 n.1; W 2: 234 n.6; EP 1: 48 n.

10 This echoes the definition that he had given in a draft of the cognition series, according to which an intuition is a cognition “determined [...] immediately by an external thing” rather than by another, earlier cognition of that thing.” (W 2: 167, 1868). Smyth summarizes the historical background of the 19<sup>th</sup> century debate over intuition, and in my view he overstates the similarity between Peirce’s concept of intuition and that of John Stuart Mill and William Hamilton: “Peirce opens his essay by formulating a concept of intuition that most of the combatants had previously agreed to. Peirce might even have quoted Mill, who was in his own turn quoting Hamilton: ‘We know intuitively, what we know by its own evidence – by the direct apprehension of the fact, and not through the medium of a previous knowledge of something from which we infer it.’” (SMYTH, 1997, p. 4, quoting

Peirce's definition of intuition is more metaphysical than epistemological, in that it defines intuitions according to the manner in which they are brought about and not according to their epistemic status. In addition, his definition has a semiotic aspect, as it alludes to the representative nature of an intuition: it is a cognition *of* an object and therefore representative of that object. This should be no surprise given Peirce's view, mentioned above, that "[w]e have no power of thinking without signs" (SCFI, CP 5.265; W 2: 213; EP 1: 30); "whenever we think, we have present to the consciousness some feeling, image, conception, or other representation, which serves as a sign." (SCFI, CP 5.283; W 2: 223; EP 1: 38).<sup>11</sup> In the language of Peirce's semiotics, an intuition would be a "thought-sign" that is determined, not by its object, but by a previous thought-sign of that same object.

To bring into clearer focus the metaphysical aspect of Peirce's concept of intuition and to begin to see why he denies that we have intuitions, we need to consider a more basic question than that of intuition itself: what, for Peirce, is a cognition? In a draft of the cognition series, Peirce writes that "every cognition we are in possession of is a judgment [with a] subject and predicate" (W 2: 180, 1868).<sup>12</sup> But as his definition of "intuition" suggests, in the cognition series itself he does not limit cognitions to judgments ("premises and conclusions are judgments, whereas an intuition may [...] be any kind of cognition whatever"). The varieties of cognition that Peirce mentions in QCCF include "dreaming, imagining, conceiving, [and] believing" (CP 5.238-39; W 2: 204; EP 1: 21; see also W 2: 170), as well as sensory perception, e.g., "the perception of two dimensions of space" (CP 5.223; W 2: 198; EP 1: 15) and the tactile perception of the difference between two types of cloth. (CP 5.221; W 2: 197; EP 1:15).

Crucially, cognitions are not mental items that are wholly present in a person's mind at any one time. Rather, they "are events, acts of the mind." (SCFI, CP 5.288; W 2: 225; EP 1: 40). It is more accurate to think of cognition as something that the mind does over a span of time rather than to think of the mind as containing or consisting of cognitions any of which is wholly present at a given moment. In this way, cognition is analogous to dance. A dance is not a component of a dancer's body but something a dancer does, and since it is an activity, it takes time – sometimes quite a long time, as with an elaborately choreographed ballet, sometimes only a few seconds, as with an impromptu jig. Cognition, too, is something that occurs over time rather than an instantaneous event or an item that is completely present in the

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from Mill, *An Examination of Sir William Hamilton's Philosophy*, in *The Collected Works of John Stuart Mill* 9: 113.)

11 For Peirce, a sign is, roughly, something that represents something to someone. For example: "[A] sign has [...] three references: 1st, it is a sign *to* some thought which interprets it; 2d, it is a sign *for* some object to which in that thought it is equivalent; 3d, it is a sign, *in* some respect or quality, which brings it into connection with its object." (SCFI, CP 5.283; W 2: 223; EP 1: 38). The literature on Peirce's semiotics is vast; SHORT, 2007 is a notable recent addition to it.

12 This echoes his earlier claims that "[e]very judgment consists in referring a predicate to a subject" (W 1: 152, 1864) and that "[a]ll the cognitions which we actually have experience of are propositions [...]" (W 1: 155, 1864).

mind at a given instant. (SCFI, CP 5.289 and n.1; W 2: 227 and n.4; EP 1: 42 and n.).<sup>13</sup>

Again, Peirce's view is that an intuition would be a cognition of an object not determined by previous cognitions of that same object.<sup>14</sup> But what is it for one cognition to determine another? In an 1873 manuscript, Peirce hints strongly that the determination of one cognition by another is a matter of causation:

Every mind which passes from doubt to belief must have ideas which follow after one another in time. Every mind which reasons must have ideas which not only follow after others but *are caused by them*. Every mind which is capable of logical criticism of its inferences, must be aware of *this determination* of its ideas by previous ideas. (W 3: 68-69, emphases added).

He goes on to explain determination in terms of a thought that is present at one time having "an effect" upon a thought that is present at a later time. (W 3: 70-71).<sup>15</sup> The suggestion is that for cognition *x* to determine cognition *y* is for *x* to bring *y* about as an effect. But there is another aspect of Peirce's concept of determination, one that is no less crucial to an understanding of intuition. He also writes that something is determined just in case it is "fixed to be *this* (or *thus*), in contradistinction to being this, that or the other (or in some way or other)." (CP 6.625-26; W 2: 155-56, 1868; emphases in original).<sup>16</sup> Illuminating this aspect of Peirce's notion of determination,

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- 13 Peirce echoes this idea in "How to Make Our Ideas Clear" when he writes that some elements of consciousness, viz. sensations, "are completely present at every instant so long as they last, while others (like thought) are actions having beginning, middle, and end, and consist in a congruence in the succession of sensations which flow through the mind. They cannot be immediately present to us, but must cover some portion of the past or future. Thought is a thread of melody running through the succession of our sensations." (CP 5.395; W 3: 262-63; EP 1: 128-29, 1878) As he puts the same point still later, in 1887-88's "A Guess at the Riddle," "[f]eelings [...] form the warp and woof of cognition," but what is "eminently characteristic of cognition" is "the consciousness of a process, and this in the form of the sense of learning, of acquiring, of mental growth [...] This is a kind of consciousness which cannot be immediate, because it covers a time, and that not merely because it continues through every instant of that time, but because it cannot be contracted into an instant. It differs from immediate consciousness, as a melody does from one prolonged note." (CP 1.381; W 6: 186; EP 1: 260).
- 14 More specifically, Peirce writes that an intuition would be a cognition not *logically* determined by a previous cognition of the same object, i.e., not determined by way of deductive, inductive or abductive inference; he maintains in the cognition series that all cognition results from one of those three types of inference. The same doctrine carries over into the cosmological series; see CP 6.144-46; W 8: 151-52; EP 1: 327-29, 1892.
- 15 In a 1906 manuscript, Peirce confirms that, at least with regard to signs, causation is one way, although not necessarily the only way, in which determination can occur: "a sign is a something which is on the one hand *caused or otherwise determined* by something else [...] but on the other hand it determines something to be through it determined as it is by the object of the sign." (R 499: 39-41, emphasis added)
- 16 Peirce's understanding of the word "determine" and its cognates seems to have remained relatively fixed over time. In the 1868 letter just quoted, he writes of the English "determined" and the German "*bestimmt*" that "as philosophical terms their equivalence is exact." (CP 6.625; W 2: 155); and in a 1909 letter to William James, he cites as synonyms for "determined" both "specialized" and "*bestimmt*." LEGG (2008, p. 114) writes that "Peirce

T. L. Short helpfully suggests that the “meaning [of ‘determine’] is that of ‘to limit,’ as in, ‘The water’s edge determines where your property ends.’”<sup>17</sup> This suggests the following understanding of determination: for  $x$  to determine  $y$  is for  $x$  to reduce the number of possible things that  $y$  can be or the number of ways that  $y$  can be. To determine  $y$  is to make  $y$  less general and more specific, more specialized, more ... determinate. Short’s formulation is in harmony with Peirce’s claim that “all determination is by negation.” (QCCF, CP 5.223 n.2; W 2: 200 n.4; EP 1:18 n.; and SCFI 5.294; W 2: 231; EP 1: 45). In order that  $x$  be determinate to some degree, there must be something that  $x$  is not or to which  $x$  does not apply, since “whatever is absolutely universal is devoid of all content or determination.” (QCCF, CP 5.223 n.2; W 2: 200 n.4; EP 1: 18 n.)

This way of explaining the point introduces the notion of generality. It is difficult to overstate the importance to Peirce’s philosophical thought of the notion of generality and of his so-called *scholastic realism*, according to which there are “real generals.”<sup>18</sup> While we need not consider Peirce’s realism about generals here, we must attend, at least briefly, to his distinction between generality and determinacy in order fully to understand the determination to which Peirce refers in his definition of intuition.

Let us start by recognizing that generality and determinacy come in degrees, and that the maximum limit of determinacy is *absolute determinacy*. Something is absolutely determinate when, with regard to any property whatsoever, it either has that property or it does not have it. If something is absolutely determinate, then “[e]very possible character, or the negative thereof, must be true of” it. (SCFI, CP 5.299; W 2: 233; EP 1: 47). To illustrate absolute determinacy, Peirce notes Berkeley’s claim that the idea or mental image of a man “must be of a man with his

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defined the key term ‘intuition’ as ‘a cognition not determined by a previous cognition of the same object’ [...] What exactly is meant here by ‘determined by’? The answer is ‘inferred from,’ as is shown by another of Peirce’s definitions of intuition, namely, ‘Premiss not itself a conclusion’[...].” But this is a bit too narrow, as it fails to distinguish the species *logical determination* from the genus *determination*. Early on, Peirce did describe an intuition as a “first premiss” (W 1: 488, 1866), an “ultimate premiss” (W 1: 489, 1866; W 1: 515, 1866), and “a premiss not itself a conclusion” (W 1: 515, 1866), and he repeated the “ultimate premiss” label in drafts of the cognition series (W 2: 162-3, 175-77). But as we have seen, in QCCF itself he rejects the definition of “intuition” as “a premiss not itself a conclusion,” since that definition excludes cognitions other than judgments.

17 SHORT, 2007, p. 167. Short notes that in a 1909 letter to William James, Peirce explains that by “determined” he means “specialized,” which, as Short points out, “suggests the idea of being limited.” (p. 168) Short does not quote from the 1868 passage quoted above in which Peirce defines “determine,” although he does note the work in which it occurs (166 n.6). He also notes that in the cognition series, “it is unclear in what sense one thought ‘determines’ another” (p. 34) and remarks that exactly what Peirce meant by “determine” “has remained a question, both for Peirce’s exegetes today and for Peirce himself as late as 1909 [...]” (34 n.6). See SHORT, 2007, p. 168 n.9 for references to secondary literature on this issue.

18 For more on Peirce’s early realism about generals, see LANE, 2004. In Peirce’s later philosophy, the dual of generality–determinacy was supplanted by the triad of generality–determinacy–vagueness, and his scholastic realism expanded to recognize the reality, not just of generals, but also of “vagues”. For more on this, see LANE, 2007.

mouth open or his mouth shut, whose hair is precisely of such and such a shade, and whose figure has precisely such and such proportions.” (*Ibid.*).<sup>19</sup> If an image of a man, be it a mental image or otherwise, is absolutely determinate, then, with regard to any property whatsoever, there must be a fact of the matter about whether or not the man as portrayed in the image has that property. Something that is absolutely determinate “has no generality” (W 2: 180, 1868), and to the degree that something is not determinate, i.e., to the degree that it is *indeterminate*, it is general. Berkeley’s view notwithstanding, an image of a man, even an image that is extraordinarily detailed, may nevertheless not specify every fact about that man, e.g., exactly how many teeth are in his mouth or how many hairs are on his head. If there are questions about the man the answers to which are not provided in the image, then there is an element of indeterminacy, of generality, to the image. It is possible for an image of a man to be so lacking in detail that it represents only human beings in general rather than a specific man or type of man. A stick figure of a person is an image of a human being, but it is extremely general, much more so than, e.g., a portrait that is recognizable as being of Barack Obama by those who know Obama. But on Peirce’s view, even an extremely detailed portrait of Obama would be general to some degree, as it could not possibly represent every fact there is about Obama.

So what is it for a cognition,  $x$ , to determine another cognition,  $y$  – what is it for  $x$  to make  $y$  more determinate, less general? Suppose that  $y$  is a cognition the object of which is my dog Murphy, e.g., my thinking that Murphy needs a bath. Further suppose that  $x$  is an earlier cognition of mine that determines  $y$ , e.g., that Murphy smells bad. Since  $x$  determines  $y$ , it limits  $y$  in the sense of restricting what  $y$  can be. For example, it limits it to be a cognition that is specifically about my dog Murphy rather than about something else, say, Murray Murphey the philosopher, or Murphy Brown the fictional television character. The earlier cognition causally brings about the later cognition such that the later cognition has one specific content rather than another specific content. But notice that this does not require that the object of  $y$  – that which  $y$  represents – be more determinate than the object of  $x$ . The cognition that Murphy smells bad can determine the later cognition that Murphy needs a bath, without the object or conceptual content of the earlier cognition being more general than the object or content of the later cognition.

On Peirce’s conception of intuition, then, an intuition is a cognition about an object,  $O$ , that is *not* determined – not causally fixed to be what it actually is – by a previous cognition about  $O$ , but instead by  $O$  itself. It is a thought-sign that represents its object directly and not by representing some earlier thought-sign of that

19 The reference is to §10 of the introduction to Berkeley’s *Treatise Concerning the Principles of Human Knowledge*, in *The Works of George Berkeley*, v.2. Peirce himself argues that humans do not have images, i.e., “representation[s] absolutely determinate,” either when we imagine or when we engage in “actual perception.” (SCFI, CP 5.300-306; W 2:233-36; EP 1:47-50) The latter claim indicates his commitment to direct realism – the “doctrine of immediate perception” – which occurs explicitly no later than his 1871 review of Fraser’s *Berkeley*. (CP 8.16; W 2: 471; EP 1: 91)



same object. Were I to intuit that Murphy needs a bath, that cognition would not be determined by an antecedent cognition about Murphy but would be determined directly by Murphy himself. What Peirce denies is that, when we think about *O*, we have a cognition that is the very first cognition about *O*, one before which there occurs no other cognition – no other thought-sign – of *O*. His view is that whenever someone has a thought, a belief, or any other cognition about something, no very first cognition about that thing occurs in her mind.

This idea is, on its face, very implausible; the aforementioned Murray Murphey goes so far as to call it “bizarre.”<sup>20</sup> After all, it seems to imply that any cognition of *O* that ever actually occurs in anyone’s mind is preceded by an infinite regress of cognitions of *O*.<sup>21</sup> Clearly, there was a time before I adopted Murphy during which I had no cognitions about him at all. And there must have been a very first time when I cognized him, probably when I first saw him in a cage at the Humane Society. So must I not have undergone a very first cognition about Murphy, one that preceded every subsequent thought that I have had about him? Peirce answers “no.” When a person thinks of *O* for the very first time, there arises in his mind a series of cognitions about *O*, but there is no “absolutely first” cognition about *O* in that series, no immediate cognition of *O*.<sup>22</sup> Cognition of *O* always involves a transition from one cognition of *O* to another, never from something that is not a cognition of *O* to something that is.

The key to understanding how one can cognize *O* for the first time without having a first cognition of *O* is to understand Peirce’s claim that “cognition arises by a continuous process.” (SCFI, CP 5.267; W 2: 214; EP 1: 30). So our next task is an examination of Peirce’s concept of continuity. In that examination, the metaphysical implications of Peirce’s denial of intuition will come to the fore.

## 2. Intuition and Continuity

On a pre-philosophical understanding of continuity, something is continuous when it is without gaps or interruptions. Peirce describes it as “unbrokenness[,] [...] fluidity, the merging of part into part.” (CP 1.163-64; R 955, 1893). Consider time. There is not one span of time here and another there, with gaps between the various spans. Time exhibits no breaks or interruptions but instead “flows” continuously. We define units of measure for time, but we use those units as tools to measure what is in itself not composed of separate, discrete pieces. The same is true of space.

But as Peirce notes, this casual sort of explanation does not really tell us what

20 MURPHEY, 1961 [1993], p. 135.

21 My focus here and for the remainder of the article is on the metaphysical aspect of Peirce’s denial of intuition. SHORT (2007, chapter two) has leveled criticisms of the semiotic aspect of that denial, arguing that it sets up an infinite regress of meaning such that no cognition could ever refer to anything in the external world. But Short argues persuasively that Peirce eventually revised his theory of cognition to avoid that infinite semiotic regress. My metaphysical arguments are independent of the claims about Peirce’s semiotics for which Short argues.

22 Peirce uses the phrase “mediate cognition” in a draft of the cognition series to refer to cognitions that are not intuitions. (W 2: 190).

continuity *is*: “to say that the continuity of time consists in its having no breaks, without saying what is to be understood by a break, is empty language.” (W 8: 134, 1892). In the cognition series, he defines a continuum as “precisely that, every part of which has parts, in the same sense.” (GVLL, CP 5.335; W 2: 256; EP 2:68).<sup>23</sup> This definition implies that the description of time given above is not quite right, that time, if continuous, *is* composed of parts, but that every one of those parts also has parts, so that time lacks *ultimate* parts, parts which are not themselves composed of still more parts. If cognition is a continuous process, as Peirce claims, then it too is composed of “parts” – individual processes or occurrences – but each of those parts is itself composed of the same sort of part. Each component process of cognition is composed of cognitive processes of shorter duration, and there are no ultimately short cognitive “atoms”. Peirce argues that cognition has this synechistic structure in an 1873 draft of material that would become part of 1877-78’s “Illustrations of the Logic of Science” series.<sup>24</sup> He first considers the view that visual sensations are discrete and indivisible, each existing only for an instant before it disappears. (The context makes clear that he intends this analysis to apply, not simply to sensations, but to cognition as well<sup>25</sup>). If this were the case, then any one cognitive “atom” would be completely distinct from every other,

its being present only in the passing moment. And the same idea can not exist in two different moments, however similar the ideas felt in the two different moments may, for the sake of argument, be allowed to be [...]. In short the resemblance of ideas implies that some two ideas are to be thought together which are present to the mind at different times. And this never can be, if instants are separated from one another by absolute steps. This conception is therefore to be abandoned, and it must be acknowledged to be already presupposed in the conception of a logical mind that the flow of time should be continuous [...]. Nothing is therefore present to the mind in an instant, but only during a time. (W 3: 69-70; see also W 3: 102-106).

He goes on to consider the “the idea of red” and concludes that that idea can be “present to the mind in an instant,” not in the sense of an ultimate, absolute temporal point, but rather in the sense of a “part of a certain interval of time; however short that part may be.” (W 3: 71).

It is because cognition is a continuous process that a person cognizing an object for the first time has no very first cognition of that object. This view seems paradoxical. On the one hand, there are times in my past when I had not yet thought about

23 Fernando Zalamea (2003, p.144) calls this property “reflexivity.”

24 The best known articles in this series are “The Fixation of Belief” (CP 5.358-87; W 3: 242-57; EP 1: 109-23, 1877) and “How to Make Our Ideas Clear” (CP 5.388-410; W 3: 257-76; EP 1: 124-41, 1878). The entire six-article series is reproduced in CP vols. 2, 5 and 6, W vol. 3 and EP vol. 1.

25 Peirce is examining the presuppositions involved in “the conception of a logical mind” (W 3: 69), one that can pass “from doubt to belief” and which must therefore “have ideas which follow after one another in time” (W 3: 68). This includes the case in which a “conclusion shall be produced from a premise” (W 3:71). This is a draft of the portion of “The Fixation of Belief” in which he notes that “a variety of facts are already assumed when the logical question [viz., ‘whether a certain conclusion follows from certain premises’] is first asked,” e.g., the fact that a given mind can pass from doubt to belief, “the object of thought remaining the same.” (CP 5.369; W 3: 246; EP 1: 113, 1877).

my dog Murphy. On the other, if we consider the process of cognition of which my thinking that I will adopt Murphy is a part and then follow that process backward, no matter how far back we go there will always be some previous cognition about Murphy. Further, it seems as though this regress must extend into the infinite past, and so it must stretch back in time to a point before I ever encountered Murphy and indeed before I was ever even born. But clearly, that is impossible.

Peirce denies that there is any real paradox here. On his view, my thinking about Murphy need not extend into the infinite past. That a process of cognition is composed of an infinite number of individual cognitive occurrences none of which is the first occurrence in the process does not imply that the process “has had no beginning in time; for the series may be continuous, and may have begun gradually [...]” (GVLL, CP 5.327; W 2: 247; EP 1: 61).

From the fact that every cognition is determined by a previous one, it follows that there have been an infinite series of finite times previous to any cognition since the latest time when there had been no cognition of the same object but not that there has been an infinitely long time between those two dates. (W 2: 163-64, 1868).

Let  $t1$  be the latest time before I have any cognition of Murphy and  $t2$  a time at which I am thinking that I will adopt him. There is “an infinite series of finite times” between  $t1$  and  $t2$ , but this does not mean that there is an infinite span of time between  $t1$  and  $t2$ . The continuity of cognition and the fact that there is never a first cognition of a given object result from the fact that cognition is a process that occurs in time, which is itself continuous.

Peirce compares this apparent paradox to that of Achilles and the tortoise, from which Zeno concluded that motion is an illusion. But Peirce maintains that the Achilles paradox is a “sophism,” that it does have a solution, and that that solution will also dispel the appearance of paradox surrounding the denial of intuition. The solution is to conceive of continuity correctly:

All the arguments of Zeno depend on supposing that a *continuum* has ultimate parts. But a *continuum* is precisely that, every part of which has parts, in the same sense. Hence, he makes out his contradictions only by making a self-contradictory supposition. In ordinary and mathematical language, we allow ourselves to speak of such parts – *points* – and whenever we are led into contradiction thereby, we have simply to express ourselves more accurately to resolve the difficulty. (GVLL, CP 5.335; W 2: 256; EP 1: 68).

Being continuous, space and time do not consist of ultimate, fundamental parts. Being continuous, cognition does not consist of ultimate, fundamental cognitive items or events. No one ever undergoes a very first cognition of a given cognized object, but that does not imply that her cognition of that object has no beginning in time. An infinite number of cognitions can occur within a finite period of time, just like a physical object can traverse an infinite number of spatial positions in a finite time.<sup>26</sup>

<sup>26</sup> Peirce claims that, even if we reject the definition of continuity that he gives here and thus reject his solution to the Achilles paradox, we might still agree with his view that whatever the solution to the Achilles is, it will also serve as a solution to the apparent paradox posed by our lack of intuition. (W 2: 178 and 180, 1868; and QCFF, 5.263; W 2: 211; EP 1: 27).

After criticizing Zeno, Peirce gives an illustration of continuity similar to others that occur in his later writings:

Suppose a piece of glass to be laid on a sheet of paper so as to cover half of it. Then, every part of the paper is *covered*, or *not covered*; for “not” means merely outside of, or other than. But is the line under the edge of the glass covered or not? It is no more on one side of the edge than it is on the other. Therefore, it is either on both sides, or neither side. It is not on neither side; for if it were it would be not on either side, therefore not on the covered side, therefore not covered, therefore on the uncovered side. It is not partly on one side and partly on the other, because it has no width. Hence, it is wholly on both sides, or both covered and not covered.

The solution of this is, that we have supposed a part too narrow to be partly uncovered and partly covered; that is to say, a part which has no parts in a continuous surface, which by definition has no such parts. The reasoning, therefore, simply serves to reduce this supposition to an absurdity. (GVLL, CP 5.336; W 2:256-57; EP 1:68-69; emphases in the original).

Because the sheet of paper is a continuous surface, every part of it has parts “in the same sense”. Since every part of it has parts, there is no part that is so small that it cannot be partly covered by the glass and partly not.

This suggests a view of the “boundary” between objects outside the mind and the cognizing mind itself, a view that Peirce sketches in a draft of the cognition series:

[...] there is nothing absolutely out of the mind, but the first impression of sense is the most external thing in existence. Here we touch material idealism. But we have adopted, also, another idealistic //conclusion/doctrine//, that there is no intuitive cognition. It follows that the first impression of sense is not cognition but only the limit of cognition. It may therefore be said to be so far out of the mind, that it is as much external as internal. (W 2:191, 1868)<sup>27</sup>

“Material idealism” is Kant’s term for the variety of idealism according to which “the existence of objects in space outside us [is] either [...] merely doubtful and indemonstrable or [...] false and impossible.”<sup>28</sup> Here Peirce is acknowledging that one aspect of his view, viz. that “there is nothing absolutely out of the mind,” pulls him in the direction of material idealism. But he then notes that he is pulled back from material idealism by his view that we lack intuitions, i.e., that there is no sharp cut-off between the external and the internal, between the object that is cognized and our cognitions of it. “The first impression of sense” –the very beginning of the process of cognition – is itself external; indeed, it is “the most external thing in existence.” But “it is as much external as internal” – and thus the most *internal* thing in existence, as well. Just as the line under the edge of the piece of glass is both covered and non-covered,

27 The slashes in this passage were placed by the editors of the *Writings* to indicate that Peirce had two alternative words in mind – “conclusion” and “doctrine” – and did not indicate in his manuscript which he preferred.

28 The former variety of material idealism Kant attributes to Descartes, calling it “problematic idealism”; the latter he attributes to Berkeley, calling it “dogmatic idealism.” (*Critique*, B 274) For Peirce’s thoughts on this portion of the *Critique*, see selection 20 in W 8 (c.1890).

the boundary between the non-mental and the mental is itself both non-mental and mental. But this is not a contradiction; what Peirce means is that there is no portion of the process of cognition that is so “small” that it cannot be partly non-mental and partly mental. He makes the comparison with spatial continuity:

Does the line of separation between contiguous black and white surfaces lie within the black or the white? Since the surfaces are contiguous, points on this line lie within one or the other, for the black covers by definition all points with a certain space not covered by the white and no others. But these points are no more in one surface than in the other. Whatever may be the solution of this antinomy, it is plain that the apparent contradiction respecting our beginning of consciousness is of the same nature. (W 2: 191, 1868).

To assert that we *do* have intuition would be to assert a sharp cut-off between internal and external, between mind and non-mind, between the mental processes that constitute cognition and the non-mental items about which we cognize. And this would be just as much of a mistake—just as much of a denial of continuity – as the claim that the line beneath the glass is either fully covered or fully non-covered, or the claim that the boundary between contiguous black and white surfaces is either fully black or fully white.

So the metaphysical aspect of Peirce’s denial of intuition is that there is no definite boundary between the external objects of cognition and the earliest stages of cognition itself. The former shade continuously into the latter. Following the regress of cognition backward, there is a gradual diminution of consciousness, and “when we reach the point which no determining cognition precedes we find the degree of consciousness there to be just *zero*, and in short we have reached the external object itself, and not a representation of it.” (W 2: 179, 1868). Moving along this continuum in the opposite direction, from the external to the internal, non-mind gradually shades off into mind, with no determinate boundary between the two.

In the sequel to this paper, I will argue that the “objective idealism” of Peirce’s cosmological series of 1891-93 is at bottom the same position regarding the continuity of mind and non-mind that Peirce defended decades before – in short, it is the metaphysical aspect of his denial of intuition.<sup>29</sup>

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29 I presented an earlier, much shorter version of this article and its prequel at the fall 2009 meeting of the Georgia Philosophical Society, in Atlanta, Georgia, and at the 2010 meeting of the Society for the Advancement of American Philosophy, in Charlotte, North Carolina. I am grateful to the audience members of each meeting for their questions and comments, as well as to Scott Forschler for his helpful commentary during the SAAP meeting. I am also grateful to T. L. Short for extremely helpful correspondence and comments on an early draft.

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