

# *Having an Idea of Matter: A Peircean Refutation of Berkeleyan Immaterialism*

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In his *Principles of Human Knowledge*, Berkeley opposes the “opinion strangely prevailing amongst men” that the objects of our senses inhere in an insensible matter that cannot itself be perceived.<sup>1</sup> In its stead, Berkeley espouses a form of idealism, which he calls “immaterialism.”<sup>2</sup> As it turns out, however, a major problem for Berkeley’s argument is that what makes the hypothesis of insensible matter untenable seems to apply equally to spirits. As is well known, Berkeley tries to circumvent this result by claiming that although we cannot have an *idea* of spirit we can at least have a *notion* of it. Unfortunately, he fails to give a clear account of what this “having a *notion* of a spirit” means. This has led to the objection, raised most prominently by Hume and embraced by many after him, that the hypothesis of spirit must also be discarded. I am going in the opposite direction. I will argue that Berkeley is in fact committed, on his own terms, to accept that we *can* have an *idea* of matter, and, consequently, that he must abandon the view that reality consists solely of spirits with ideas. Interestingly, this

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<sup>1</sup> *Principles of Human Knowledge*, section 4; in *The Works of George Berkeley Bishop of Cloyne*, 9 vols., ed. A. A. Luce and T. E. Jessup (London: Nelson, 1948–57), vol. 2; hereafter referred to as *Principles*. Since they tend to be uniform throughout different editions, wherever possible section numbers are used when referring to Berkeley’s writings.

<sup>2</sup> *Three Dialogues Between Hylas and Philonous*, page 257 (Luce and Jessup, *op. cit.*, vol. 2); hereafter referred to as *Dialogues*.

reinstatement of corporeal, or unthinking, matter need not undermine Berkeley's *esse* is *percipi* doctrine.

In my discussion of Berkeley's views on matter I will expand upon an argument that is brought forward by the American philosopher Charles Sanders Peirce.<sup>3</sup> Peirce shows not only that we can have an *idea* of Berkeley's unthinking matter, but also that Berkeley's denial of matter results from a failure to recognize the true function of the hypothesis of matter.

From the *Principles* onward, Berkeley maintains a substance-attribute view. He seeks to explain the objects of our perception by showing how they depend on a self-sufficient ground that is the cause of their being, character, and unity. He believes it necessary to suppose such a substance, on the ground that the ideas we perceive are entirely passive. This means that an explanation of our perceptions wholly in terms of ideas cannot suffice, as such an explanation cannot account for our perception of the succession of our ideas, in which "some are anew excited, others are changed or totally disappear."<sup>4</sup> Consequently, Berkeley calls the view that ideas can exist entirely on their own "evidently absurd"<sup>5</sup> and "repugnant."<sup>6</sup> Instead, he argues, there must be "some cause of these ideas whereon they depend, and which produces and changes them."<sup>7</sup>

The substance-attribute view was prominently defended by John Locke

<sup>3</sup> The influence of Berkeley on Peirce is noted by several authors. See for instance: H. S. Thayer, "Berkeley and Some Anticipations of Pragmatism," in *Meaning and Action: A Critical History of Pragmatism* (New York: Bobbs-Merrill, 1968), 499–507; Charles S. Hardwick, "Berkeley and Peirce," in *Proceedings of the C. S. Peirce Bicentennial International Congress*, ed. Kenneth L. Ketner (Lubbock: Texas Tech Press, 1981), 81–85; David Pfeifer, "George Berkeley: Precursor of Peircean Semiotic," *Zeichenkonstitution, Akten des 2. Semiotischen Kolloquiums, Regensburg 1978*, ed. A. Lange Seidl (New York: Walter de Gruyter, 1981), 1: 67–74; James A. Moore, "The Semiotic of Bishop Berkeley: A Prelude to Peirce," *Transactions of the Charles S. Peirce Society* 20 (1984): 325–42; Cornelis de Waal, "The Real Issue Between Nominalism and Realism, Peirce and Berkeley Reconsidered," *Transactions of the Charles S. Peirce Society* 32 (1996): 425–42; Lesley Friedman, "Pragmatism: The Unformulated Method of Bishop Berkeley," *Journal of the History of Philosophy* 41 (2003): 81–96.

<sup>4</sup> *Principles*, sect. 26.

<sup>5</sup> *Principles*, sect. 135.

<sup>6</sup> *Principles*, sect. 146. Early on, in his *Philosophical Commentaries* (Luce and Jessup, *op. cit.*, vol. 1), which contain much of the material he uses to write the *Principles*, Berkeley suggests the view that there are only ideas (esp. entries 580f), a view he later rejects as can be inferred from the + sign that is added in the margin, as well as from subsequent entries (e.g., entry 872). For a discussion of Berkeley's flirtation with a bundle theory of ideas, see, e.g., A. C. Grayling, *Berkeley, The Central Arguments* (London: Duckworth, 1986), 157.

<sup>7</sup> *Principles*, sect. 26.

in his *Essay Concerning Human Understanding*.<sup>8</sup> Berkeley follows Locke in that substance, whether material or spiritual, can never be perceived directly, but must be inferred from its effects. This is especially clear from how he formulates the issue in *The Theory of Vision Vindicated and Explained*, where he writes:

When we have well understood and considered the nature of vision, we may, by reasoning from thence, be better able to collect some knowledge of the external, unseen Cause of our ideas, whether it be one or many, intelligent or unintelligent, active or inert, body or spirit.<sup>9</sup>

This means that matter and spirit are both explanatory hypotheses (i.e., conclusions from arguments that run from perceived effects to unperceived causes) that are raised to explain the being, character, and unity of the objects that come before the mind, that is, of our ideas. For the purpose of this paper I will take this adherence to a substance-attribute view for granted.

The main purpose of Berkeley's *Principles* is to show that the hypothesis of spirit is the right one. Berkeley does this by arguing that the hypothesis of matter is untenable. Since Berkeley remains faithful to the substance-attribute view, and since—immersed in the Cartesian tradition as he was—he takes for granted that matter and spirit are the only two alternatives, a successful refutation of the hypothesis of matter allows him to conclude that all substance must be spirit. This is exactly what he does. After his refutation of matter, he concludes that “there is not any other substance than spirit, or that which perceives.”<sup>10</sup> I will call this argument, which returns several times in the *Principles*, Berkeley's argument from exclusion.

It is often said that Berkeley denies the existence of matter and that he can thus be characterized as an immaterialist, which is also a conclusion to which he himself comes. It should be noted, however, that Berkeley does not deny the existence of *all* matter, but only of what he calls “unthinking matter.”<sup>11</sup> With this he means the unknown, unthinking, senseless sub-

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<sup>8</sup> John Locke, *An Essay Concerning Human Understanding*, ed. Peter H. Nidditch (Oxford: Oxford University Press, 1975), esp. bk. II, chap. 23. All references to Locke's *Essay* are to this edition by book, chapter, and section number.

<sup>9</sup> *The Theory of Vision Vindicated and Explained*, sect. 17 (Luce and Jessup, *op. cit.*, vol. 1).

<sup>10</sup> *Principles*, sect. 7.

<sup>11</sup> *Principles*, sect. 93.

stance, which many of his contemporaries believe to exist external to all mind, and which are taken to provide the support of those ideas called “sensations.” In the *Principles*, Berkeley replaces this hypothesis with the, in his eyes, more successful hypothesis of a thinking substance, or spirit. As the following table of purportedly synonymous terms for matter and spirit shows, the thinking substance Berkeley called “spirit” may also be called “thinking matter.”<sup>12</sup>

<i>matter</i>	<i>spirit</i>
substratum	—x—
senseless substance	—x—
unperceiving substance	perceiving substance
corporeal substance	incorporeal substance
material substance	immaterial substance
unthinking substance	thinking substance
unthinking matter	[thinking matter]
inactive substance	active substance
inert substance	—x—
unperceived substance	—x—
—x—	spiritual substance

Rephrasing the issue in these terms shows that the real question is not whether there is matter or not, but whether this matter is of the thinking or the unthinking kind. Thinking about matter and spirit this way also facilitates Berkeley’s exclusion argument, as it clearly reveals that showing that no matter can be unthinking matter suffices for proving that all matter must be thinking matter.

A direct consequence of this type of argument is that it allows Berkeley to get away with saying little if anything about the spirit hypothesis itself, and Berkeley’s discussion of spirits in the *Principles* remains indeed cursory and unsatisfactory. In part Berkeley’s meager account of spirits is due to external circumstances. Judging from remarks made in the *Philosophical Commentaries*, the never-published second book of the *Principles* was intended to deal with spirits.<sup>13</sup> However, as Berkeley later explained to Sam-

<sup>12</sup> With the exception of “inactive substance” (which appears in *Dialogues*, 216), entries in the left column can be found respectively in *Principles* sects, 7, 9, 76, 9, 17, 7, 93, 68, and 71. With the exception of “perceiving substance” (which appears in *Dialogues*, 181), and of course the phrase “thinking matter,” the entries in the right column appear in *Principles* sects. 26, 99, 33, 26, and 139.

<sup>13</sup> See his *Philosophical Commentaries* entries 792 and 807; in entry 583 Berkeley also makes mention of a third volume.

uel Johnson, he lost the manuscript during his Italian travels and never gathered the courage to “do so disagreeable a thing as writing twice on the same subject.”<sup>14</sup> It is significant that Berkeley not only decided against composing a new version of this lost work, but also that with the exception of minor insertions in the second edition of the *Principles* he does not revisit the issue. In fact, the disappointing additions to the second edition of the *Principles*—most significantly his infamous “doctrine” of notions—are a clear testimony that Berkeley encountered major obstacles when he tried to develop a positive account of spirits. Nonetheless, to develop such a positive account is of crucial importance to Berkeley, since, as he comes to realize early on, the exact same argument he uses to dismiss the hypothesis of matter—namely that we cannot form ourselves an *idea* of it—appears to apply with equal force to the hypothesis of spirit. Let me, therefore, start with a discussion of Berkeley’s denial of matter.

#### BERKELEY’S DENIAL OF MATTER

According to Berkeley, the hypothesis of matter is raised as an attempt to explain the presence of our ideas and the regularities we perceive among them. Some of our ideas can be explained by holding that they are the product of our own understanding. But not all of our ideas seem to be like this, especially not sensory impressions. To explain the presence and regularities of this group of ideas, some have posited unknown and unknowable corporeal substances as their cause. It is this hypothesis of an unthinking and unknowable corporeal substance that is the main target of Berkeley’s attacks.<sup>15</sup> Halfway through the *Principles*, Berkeley refers to four of such hypotheses and dismisses them all. Using the term “occasion” where Locke speaks of *substratum*, he distinguishes the occasion without sensible qualities,<sup>16</sup> the occasion without qualities known by our present senses,<sup>17</sup> the occasion of a completely unknown entity,<sup>18</sup> and indefinite exist-

<sup>14</sup> Luce and Jessup, *op. cit.*, 2:282.

<sup>15</sup> Although Berkeley’s prime target is a type of materialism that he believes is advocated by Locke and Descartes, the argument is not confined to a refutation of this type of materialism only, nor is it meant to be. In his notebooks Berkeley mentions a number of doctrines, most of which are largely forgotten today: “Anima Mundi, Substantial forms, Omniscent radical Heat. Plastic virtue. Hylarchic principle. All these vanish” (*Philosophical Commentaries*, entry 617).

<sup>16</sup> *Principles*, sect. 67f.

<sup>17</sup> *Principles*, sect. 77f.

<sup>18</sup> *Principles*, sect. 79.

tence.<sup>19</sup> (Traces of all four of these hypotheses can be found in Locke's *Essay*.) Let me run briefly through all four of Berkeley's hypotheses, starting with the second.

The second hypothesis, which takes matter to be something that would have been known had we only the appropriate senses, Berkeley rejects on the ground that a new sense can provide us only with new ideas, not with the origin of the ideas we already have. Hence, the quest for a *substratum* remains in full force.<sup>20</sup>

The other three hypotheses are all dismissed on the ground that they fail to have any explanatory value. To posit a substance without any sensible qualities, as is done on the first hypothesis, is to posit something that is entirely unable to give any explanation as to the origin and regularities of the ideas of which we are not ourselves the author.

The same can be said of the third hypothesis, which posits a completely unknown *substratum*, and of the fourth hypothesis, which sees *substratum* as an "unknown somewhat, neither substance nor accident, spirit nor idea, inert, thoughtless, indivisible, immoveable, unextended, existing in no place."<sup>21</sup>

To posit such unknowable objects, Berkeley maintains, serves no purpose whatsoever: "I would fain see any one explain any the meanest phenomenon in Nature by it, or shew any manner of reason, though in the lowest rank of probability, that he can have for its existence; or even make any tolerable sense or meaning of that supposition."<sup>22</sup> It is useless to posit their existence, since whether they exist or not makes not the slightest difference to us. Should such unknowable substances exist, we would still not be able to know them; should they not exist, we would still have the very same reasons to believe in their existence as we have now.<sup>23</sup>

Since it does not make any difference to us whether they exist or not, *positing* their existence cannot make any difference to us either. Hence, even if we were to be charitable to the advocates of the hypothesis of matter and allow for the possibility of such unknowable entities, we would still not be able to give, as Berkeley puts it, "any reason why one should believe it, nor assign any use to it."<sup>24</sup> This, however, takes away the very motive we had for raising the hypothesis in the first place, which is to explain the

<sup>19</sup> *Principles*, sect. 80f.

<sup>20</sup> *Principles*, sect. 78.

<sup>21</sup> *Principles*, sect. 80.

<sup>22</sup> *Principles*, sects. 72, 77.

<sup>23</sup> *Principles*, sect. 20.

<sup>24</sup> *Principles*, sect. 22.

origin and regularities of those ideas of which we are not ourselves the origin.

Showing that a hypothesis is useless, however, does not prove it wrong. As Berkeley admits, there is no contradiction in presupposing something useless.<sup>25</sup> Berkeley goes a step further, however. Not only does he claim the hypothesis is useless, but he also shows that the hypothesis cannot be formulated without falling into absurdity. The key to his argument is that the matter posited here by hypothesis is absolutely unknowable. This is a crucial prerequisite for Berkeley, since otherwise matter would become an idea (even if it were perceived only by God), and we would be grounding ideas in ideas. As noted above, Berkeley believes that the view that ideas can exist entirely on their own is “evidently absurd” and “repugnant.”<sup>26</sup>

Now, since we cannot have an idea of the material substance that is posited in the hypothesis of matter, we also cannot have an idea about how this material substance is supposed to be related to our ideas. Berkeley insists that we can only relate two objects in thought when we conceive them both. This view can already be found in Berkeley’s first notebook: “A man cannot compare 2 things together without perceiving them each.”<sup>27</sup> And later in the *Alciphron*, Berkeley has Euphranor ask,

Pray inform me, Alciphron, in order to frame a proof of any kind, or deduce one point from another, is it not necessary, that I perceive the connexion of the terms in the premises, and the connexion of the premises with the conclusion; and, in general, to know one thing by means of another, must I not first know that other thing?<sup>28</sup>

The question is answered in the affirmative. But if this is true, then we cannot consistently formulate the hypothesis that our ideas “originate in” or are “supported by” material substances, since this presupposes that we know what this relation is. Put differently, the hypothesis of matter tacitly assumes that we can relate cognitions with incognizables. This, Berkeley argues, is absurd, as it implies the cognizability of incognizables. The upshot of all of this is that Berkeley concludes that the hypothesis of matter cannot be maintained.

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<sup>25</sup> *Principles*, sect. 79.

<sup>26</sup> *Principles*, sects. 135, 146.

<sup>27</sup> *Philosophical Commentaries*, entry 51.

<sup>28</sup> *Alciphron, or the Minute Philosopher*, 4.8 (Luce and Jessup, *op. cit.*, vol. 3); referred to by dialogue and section number.

Advocates of the hypothesis of matter grant that Berkeley is right when he says that we perceive nothing but our own ideas. However, they continue, reflection upon these ideas shows that they are constrained. This, they say, implies that we are not the full author of these ideas, which subsequently leads them to conclude that there must be something outside the understanding that is the origin or cause of the ideas of which we are not ourselves the author.

To facilitate the discussion of this argument, I will distinguish the use of terms when they apply to the realm of ideas (from which they are derived and to which they, according to Berkeley, properly refer) from situations where they are used to express a relation between our ideas and the things themselves, by underlining terms when they are used in the latter sense. The materialist's conclusion suggests that there is some relation between our ideas on the one hand and things that are not ideas (i.e., their causes) on the other. According to the materialist, these so-called things themselves exist, they are located without the understanding, and they are related to specific ideas as their cause or origin. Locke fits this pattern very well. He frequently uses terms such as "support,"<sup>29</sup> "subsist in,"<sup>30</sup> "flow from,"<sup>31</sup> "external,"<sup>32</sup> to refer to the relation between incognizable *substratum* and ideas.

To this line of thinking Berkeley objects that it blindly assumes that terms which derive their entire meaning and reference from the realm of ideas can be applied *without any change in meaning* to express the relation between ideas and what we might call incognizables. For Berkeley, terms like "exist," "thing," "relation," "cause," "support," all derive their meaning strictly from the realm of ideas.

Berkeley criticizes the assumption that terms used to relate thoughts with one another can be used without any change in meaning to relate our thoughts with incognizable entities, in section 16 of the *Principles*. This section is worth quoting in full:

But let us examine a little the received opinion. It is said extension is a mode or accident of matter, and that matter is the *substratum* that supports it. Now I desire that you would explain what is

<sup>29</sup> E.g., *Essay*, I.4.19.

<sup>30</sup> E.g., *Essay*, II.23.1.

<sup>31</sup> E.g., *Essay*, II.23.30.

<sup>32</sup> E.g., *Essay*, IV.13.2.



meant by matter's *supporting* extension: say you, I have no idea of matter, and therefore cannot explain it. I answer, though you have no positive, yet if you have any meaning at all, you must at least have a relative idea of matter; though you know not what it is, yet you must be supposed to know what relation it bears to accidents, and what is meant by its supporting them. It is evident *support* cannot here be taken in its usual or literal sense, as when we say that pillars support a building: in what sense therefore must it be taken?

Thus, when someone claims that our thoughts are supported by something incognizable, as Locke does repeatedly, or that the incognizable exists without the mind, or that it is extended, those words, Berkeley continues, "cannot be understood in the common sense."<sup>33</sup> Instead they must be taken "in some other sense, but what that is they [i.e., the materialists] do not explain."<sup>34</sup> Because of this, Berkeley concludes that when talking about incognizable entities, the words used must be taken "in some abstract and strange meaning . . . which I am not able to comprehend."<sup>35</sup>

It should be noted that Locke admits and treats as unproblematic that we have quite often a clear idea of a relation in cases where we have only a very vague idea of the relata. We have, for instance, a clear idea of fatherhood, even though we have no clear idea of man (the first being a complex idea of mode, the latter being a complex idea of substance).<sup>36</sup> Such cases differ, however, from the situation that is discussed here. In cases like fatherhood, the relation holds between positive ideas—the relata involved are nominal essences that are acknowledged to be incomplete. In the case of *substratum* or incognizable matter, in contrast, we cannot possibly have such a nominal essence because such a nominal essence would be made up of ideas, and *substratum*, by its very definition, is something *other* than ideas (otherwise we would lapse back into a sort of bundle theory, an option both Berkeley and Locke reject).

From Berkeley's analysis of the assumed relationship between our cognitions and their incognizable causes, it thus follows that we cannot conceive of something like *substratum*, or things themselves, or a "real being

<sup>33</sup> *Principles*, sect. 17.

<sup>34</sup> *Principles*, sect. 17.

<sup>35</sup> *Principles*, sect. 68.

<sup>36</sup> See *Essay*, II.25.8

and existence of things," that falls outside the scope of our knowledge and acts as the cause of some of our ideas. This makes the materialist's claim that our thoughts are constrained by something existing external to the mind an altogether meaningless claim. It is, as Berkeley puts it, nothing but "an empty sound, without any intelligible meaning annexed to it."<sup>37</sup>

The result is that, for Berkeley, the hypothesis of matter is either meaningless or self-contradictory.<sup>38</sup> The hypothesis is self-contradictory when the terms denoting incognizables, or the way in which incognizables relate to our cognitions, are taken in their ordinary sense; this, because it tacitly assumes the incognizable to be cognizable. But on the other hand, if all terms do indeed derive their meaning from our cognitions and are also meaningfully applicable only to cognitions, then the only alternative to being self-contradictory is that the hypothesis becomes meaningless. (Berkeley acknowledges that one may use meaningless terms as one pleases, "without danger of running into a contradiction.")<sup>39</sup>

Berkeley's argument thus comes close to a *reductio ad absurdum*. He begins with granting that the hypothesis of unthinking matter can be raised, upon which he shows that doing so inevitably leads to a "contradiction,"<sup>40</sup> or, as he also phrases it, a "repugnancy."<sup>41</sup> It appears, however, that Berkeley's argument falls short of a full-fledged *reductio*. The materialist does not contradict himself as long as he admits that any terms that are used to relate our ideas to his incognizable matter are meaningless. He may even proceed further by saying that the mere fact that we cannot ascribe any meaning to them today does not imply that no meaning can ever be given to them. What Berkeley's criticism does succeed in, though, is shifting the burden of proof firmly on the shoulders of the materialist. If the hypothesis of matter is meant to be an explanatory hypothesis rather than a conversation stopper, it is imperative that the materialist shows how one can speak meaningfully about this relation between our ideas and this incognizable substratum.

<sup>37</sup> *Principles*, sect. 150.

<sup>38</sup> Berkeley draws the conclusion that the hypothesis of an incognizable *substratum* leads to a contradiction in *Principles* sects. 22, 24.

<sup>39</sup> *Principles*, sect. 79. I thereby depart from Jonathan Bennett, who concludes that if the notion of an unperceived existence is meaningless it can never lead to a contradiction. See his *Locke, Berkeley, Hume, Central Arguments* (Oxford: Clarendon Press, 1971), 128ff. Instead, a complete account of Berkeley's view is the following: *if one takes the terms in their usual sense it will lead to a contradiction; if not, what one says is just meaningless.*

<sup>40</sup> *Principles*, sect. 4.

<sup>41</sup> *Principles*, sect. 17.

## THE EXCLUSION ARGUMENT REVISITED

This brings us back to Berkeley's argument from exclusion. In this argument Berkeley concluded from the failure of the hypothesis of unthinking matter, that the hypothesis of spirit must be the right one. For this argument to work, however, at least one essential requirement has to be fulfilled, namely, that the arguments that are taken to be destructive to one horn of the dilemma should not with equal force apply also to the other. As noted before, this condition does not seem to be fulfilled here, which jeopardizes Berkeley's exclusion argument.

The gist of Berkeley's argument against matter is that since we cannot have an *idea* of corporeal substance, we cannot frame the hypothesis of corporeal substances as an explanation for the ideas we have and the regularities holding among them. However, precisely the same can be said of spirits. As Berkeley repeatedly acknowledges, we cannot have an *idea* of spirits: "The words will, soul, spirit, do not stand for different ideas, or in truth, for any idea at all, but for something which is very different from ideas."<sup>42</sup> But if we cannot have an *idea* of spirits, then positing them to explain the presence of our ideas and the regularities among them is as useless an explanation as the hypothesis of matter was before. Moreover, the very same reason why we cannot even raise the hypothesis of matter without falling into absurdity, or utter words without meaning, holds equally for the hypothesis of spirit. If we cannot have an *idea* of spirits, then we also cannot relate them to our ideas. Hence, if Berkeley's argument against the hypothesis of matter is indeed successful, as he claims it is, then it seems to apply with equal force to the alternative hypothesis of spirit.<sup>43</sup>

To avoid this, Berkeley adds in the second edition of the *Principles* his doctrine of notions: though we cannot have an *idea* of spirit, we can at least have a *notion* of it. As he puts it, "It must be owned at the same time, that we have some notion of soul, spirit, and the operations of the mind, such as willing, loving, hating, inasmuch as we know or understand the meaning of those words."<sup>44</sup> Unfortunately, Berkeley's account of what this "having a notion of something" amounts to is disappointing. Nowhere does he make

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<sup>42</sup> *Principles*, sect. 27 (see also sects. 138, 142).

<sup>43</sup> Early on, while confirming Berkeley's denial of matter, Peirce gives this reading: "The doctrine is good against an absolute matter. But an equally strong argument could be brought against an absolutely existing spirit" (*Writings of Charles S. Peirce: A Chronological Edition*, ed. Peirce Edition Project [Bloomington: Indiana University Press, 1982- ], 1:348; hereafter referred to as *Writings*).

<sup>44</sup> *Principles*, sect. 27; see also sects. 140, 142.

explicit what it means to have a notion of something as opposed to having an idea of it, leaving it up to the reader to make sense of it solely on the basis of Berkeley's occasional usage of the term. Since I am arguing here that we *can* have an *idea* of matter, I will largely ignore Berkeley's "doctrine of notions," which I take to be a failed *ad hoc* addition intended to save the main thrust of his philosophy.

In my claim that Berkeley must acknowledge, on his own terms, that we can have an *idea* of matter, I will draw mainly upon an argument brought forward by Charles Sanders Peirce in his largely ignored review of the 1871 Fraser edition of Berkeley's *Works*.<sup>45</sup> In this review, Peirce argues that Berkeley has a mistaken idea about the true function of the hypothesis of matter. According to Peirce, Berkeley assumes that the only purpose of the hypothesis is "to account for the production of ideas in our minds."<sup>46</sup> But this is not why the hypothesis is raised. The hypothesis of matter is raised, Peirce argues, "to account for (or formulate) the constant connection between accidents."<sup>47</sup> This is indeed the reason why Locke introduced his hypothesis of a *substratum*.<sup>48</sup> For Berkeley, this function is taken over wholly and directly by God, "by whom all things consist,"<sup>49</sup> and whose will "constitutes the Laws of Nature."<sup>50</sup> Peirce notes correctly that this line of argument forces Berkeley to assume right from the start that the unity of accidents is a rational one—i.e., a product of God's infinite wisdom. For the materialist, in contrast, this unity is, to use Peirce's phrase, "not of a *directly* intellectual origin."<sup>51</sup> For instance, the materialist may hold that this unity comes into being because it is statistically most likely. To put it differently, Berkeley's hypothesis of spirit, or thinking matter, seems to make much stronger presuppositions on how the world is than does the hypothesis of unthinking matter.<sup>52</sup>

<sup>45</sup> Peirce's extensive review of Fraser's edition of the works of Berkeley originally appeared in the *North American Review* 113 (October 1871): 449–72, and is discussed by Chauncey Wright in the *Nation* 13 (30 November 1871): 355–56. A second major review by Peirce, this time of the 1901 Fraser edition, appeared in the *Nation* 73 (1 August 1901): 95–96. A short notice of George Sampson's 1899 three-volume edition of Berkeley's works is attributed to Peirce as well, and appeared in the *Nation* 69 (24 August 1899): 154.

<sup>46</sup> *Writings*, 2:482.

<sup>47</sup> *Ibid.*

<sup>48</sup> *Essay*, II.23.1.

<sup>49</sup> *Principles*, sect. 146.

<sup>50</sup> *Principles*, sect. 32.

<sup>51</sup> *Writings*, 2:482.

<sup>52</sup> Peirce makes a similar remark regarding Hegel's determinism. Hegel's conclusion, "The whole universe and every feature of it, however minute, is rational and was constrained to be as it is by the logic of events, so that there is no principle of action in the universe

Thirty years after his first review of Berkeley, this time in a review of Fraser's second edition of Berkeley's *Works*, Peirce again stresses that Berkeley's denial of matter is the result of a misguided conception of what the term "matter" stands for, and Peirce raises the question whether Berkeley "has not overlooked certain of the constituents of the ordinary, instinctive notion of matter."<sup>53</sup> This emphasis on the *instinctive* notion of matter seems derived directly from Kant's finding that existence is not a real predicate. In the same review, Peirce remarks that with two exceptions Berkeley is "far better entitled to be considered the father of all modern philosophy than is Kant."<sup>54</sup> One of these exceptions is precisely, "the doctrine that existence is not a form to be conceived, but a compulsive force to be experienced."<sup>55</sup>

In part because of his readings of Berkeley and Kant, Peirce comes to distinguish between different types of ideas, or more precisely, since for Peirce all thought is in signs, of different types of thought-signs. In fact, the very idea that the objects that come before the intellect when we think—i.e., that ideas are signs—Peirce takes to be an essential element of Berkeley's philosophy. As Peirce puts it,

the truth of Berkeleyanism lies in his hinging all philosophy, all Coenoscopy, to borrow Bentham's excellent word, on the concept of SIGN; and his Methodeutic of Noology.<sup>56</sup>

In addition to the idea that all objects that come before the understanding when we think are signs, Peirce also agrees with Berkeley's principle that "an idea can be like nothing but an idea,"<sup>57</sup> a principle that played

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but reason," is, as Peirce puts it, "manifestly at variance with observation" (*Collected Papers of Charles Sanders Peirce*, 8 vols., ed. Charles Hartshorne, Paul Weiss, and Arthur Burks [Cambridge, Mass.: Harvard University Press, 1931–58], 6.218). Elsewhere, Peirce argues that scientific practice disconfirms the postulate that the universe is fully determined (*Collected Papers*, 6.46).

<sup>53</sup> *Charles Sanders Peirce: Contributions to The Nation* (4 vols.), ed. Kenneth L. Ketner and James E. Cook (Lubbock: Texas Tech University, 1975–87), 3:38.

<sup>54</sup> *Contributions to The Nation*, 3:36.

<sup>55</sup> *Contributions to The Nation*, 3:37. The other exception, which can only be identified with difficulty in the published version, is Kant's architectonic method of thought. The two exceptions are clearly distinguished in a draft of the article, which is preserved as manuscript R 1439. See Richard S. Robin, *Annotated Catalogue of the Papers of Charles S. Peirce* (Amherst: University of Massachusetts Press, 1967).

<sup>56</sup> Unpublished 1909 manuscript R 641 "Significs and Logic," 18. See Richard S. Robin, *op. cit.* See also *Collected Papers*, 6.481.

<sup>57</sup> *Principles*, sect. 9.

such a pivotal role in Berkeley's dismissal of Locke's *substratum* and similar "materialistic" hypotheses. Peirce reformulates Berkeley's principle in the following manner: "What we think of cannot possibly be of a different nature from thought itself."<sup>58</sup> As Peirce puts it four decades earlier,

If I think "white," I will not go so far as Berkeley and say that I think of a person seeing, but I will say that what I think is of the nature of a cognition, and so of anything else which can be experienced. Consequently, the highest concept which can be reached by abstractions from judgments of experience—and therefore, the highest concept which can be reached at all—is the concept of something of the nature of a cognition.<sup>59</sup>

Peirce remains close to Berkeley in spirit without following him too narrowly. For instance, whereas Berkeley maintains that to be is to be perceived, Peirce broadens this to something like "to be is to be perceivable," and by dismissing the visual overtones in the empiricists' notion of knowledge this becomes something like "to be is to be conceivable." As Peirce puts it, "Over against any cognition, there is an unknown but knowable reality; but over against all possible cognition, there is only the self-contradictory."<sup>60</sup>

This view is central to Peirce's philosophic outlook, as it lies directly behind his pragmatism and his pragmatic maxim, which runs as follows: "Consider what effects, that might conceivably have practical bearings, we conceive the object of our conception to have. Then, our conception of these effects is the whole of our conception of the object."<sup>61</sup> When later reminiscing on the origin of pragmatism, Peirce makes frequent references to Berkeley as a main source of inspiration, adding, interestingly, that it was primarily Berkeley's two books on vision that had inspired him at this point. In a letter to William James, dated 23 January 1903, Peirce goes even so far as to say, "Berkeley on the whole has more right to be considered the introducer of pragmatism into philosophy than any other man, though I was more explicit in enunciating it."<sup>62</sup> In short, Peirce agrees with Berkeley on two very crucial issues: first, he agreed that all our thought is in signs;

<sup>58</sup> *Collected Papers*, 6.339.

<sup>59</sup> *Writings*, 2:208.

<sup>60</sup> *Writings*, 2:208.

<sup>61</sup> *Writings*, 3:266.

<sup>62</sup> Quoted in Ralph B. Perry, *The Thought and Character of William James*, 2 vols. (Boston: Little Brown & Co., 1935), 2:425.

and second, he agreed that we cannot relate our cognitions to what cannot be cognized.

### THREE KINDS OF IDEAS

Where Peirce *disagrees* with Berkeley is where the latter holds that all signs, or ideas, are of one and the same kind. Signification, for Berkeley, ultimately means resemblance. True, when driven into a corner, Berkeley adds a different kind of signs that he calls notions, but this "doctrine of notions" remains a mere *ad hoc* addition that, as noted above, is never satisfactorily worked out. For Peirce, in contrast, there are very distinctly "three kinds of signs which are all indispensable in all reasoning."<sup>63</sup>

Peirce's differentiation of these three kinds of signs follows naturally from his doctrine of the categories, the ultimate components in terms of which any object of knowledge can be analyzed. Early on, Peirce reduced Kant's twelve categories to three and sought to give them a new grounding. To avoid any pollution by traditional metaphysical thought, Peirce names the three categories: firstness, secondness, and thirdness.

Put very briefly, Peirce's argument for the three categories runs as follows: anything that can possibly be thought of, or anything that can come before the understanding, brings with it the idea of some thing. This introduces the category of being a first, that is to say, of being entirely independent of any reference to anything else. Peirce calls this the category of "firstness." Everything that can be thought of, however, can also be *distinguished* from other things that can be thought of, even if this distinction is only one of negation. This introduces the category of being a second to something else, or "secondness." Having a first and a second, however, unavoidably brings in the notion of mediation, as any two things are always in some sort of relation, even if it is one of mere negation (i.e., when we say for *A* and *B* that *A* is not *B*). This introduces the third category, called "thirdness," which is that mode of being that derives its identity entirely from it relating two objects to one another. For instance, when a fox chases a rabbit, the relation of chasing can be distinguished from both the fox and the rabbit. Moreover, this relation is what it is purely by virtue of the relation between the fox and the rabbit. In short, anything that can be thought of—that is, any idea—has firstness, secondness, and thirdness.

The three categories, however, are not distributed evenly in all ideas so

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<sup>63</sup> *Writings*, 5:243.

that one category or another may dominate in a particular experience. When you are floating very relaxed in the Death Sea while surrounded by absolute silence and engulfed by a warmish heavy fog, your experience will be dominated by firstness. Though there is otherness, it is very unobtrusive. In contrast, when you are unexpectedly hit in the back of your head with a hard object, your experience of this will be dominated almost exclusively by secondness. It is only afterwards that you can relate that experience with yourself as the recipient of the blow, or with what caused it.

The above is, of course, only a very crude and rudimentary account of Peirce's doctrine of the categories.<sup>64</sup> However, for the immediate purpose of this paper it suffices to utilize its results and to discuss one of Peirce's more famous threefold classifications that derive from it—his distinction between icons, indices, and symbols—and compare this with Berkeley's notion of ideas.<sup>65</sup> For Peirce, icons, indices, and symbols differ as to whether their signifying capacity is dominated by the category of firstness, secondness, or thirdness.

The icon signifies through some aspect of its qualitative characteristics; characteristics it has no matter whether the object to which it refers exists and no matter whether anyone interprets it as a sign for something.<sup>66</sup> The road sign for crossing deer is an example of an icon. It signifies by being a stylized picture or diagram of that to which it refers. Because the sign refers through the characteristics of the sign itself—i.e., the five-sided flat sheet of yellow painted metal with the black silhouette of a slender quadruped—it refers independently of whether there are any deer. As with Locke's complex ideas of modes, the icon indicates what something must be like for it to count as a crossing deer; that is to say, for something to conform to the sign. A dairy cow wandering on the road, for instance, does not.

Given how icons signify, they have the following two characteristics: (1) they signify by *resembling* the objects to which they refer, and (2) as they are what they are independently of whether the objects to which they

<sup>64</sup> For a short but more extensive account, see Cornelis de Waal, *On Peirce* (Belmont, Calif.: Wadsworth, 2001), chapter 2. See also Kelly Parker, *The Continuity of Peirce's Thought* (Nashville: Vanderbilt University Press, 1998), 103–88, or Christopher Hookway, *Peirce* (London: Routledge, 1985), 80–117.

<sup>65</sup> An accessible overview of Peirce's division of thought signs is found in "What is A Sign?" in *The Essential Peirce*, vol. 2, ed. Peirce Edition Project (Bloomington: Indiana University Press, 1998). An application of Peirce's distinction of icon, index, and symbol to Berkeley's work can be found also in William McGowan, "Berkeley's Doctrine of Signs," in *Berkeley, Critical and Interpretive Essays*, ed. Colin M. Turbayne (Manchester: Manchester University Press, 1982), 231–47.

<sup>66</sup> *Collected Papers*, 2.247.



refer exist or not, they cannot give any assurance that there is anything besides the sign itself. A sign for crossing centaurs just as much warns of the danger of crossing centaurs as the sign for crossing deer does for deer. Not only does the icon represent no matter whether the object to which it refers exists or not, it also represents no matter whether it is actually interpreted as a sign or not. The solar system can be an icon of the structure of the atom, even if no one ever interprets it as such.

In contrast to the icon, which signifies through a characteristic that is the same no matter whether the object to which it refers exists or not, the index signifies through a character it would *not* have were the object to which it refers not to exist. Put differently, the index refers through what Peirce calls a "correspondence in fact"<sup>67</sup> or an "existential relation."<sup>68</sup> An index signifies not by resembling its object, but by indicating the presence or brute actuality of something (i.e., a second). The index, Peirce argues, functions like a pronoun: it forces attention to the object signified without describing it.<sup>69</sup> An example of an index is one's pointing in the direction of a house on fire. Whether the act of pointing signifies the fire does not at all depend, as with the icon, on a likeness between the act of pointing and the phenomenon pointed at, but on the actual presence, as Peirce puts it, of "some element of existence which, not merely by the likeness between its different apparitions, but by an inward force of identity, manifest[s] itself in the continuity of its apparition throughout time and in space, [as] distinct from everything else."<sup>70</sup> Put differently, the index reveals a dynamical connection between an external object and the senses and memories of a subject,<sup>71</sup> marking a brute actuality, a *then* and *there*, that *forces* itself upon the thinking mind. The notion of a brute actuality forcing itself upon the understanding recalls Locke's *substratum*, of which Locke holds that we cannot say *what* it is, but only *that* it is.<sup>72</sup> Since the index refers through a dynamical connection with an object that is presented to the mind, it is *persistence* rather than resemblance that determines its signifying capacity.

Thus, in contrast to the icon, which retains its signifying capacity irre-

<sup>67</sup> *Writings*, 2:56.

<sup>68</sup> *Collected Papers*, 4.572. Elsewhere Peirce writes, "One cannot escape the fact that some things are forced upon [one's] cognition. There is the element of brute force, existing whether you opine it exists or not" (*Collected Papers*, 2.138).

<sup>69</sup> *Collected Papers*, 1.369.

<sup>70</sup> *Collected Papers*, 3.460.

<sup>71</sup> *Collected Papers*, 2.305.

<sup>72</sup> For Peirce, this brute actuality need not be extramental. It enters also in the imaginary constructions of the mathematician, and even in dreams (*Collected Papers*, 2.305).

spective of whether the object it represents is present, or even exists, the index signifies “by virtue of a character which it could not have if its object did not exist.”<sup>73</sup> However, as with the icon, the index retains its signifying capacity independently of whether anyone interprets it as a sign or not. A can with a bullet hole in it, Peirce aptly observes, is a sign of a shot (without which the hole would not have been there), irrespective of whether “anybody has the sense to attribute it to a shot or not.”<sup>74</sup>

The last of the three basic types of signs that Peirce distinguishes is the symbol. What makes something a symbol is not its qualitative characteristics, as with the icon, or an existential relation with an object, as with the index. Instead it is an association made by an interpreter. A symbol, Peirce writes, is a “general name or description which signifies its object by means of an association of ideas or habitual connection between the name and the character signified.”<sup>75</sup> For instance, the noun “deer” represents not by resembling its object, nor through an existential relation with its object, but through an association made by those who use the word.<sup>76</sup>

Since the symbol is a sign purely in virtue of an association made by the interpreter, a symbol loses the character that makes it a sign if it were not interpreted.<sup>77</sup> In this sense the symbol differs from both the icon and the index, which retain the characteristic that makes them a sign irrespective of whether they are interpreted as a sign. In contrast, the character that makes the symbol a sign is wholly independent of any of its qualitative characteristics, as virtually anything can be taken as a symbol for anything (in which sense it differs from the icon), and is independent also of whether the object it signifies exists (in which sense it differs from the index). The word “centaur” is as much a symbol as is the word “deer.”

According to Peirce, these three types of signs cannot be reduced to one another and must be considered primitive. This follows directly from Peirce’s definition of a sign as “anything which is related to a Second thing, its *Object*, in respect to a Quality, in such a way as to bring a Third thing, its *Interpretant*, into relation to the same Object.”<sup>78</sup> This definition attributes three components to the sign: that which acts as a sign, that what is signified (the object), and the cognition that is produced (the interpretant). Because of this triple connection of *sign*, *object*, and *interpretant*, Peirce

<sup>73</sup> *Collected Papers*, 5.73.

<sup>74</sup> *Collected Papers*, 2.304.

<sup>75</sup> *Writings*, 5:243.

<sup>76</sup> *Collected Papers*, 4.447.

<sup>77</sup> *Collected Papers*, 2.304.

<sup>78</sup> *Collected Papers*, 2.92.

concludes that these three types of signs are irreducible, as each signifies in virtue of one of the three basic components of the sign. In the case of an icon, the sign signifies through itself; in the case of an index, the sign signifies through its object; and in the case of a symbol, the sign signifies through its interpretant.

Peirce's three basic forms of signs can be summarized in the following table:

Icon	Index	Symbol
The character by which it signifies is independent of whether or not the objects it signifies exist.	Signifies through a character it will have <i>only</i> when the objects it signifies exist.	The character by which it signifies is independent of whether or not the objects it signifies exist.
The character by which it signifies is independent of whether it is interpreted as such.	The character by which it signifies is independent of whether it is interpreted as such.	The character by which it signifies, it will have <i>only</i> when it is interpreted as such.

### THE PROPER ROLE OF INDICES

Peirce's distinction between three types of thought-signs, or ideas, puts his agreement with Berkeley's principle that an idea can never resemble anything that is radically different from an idea (as, for instance the nominalist's "things themselves") in an entirely new perspective. Instead of agreeing with Berkeley that this principle shows that there cannot be any corporeal matter, Peirce finds that it shows the exact opposite: "We must conclude, then, that the reason why different things *have to be differently thought of* is that their modes of metaphysical being are different."<sup>79</sup> More in particular, the presence of indices among the objects that come before the understanding when we think, shows, or reveals, the brute actuality of unthinking matter. Berkeley fails to see this, Peirce notes, and as a result he "blundered into his idealism."<sup>80</sup>

It should be noted that a division similar to Peirce's distinction between

<sup>79</sup> *Collected Papers*, 6.339; emphasis added.

<sup>80</sup> *Ibid.*

icons and indices can be found already in Locke's *Essay*. In the *Essay* Locke divides all objects that come before the understanding into simple and complex ideas, where the latter are compilations of the former. To Locke these simple ideas are either "exact Resemblances" or "constant Effects" of the things themselves.<sup>81</sup> The first type of simple ideas signifies as icons; the second type of simple ideas signifies as indices.

Berkeley too draws a distinction similar to Peirce's, and he does so even more clearly than Locke. After noting that all ideas are signs, Berkeley continues by noting, "In certain cases a sign may suggest its correlate as an image, in others as an effect, in others as a cause."<sup>82</sup> The first of these three types of signs is roughly equivalent with Peirce's icons; the latter two correspond with Peirce's indices. This means that it is not that Berkeley fails to recognize that there are at least two types of objects before the mind when we think, but that he fails to make proper use of it in his metaphysics. As noted before, when he is forced out of the position that all objects before the mind are ideas—which he takes to be all of an iconic nature—Berkeley seeks refuge in his "doctrine of notions." From the perspective of Peirce, what Berkeley should have argued for instead is that our knowledge of our own spirit, as well as that of other spirits (including God), is of an indexical nature as opposed to an iconic one.

Such an indexical interpretation of the exceptional status of spirits in Berkeley's philosophy fits in with Berkeley's own view that "spirit" and "will" are synonyms,<sup>83</sup> and with Peirce's view of the will as nothing but a brute force,<sup>84</sup> in virtue of which it falls under the category of secondness,<sup>85</sup> of which the index is the appropriate type of sign.<sup>86</sup>

It should be added, however, that although such an argument can be given for spirits, it is harder to defend that everything that Berkeley calls a notion is of an indexical nature. Other examples of Berkeley's notions are the Christian notion of grace<sup>87</sup> and the notion of relation,<sup>88</sup> for both of which Berkeley claims we cannot form ourselves an idea. Neither of them, however, is straightforwardly indexical. It might be that Peirce's third type

<sup>81</sup> *Essay*, II.30.2.

<sup>82</sup> *Theory of Vision Vindicated and Explained*, sect. 39 (Luce and Jessup, *op. cit.*, vol. 1).

<sup>83</sup> *Principles*, sect. 27.

<sup>84</sup> *Collected Papers*, 2.84.

<sup>85</sup> *Collected Papers*, 5.469.

<sup>86</sup> *Collected Papers*, 2.283; observe, however, that Peirce rejects Berkeley's equivocation of spirit with the will.

<sup>87</sup> *Alciphron* 7.4.

<sup>88</sup> *Principles*, sect. 89.

of signs, symbols, would allow us to maintain that the Berkeleyan notion of grace is neither iconic nor indexical. Without going further into this issue, it can at least be said that this third way out has at least a *prima facie* plausibility for Berkeley's non-indexical notions.

Now one might object to Peirce's division of signs that, in a round-about way, it reintroduces incognizable objects as an explanation for the appearance of indices before the understanding, namely, by claiming that their appearance is *caused* by these objects. Should this be the case, Berkeley's criticism of materialism also applies to Peirce's interpretation of it.

This objection, however, results from a failure to do full justice to the nature of indices. More specifically, it treats them as if they were icons. We saw, however, that how indices signify differs greatly from how icons signify. Whereas icons signify through resembling what it signifies, indices signify by standing in a dynamical relation to what they signify. Put differently, the appearance of an index before the understanding reveals the presence of a brute actuality. The issue is thus not whether the index *resembles* what it refers to, as with the icon, but whether what it refers to *is actually there*. Now what follows from this? By revealing the presence of a brute actuality, the index provides information about the object encountered. This, however, has nothing to do with a purported resemblance of the sign with the object it represents; an object, so to speak, that itself remains hidden behind a veil of ideas. Indices, moreover, manifest themselves always together with other ideas—either concurrently or sequentially—including icons, symbols, and also other indices. By being repeatedly confronted with indexically revealed objects, we obtain more knowledge about the latter, which can be fit in with the rest of our knowledge. The ideas associated with different encounters can be related, regularities can be abstracted, future occurrences can be predicted, etc. Consequently, the objects to which indices refer are not at all incognizable, as Locke claims, but on the contrary, they can be known, at least in principle, through our experience with them.

What is significant of this approach is that our knowledge of what indices refer to does not at all depend on how our ideas relate to their so-called incognizable causes, but depends instead on how these indices fit within the rest of our ideas. This agrees with Berkeley's position, since for him, as for Locke before him, knowledge is essentially the perception of an agreement or disagreement of what comes before the mind when we think; i.e., of our ideas.

One might still object that such indices give us only a partial knowl-

edge of what is responsible for their occurrence among our ideas. This is not problematic as long as it does not commit us to acknowledge that those parts we do not know are incognizable. Three interpretations can be distinguished at this point. On the first it is practically feasible (in the long run) to obtain adequate knowledge of what is responsible for the occurrence of indices among our ideas. On the second, it is not practically feasible but in principle possible to obtain such knowledge. On the third, it is not even possible in principle to obtain such knowledge. It is only the last of the three interpretations that makes Peirce's account vulnerable to the criticism Berkeley raises against the materialists of his day.

Peirce denies, however, the third interpretation, and his view seems to be wavering between the first and the second. Since the second, more defensible interpretation suffices for our purpose, I will concentrate on this and show Peirce's arguments why it is at least in principle possible to obtain adequate knowledge (in Locke's sense) of that which is responsible for the occurrence of indices among our ideas. Peirce begins with the hypothesis that there is a reality, i.e., something independent of what anyone in particular thinks it to be. This hypothesis, that there is a reality, is shared also by Berkeley and by the materialists he opposes. According to Peirce, this hypothesis allows for two interpretations. On the first, only the absolutely external causes of our ideas are real. Both Berkeley and the materialists Berkeley opposes tend toward this interpretation.

The second interpretation begins with the recognition that the thoughts of every individual contain "an arbitrary, accidental element, dependent on the limitations in circumstances, power, and bent of the individual; an element of error, in short."<sup>89</sup> During a prolonged process of inquiry by a community of inquirers, Peirce argues, such individual errors will eventually be filtered out, so that human opinion as a whole "tends in the long run to a definite form, which is the truth."<sup>90</sup> Peirce calls this end result of inquiry the final opinion, and argues that reality is the object of this final opinion; there is nothing beyond that. Peirce arrives at this latter conclusion by applying his pragmatic maxim—which, as noted, is nothing but a more explicit formulation of Berkeley's method—to the conception of reality.<sup>91</sup> If reality is indeed nothing but the object of this final opinion, then the object an index refers to is ipso facto nothing but the sum total of all possible indexical encounters with that object. Consequently, what the index refers

<sup>89</sup> *Writings*, 2:468.

<sup>90</sup> *Ibid.*

<sup>91</sup> *Writings*, 3:271.

to can in principle be known in its entirety. There is no remainder that cannot possibly be known, hence no part of the object to which the index refers is incognizable. This means that what is external to the understanding can eventually be known, at least in principle. It can further be known in a manner that does not depend on a resemblance or a conformity of our ideas with the things themselves, or on an iconic portrayal of the relation between such things themselves and our ideas (i.e., by using ideas like "cause" or "support," which derive their whole meaning from certain perceived relations between ideas).

Peirce's approach allows for at least two observations regarding Berkeley's philosophy and his criticism of materialism. Distinguishing different types of ideas opens the way for accepting the hypothesis of unthinking matter, while at the same time, granting Berkeley his conclusion that the hypothesis of incognizable things themselves to explain the origin and regularities of some of our ideas is untenable. Second, the alternative brought forward by Peirce allows for the view (assuming we accept Berkeley's notion of an omniscient God, which Peirce does not) that God has a complete or adequate knowledge of those objects that are responsible for the occurrence of indices among our ideas. Since those objects would be nothing over and above the sum total of all possible indexical encounters with them, the object would be nothing but what it is perceived to be by God, who, in Berkeley's view, actually perceives all those encounters. This, in turn, means that the materialist *à la Peirce* can hold on to Berkeley's thesis that to be is to be perceived, or, to put it differently, a materialist need not deny Berkeley's *esse is percipi* principle.

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