

Semiotic Synechism: A Peircean Argumentation
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Abstract

Although he is best known as the founder of pragmatism, the name that Charles Sanders Peirce prefers to use for his comprehensive system of thought is "synechism" because the principle of continuity is its central thesis. This paper arranges and summarizes numerous quotations and citations from his voluminous writings to formalize and explicate his distinctive mathematical conceptions of hyperbolic and topical continuity, both of which are derived from the direct observation of time as their paradigmatic manifestation, and then apply them in normative science and metaphysics, especially logic as semeiotic and cosmology. The resulting conclusion is that the intelligibility of the universe is plausibly explained by conceiving it as one immense sign, a vast inferential process: a semiotic continuum whose connected constituent signs are indefinite until deliberately marked off, with God the Creator as its overall dynamical object in the infinite past and God completely revealed as its overall final interpretant in the infinite future.

Preface

"Philosophy is exegesis, an interpretation of the 'text' (or texture) of the world by means of an interpretation of the scriptures of the tradition" (Mackey 1973:266). For scholars of Charles Sanders Peirce, his voluminous writings serve as "the scriptures of the tradition," although he would have been the first to insist that they are by no means infallible. What would he have considered to be the proper approach for interpreting them?

A mass of facts is before us. We go through them. We examine them. We find them a confused snarl, an impenetrable jungle. We are unable to hold them in our minds. We endeavor to set them down upon paper; but they seem to be so multiplex intricate that we can neither satisfy ourselves that what we have set down represents the facts, nor can we get any clear idea of what it is that we have set down. But suddenly, while we are poring over our digest of the facts and are endeavoring to set them into order, it occurs to us that if we were to assume something to be true that we do not know to be true, these facts would arrange themselves luminously. (EP 2:531-532n12, 1903)¹

Peirce adds, "That is *abduction*." Had he substituted "texts" for each instance of "facts," he might rather have said, "That is *interpretation*." After all, "The logic of interpretation is the Peircean logic of abduction" (Eco 1994:59), especially when reading a prolific author who never compiled his own *magnum opus*.

Instead, he left behind "a confused snarl, an impenetrable jungle" of published articles, personal letters, and private manuscripts—tens of thousands of handwritten pages—many of

¹ Published writings by Peirce are cited as follows: CP with volume and paragraph number(s) for (1931-58), EP with volume and page number(s) for (1992-8), NEM with volume and page number(s) for (1976), SWS with page number(s) for (2020), and LF with volume and page number(s) for (2020-2024). Unpublished writings by Peirce (1839-1914) are cited as R with manuscript number as assigned by Robin (1967 or 1971) and page number(s) corresponding to the microfilm sequence as reproduced online using scanned images by the Digital Peirce Archive (<https://rs.cms.hu-berlin.de/peircearchive>) and the Scalable Peirce Interpretation Network (https://fromthepage.com/collection/show?collection_id=16), followed by handwritten page numbers [in square brackets] where different. For passages not published during Peirce's lifetime, the year of composition is that assigned by Robin unless subsequent investigation has produced an updated estimate as documented at Commens: Digital Companion to C. S. Peirce (<http://www.commens.org/>) or explained in a footnote.

them "multiplex intricate," and none of them definitive or final. Consequently, interpretive conclusions drawn from them are not usually necessary implications, but plausible explanations that require deductive explication followed by inductive evaluation. The last step involves returning to the texts themselves, as well as (wherever possible) others not in the "mass" that sparked the initial flash of insight.

The overall goal of this method of inquiry is discerning the author's intended meaning *as expressed* in the text itself, which is often the only available evidence of what the author had in mind when composing it. In Peirce's semeiotic terms, the aim is translating the immediate interpretant (as written) into a dynamical interpretant (as *actually* understood) that closely approximates the final interpretant (as *ideally* understood). These are all correlates of the sign, not independent determinations of its utterer:

The Immediate Interpretant is the Interpretant represented, explicitly or implicitly, in the sign itself. I have thus omitted the *intended* Interpretant. So far as the intention is betrayed in the Sign, it belongs to the Immediate Interpretant. So far as it is not so betrayed, it may be the Interpretant of *another* sign, but it is in no sense the Interpretant of *that* sign. (SWS:167, 1906)

Accordingly:

Hermeneutics is not so much the study of what an author intended as the study of what the author achieved. If meaning has an equivalence, it is to be located less in intention and more in achievement. What is achieved may be more or less than what the author intended; happily we can be generous and charitable in our initial judgments and trust that intention and achievement may coincide more often than not. In any case, the old proverb holds; actions speak louder than words; so it is the actions which should get our full attention. (Abraham 1988:20)

The "old proverb" epitomizes Peirce's pragmatism.

Moreover, "One generation collects premisses in order that a distant generation may discover what they mean" (CP 7.87, 1902). The purpose of this paper is to arrange a number of premisses that Peirce collected during his lifetime into an argument, or more precisely, an argumentation: "An 'Argument' is any process of thought reasonably tending to produce a definite belief. An 'Argumentation' is an Argument proceeding upon definitely formulated premisses" (CP 6.456, EP 2:435, 1908). Hopefully, this will assist present and future generations in discovering what those premisses mean by studying what Peirce achieved.

As the subtitle indicates, what follows is an ostensibly *Peircean* argumentation, not one that he himself ever explicitly presents. Each summary statement is a proposed interpretation of his texts (and the world) for the reader's consideration along with the accompanying quotations and citations, arranged in chronological order and omitting any paragraph breaks in the original to keep the formatting consistent. Additional commentary appears in footnotes.²

² This paper resulted from the author's brief presentation on April 15, 2023, "The Basis of Synechism in Phaneroscopy," as part of the Charles S. Peirce Society's 10-Minute Thesis Initiative. I am grateful to Richard Atkins for launching that project, Aaron Wilson for arranging and moderating the session, all the attendees for participating, and fellow speakers Gary Richmond and Gary Fuhrman for offering insightful feedback both beforehand and afterwards.

1 Prolegomena

- 1.1 Although Peirce is best known as the founder of pragmatism, it is only one component of his overall system of thought, which is synechism: "The tendency to regard continuity ... as an idea of prime importance in philosophy" (CP 6.103, EP 1:313, 1892).³
 - 1.1.1 I have proposed to make *synechism* mean the tendency to regard everything as continuous. ... I carry the doctrine so far as to maintain that continuity governs the whole domain of experience in every element of it. (CP 7.565-566, EP 2:1, 1893)
 - 1.1.2 Synechism is founded on the notion that the coalescence, the becoming continuous, the becoming governed by laws, the becoming instinct with general ideas, are but phases of one and the same process of the growth of reasonableness. This is first shown to be true with mathematical exactitude in the field of logic, and is thence inferred to hold good metaphysically. (CP 5.4, 1902)
 - 1.1.3 We here reach a point at which novel considerations about the constitution of knowledge and therefore of the constitution of nature burst in upon the mind with cataclysmal multitude and resistlessness. It is that synthesis of tychism and of pragmatism for which I long ago proposed the name, Synechism, to which one thus returns; but this time with stronger reasons than ever before. (CP 4.584, 1906)⁴
- 1.2 Continuity is discovered in phaneroscopy, defined in mathematics, and applied in normative science and metaphysics, especially logic as semeiotic and cosmology.⁵
 - 1.2.1 For although mathematics has nothing to do with positive truth, yet its hypotheses are suggested by experience, and any theory for which there may be even imperfect evidence ought to be erected into a mathematical hypothesis, provided it be of such a nature that a great body of deductions can be drawn from it. (NEM 3:59, c. 1895)
 - 1.2.2 Every science has a mathematical part, a branch of work that the mathematician is called in to do. ... But there is none of these mathematical offices which constitutes

³ For a comprehensive overview of Peirce's philosophy that emphasizes the central role of continuity in it, see (Parker 1998). By contrast, Murphey contends that "Peirce was never able to find a way to utilize the continuum concept effectively" (1961:407), and Moore goes a step farther by asserting that it is dispensable anyway: "Peirce did not really need a theory of continuity, of the sort he thought he did, at all" (2015:1070; see also Moore 2013). Following Peirce's example, "The present paper is intended chiefly to show what synechism is, and what it leads to" (CP 6.103, EP 1:313, 1892), thus serving as a direct rebuttal of such claims.

⁴ This quotation—in conjunction with the statement more than a decade earlier, before William James began popularizing pragmatism in 1898, that synechism "carries along with it the following doctrines: first, a logical realism of the most pronounced type; second, objective idealism; third, tychism, with its consequent thorough-going evolutionism" (CP 6.163, EP 1:333, 1892)—implies that Peirce's version of pragmatism is a synthesis of logical realism and objective idealism. For a comprehensive overview of how he consistently affirms both realism and idealism in specific ways, see (Lane 2018). Moreover, like Peirce's pragmatism, "Synechism is not an ultimate and absolute metaphysical doctrine; it is a regulative principle of logic," in this case "prescribing what sort of hypothesis is fit to be entertained and examined" (CP 6.173, 1902).

⁵ Peirce's architectonic classification of the sciences is grounded in "the idea that one science depends upon another for fundamental principles, but does not furnish such principles to that other" (CP 1.180, EP 2:258, 1903). Specifically, all the positive sciences, beginning with philosophy, depend in this way upon the strictly hypothetical science of mathematics; within philosophy, metaphysics depends upon normative science, which depends upon phaneroscopy: Peirce's neologism for phenomenology as the study of the *phaneron*, "all that is in any way or in any sense present to the mind" (CP 1.284, 1905); and within normative science, logic depends upon ethics, which depends upon esthetics (CP 5.35-40, EP 2:142-144, 1903; CP 1.120-124, EP 2:196-197, 1903; CP 1.180-186, EP 2:258-260, 1903). Moreover, semeiotic is the generalization of logic to encompass all signs, not just symbols: "the doctrine of the essential nature and fundamental varieties of possible semiosis" (CP 5.488, EP 2:413, 1907). For a comprehensive overview of its first branch, speculative grammar, which is most relevant here, see (Bellucci 2018).

- quite so large a proportion of the whole science to which it is annexed as mathematical philosophy, for the obvious reason that the observational part of philosophy is a simple business, compared, for example, with that of anatomy or biography, or any other special science. (CP 1.133, 1901)
- 1.3 Our conception of continuity comes from directly observing the flow of time: "the continuum *par excellence*, through the spectacles of which we envisage every other continuum" (CP 6.86, 1898).⁶
- 1.3.1 To imagine time, time is required. Hence, if we do not directly perceive the flow of time, we cannot imagine time. Yet the sense of time is something forced upon common-sense. So that, if common-sense denies that the flow [of] time is directly perceived, it is hopelessly entangled in contradictions and cannot be identified with any distinct and intelligible conception. But to me it seems clear that our natural common-sense belief is that the flow of time *is* directly perceived. (NEM 3:60, c. 1895)
- 1.3.2 That this element [continuity] is found in experience is shown by the fact that all experience involves time. Now the flow of time is conceived as continuous. No matter whether this continuity is a datum of sense, or a quasi-hypothesis imported by the mind into experience, or even an illusion; in any case it remains a direct experience. (CP 7.535, 1899)
- 1.3.3 One opinion which has been put forward and which seems, at any rate, to be tenable and to harmonize with the modern logico-mathematical conceptions, is that our image of the flow of events receives, in a strictly continuous time, strictly continual accessions on the side of the future, while fading in a gradual manner on the side of the past, and that thus the absolutely immediate present is gradually transformed by an immediately given change into a continuum of the reality of which we are thus assured. The argument is that in this way, and apparently in this way only, our having the idea of a true continuum can be accounted for. (CP 8.123n, c. 1902)

2 Pure Mathematics

- 2.1 Each of the three kinds of conic sections in geometry is represented on the projective plane by a circle, distinguished only by its relation to the absolute as represented by the line at infinity (Figure 1)—zero intersections for an ellipse, one for a parabola, and two for a hyperbola (Matsko 2017), thus corresponding to the three universal categories: 1ns, 2ns, and 3ns.⁷
- 2.1.1 The category of 1st can be prescinded from 2nd and 3rd, and 2nd can be prescinded from 3rd. But 2nd cannot be prescinded from 1st, nor 3rd from 2nd. (CP 1.353, 1885)⁸

⁶ For an extensive treatment of Peirce's writings about time, including its continuity, see (Schmidt 2022).

⁷ Richmond (2005) introduces these convenient abbreviations for Peirce's universal categories—Firstness, Secondness, and Thirdness—which are used herein along with 1st/2nd/3rd for all references to them, including those in quotations where their names are spelled out in the original. They permeate his writings, as well as the secondary literature, most fundamentally as the three indecomposable elements that are always present together in the phaneron: 1ns as quality, 2ns as reaction, and 3ns as mediation (CP 1.530, 1903).

⁸ Peirce thus extracts his three discrete categories from the continuous phaneron by means of prescission, or precise abstraction, which "consists in supposing a state of things in which one element is present without the other, the one being logically possible without the other" (EP 2:270, 1903). This is illustrated by Figure 1: (a) can be

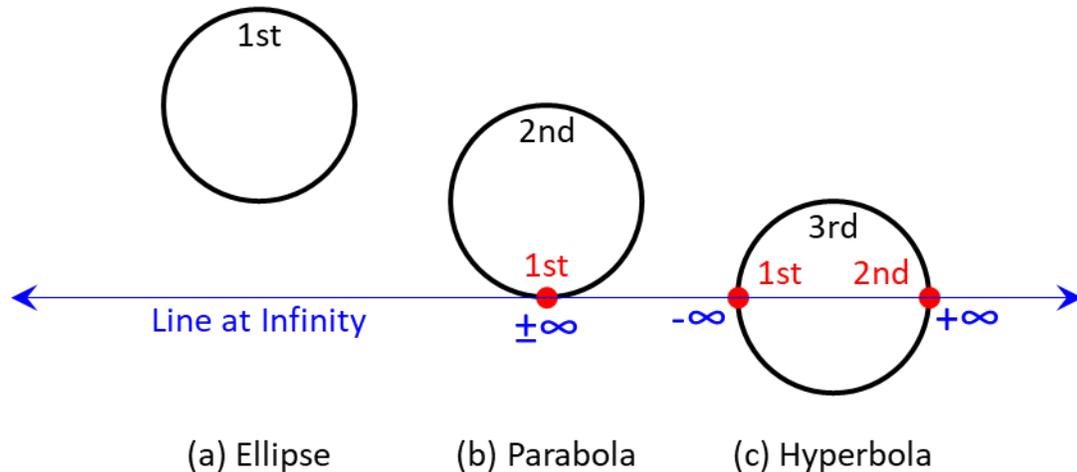


Figure 1. Conic Sections on the Projective Plane (Matsko 2017)

- 2.1.2 The 1st is that whose being is simply in itself, not referring to anything nor lying behind anything. The 2nd is that which is what it is by force of something to which it is 2nd. The 3rd is that which is what it is owing to things between which it mediates and which it brings into relation to each other. (CP 1.356, EP 1:248, 1887-8)
- 2.1.3 1st is the conception of being or existing independent of anything else. 2nd is the conception of being relative to, the conception of reaction with, something else. 3rd is the conception of mediation, whereby a 1st and 2nd are brought into relation. (CP 6.32, EP 1:296, 1891)
- 2.2 Any continuum of one dimension, such as time, must return into itself like a circle on the projective plane.⁹
- 2.2.1 What is here meant is that time has no instant from which there are more or less than two ways in which time is stretched out, whether they always be in their nature the foregoing and the coming after, or not. If that be so, since every portion of time is bounded by two instants, there must be a connection of time ring-wise. Events may be limited to a portion of this ring; but the time itself must extend round or else there will be a portion of time, say future time and also past time, not bounded by two instants. The justification of this view is that it extends the properties we see belong to time to the whole of time without arbitrary exceptions not warranted by experience. (CP 1.498, c. 1896)
- 2.2.2 Various continua, to which the inquirer's attention will be directed in the course of this investigation, must be assumed to be devoid of all topical singularities. ... But now, a continuum which is without singularities must, in the first place, return into itself. Here is a remarkable consequence. Take, for example, Time. It makes no

prescinded from (b) and (c), and (b) can be prescinded from (c), but (b) cannot be prescinded from (a), nor (c) from (b).

⁹ Peirce likely would have been skeptical of the "big bang" hypothesis, introduced and popularized decades after his death, because it posits an abrupt beginning of time as a singularity in the finite past, based on the unverifiable assumption that the laws and processes of nature as observed today have remained essentially unchanged since very soon after that alleged event. He maintains instead "that past time had no definite beginning" (CP 6.506, c. 1906), and that "the only possible way of accounting for the laws of nature ... is to suppose them results of evolution" (CP 6.13, EP 1:288, 1891).

difference what singularities you may see reason to impose upon this continuum. You may, for example, say that all evolution began at this instant, which you may call the infinite past, and comes to a close at that other instant, which you may call the infinite future. But all this is quite extrinsic to time itself. Let it be, if you please, that evolutionary time, our section of time, *is* contained between those limits.

Nevertheless, it cannot be denied that time itself, unless it be discontinuous, as we have every reason to suppose it is not, stretches on beyond those limits, infinite though they be, returns into itself, and begins again. Your metaphysics must be shaped to accord with that. (CP 6.210, 1898; see also CP 1.274-276, 1902)

- 2.3 Accordingly, there are three kinds of one-dimensional continua (Figure 2): an elliptic continuum is doubly degenerate (1ns of 3ns), a parabolic continuum is degenerate (2ns of 3ns), and a hyperbolic continuum is genuine (3ns of 3ns).¹⁰
- 2.3.1 Among 3rds, there are two degrees of degeneracy. The first [2ns of 3ns] is where there is in the fact itself no 3ns or mediation, but where there is true duality; the second degree [1ns of 3ns] is where there is not even true 2ns in the fact itself. (CP 1.366, EP 1:254, 1887-8)
- 2.3.2 Thus, 2ns is an essential part of 3ns though not of 1ns, and 1ns is an essential element of both 2ns and 3ns. Hence there is such a thing as the 1ns of 2ns and such a thing as the 1ns of 3ns; and there is such a thing as the 2ns of 3ns. (CP 1.530, 1903)
- 2.4 Moreover, there are three corresponding kinds of cosmologies (Figure 2): epicureanism, which is elliptic; pessimism, which is parabolic; and evolutionism or meliorism, which is hyperbolic.

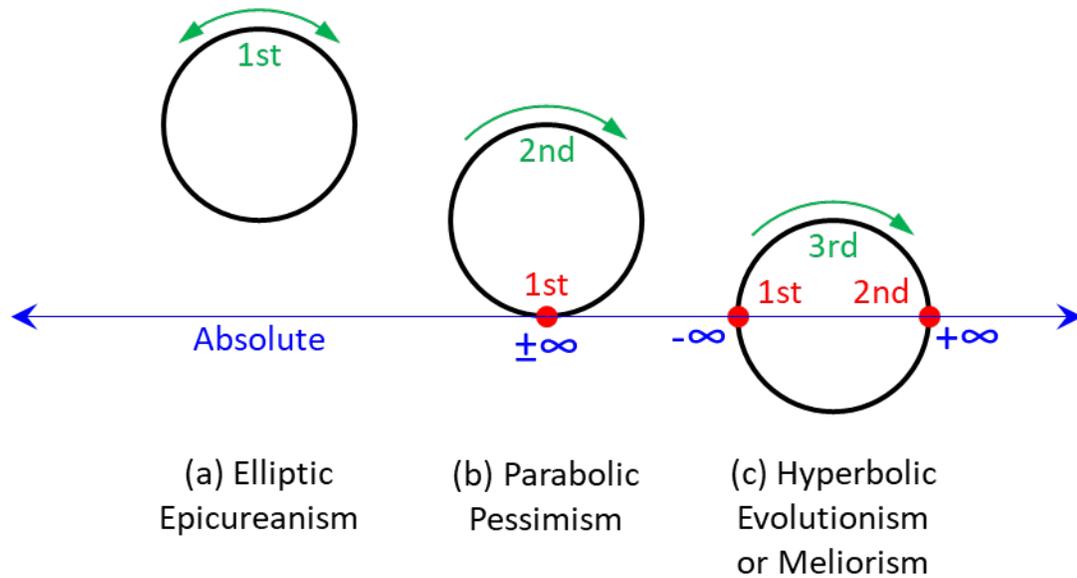


Figure 2. Three Kinds of Continua and Corresponding Cosmologies

¹⁰ For Peirce, "Continuity represents 3ns almost to perfection" (CP 1.337, c. 1882). He adapts the terminology of "genuine" and "degenerate" from conic sections in Euclidean geometry: a dimensionless point is a degenerate ellipse, a one-dimensional line is a degenerate parabola, and two lines that cross at a point—thus defining a two-dimensional plane—are a degenerate hyperbola. Note also that a point can be prescinded from a line or a plane, and a line can be prescinded from a plane, but not vice-versa.

- 2.4.1 If you think the measurable is all there is, and deny it any definite tendency whence or whither, then you are considering the pair of points that makes the absolute to be imaginary and are an Epicurean. If you hold that there is a definite drift to the course of nature as a whole, but yet believe its absolute end is nothing but the Nirvana from which it set out, you make the two points of the absolute to be coincident, and are a pessimist. But if your creed is that the whole universe is approaching in the infinitely distant future a state having a general character different from that toward which we look back in the infinitely distant past, you make the absolute to consist in two distinct real points and are an evolutionist. (CP 1.362, EP 1:251, 1887-8)¹¹
- 2.4.2 In regard to the principle of movement, three philosophies are possible. 1. Elliptic philosophy. Starting-point and stopping-point are not even ideal. Movement of nature recedes from no point, advances towards no point, has no definite tendency, but only flits from position to position. 2. Parabolic philosophy. Reason or nature develops itself according to one universal formula; but the point toward which that development tends is the very same nothingness from which it advances. 3. Hyperbolic philosophy. Reason marches from premisses to conclusion; nature has ideal end different from its origin. (CP 6.582, 1890)¹²
- 2.4.3 These three opinions about the universe, are then first, that of the pessimist, that the infinitely distant future comes to that same nothingness that was in the infinitely distant past; second, that of the Epicurean, that the universe has no general character or tendency whatever, and that nothing at all can be alleged of it as a whole; third, that of the Meliorist, that the universe has on the whole a definite tendency toward a state of things in the infinitely distant future different from that in the infinitely distant past. (R 953:5[4], c. 1897)¹³

3 Applied Mathematics

- 3.1 Time as the paradigmatic continuum is *hyperbolic* (Figure 2c)—mediating between the infinite past and the infinite future, which are different, in accordance with the categorial vector of *process* (Figure 3a): from 1ns through 3ns toward 2ns (Richmond 2005).¹⁴

¹¹ Peirce adds this in a footnote:

The last view [evolutionism] is essentially that of Christian theology, too. The theologians hold the physical universe to be finite, but considering that universe which they will admit to have existed from all time, it would appear to be in a different condition in the end from what it was in the beginning, the whole spiritual creation having been accomplished, and abiding. (CP 1.362n, EP 1:251n, 1887-8)

¹² Peirce goes on to suggest that elliptic philosophy (epicureanism) requires materialism because it "refuses to acknowledge the ideal," so it "cannot consistently regard mind as primordial, must rather take mind to be a specialization of matter"; and that parabolic philosophy (pessimism) views "this little life as rounded with sleep," "a fatal struggle, a mere death-throe" that "should extend throughout nature" (CP 6.583-584, 1890).

¹³ In this quotation, Peirce's designations of the first and second kinds of cosmologies are reversed from his categories. Robin (1967) does not assign a date to R 953, entitled "First and Second Conversazione," but c. 1897 is consistent with both physical and textual evidence (André De Tienne, e-mail correspondence, June 21, 2023).

¹⁴ The four vectors shown in Figure 3—along with two others, order (1ns→2ns→3ns) and aspiration (2ns→3ns→1ns)—are useful for describing phenomena from different analytical perspectives in accordance with Peirce's universal categories (Richmond 2005). As this paper demonstrates, the three concepts are not associated with 1ns, 2ns, and 3ns in isolation nor as rigid assignments, but based on a certain aspect of their relations with each other in a particular context.

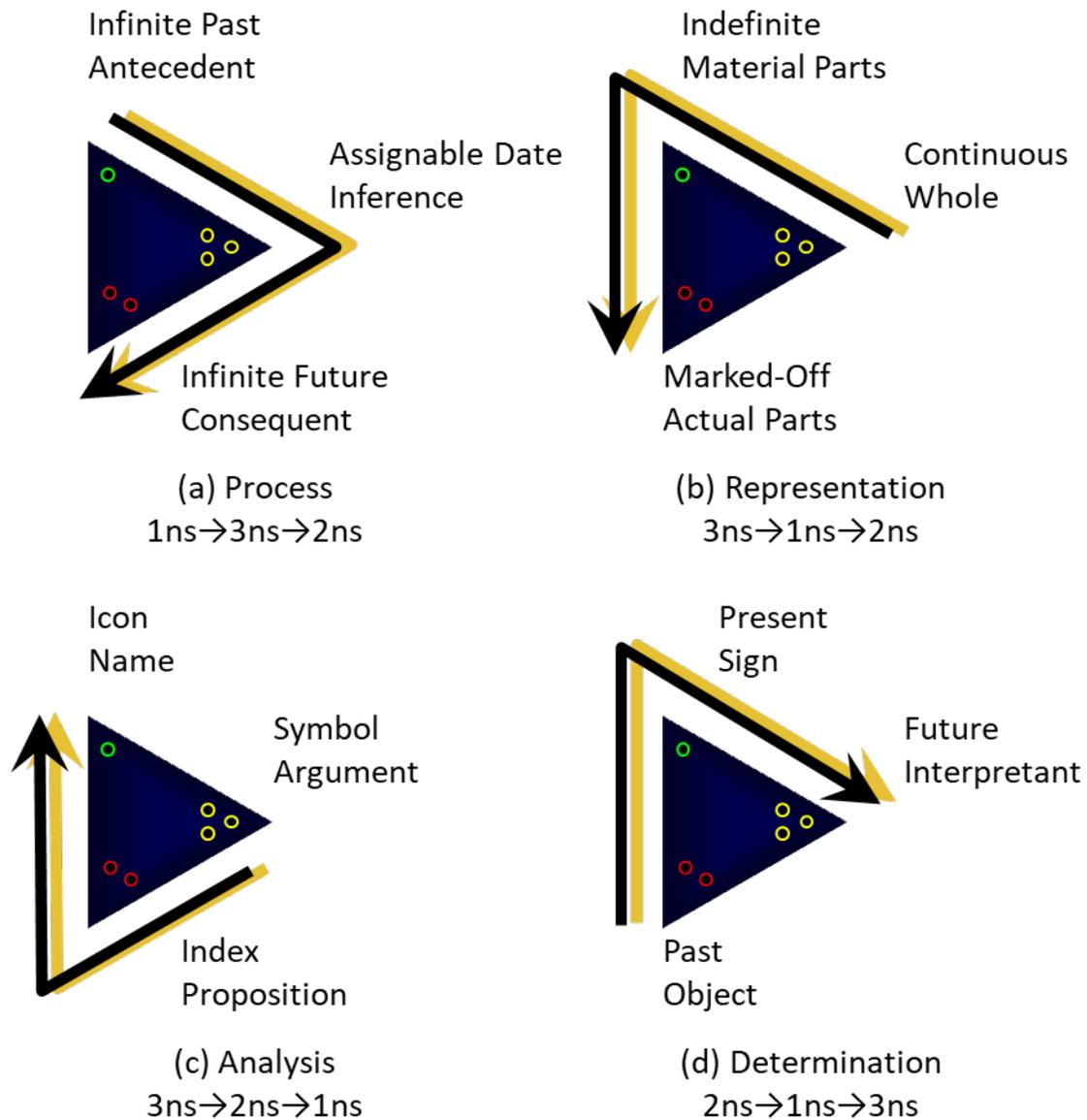


Figure 3. Categorical Vectors (Richmond 2005)

- 3.1.1 Observation leads us to suppose that changing things tend toward a state in the immeasurably distant future different from the state of things in the immeasurably distant past. ... It is an important, though extrinsic, property of time that no such reckoning brings us round to the same time again. (NEM 2:249-250, 1895)
- 3.1.2 [Time] is simply a unidimensional continuum of sorts of states of things and that these have an antitypy is shown by the fact that a sort of state of things and a different one cannot both be *at the same time*. And in consequence of this antitypy a state of things varies in one way and cannot turn round to vary the other way. Or to state it better a variation between state *A* and state *B* is limited to occurrence in one direction ... (NEM 2:611, 1908)
- 3.2 The inferential process of reasoning is also a hyperbolic continuum (Figures 2c and 3a)—mediating between the antecedent or premiss and the consequent or conclusion, which

are different: "temporal succession is a mirror of, or framework for, logical sequence" (CP 1.496, c. 1896).

- 3.2.1 The idea of time must be employed in arriving at the conception of logical consecution; but the idea once obtained, the time-element may be omitted, thus leaving the logical sequence free from time. That done, time appears as an existential analogue of the logical flow. (CP 1.491, c. 1896)
- 3.2.2 A sequence is a unidimensional form in which there is a difference between the relation of A to B and of B to A . Mathematically considered, in one dimension it is a progress from a point A to a point B , where A and B are different or A and B may coincide, or they may both vanish. Of these three forms of sequence, the first [hyperbolic] is distinctly that of logic since the ultimate antecedent and the ultimate consequent are different in logic. You cannot proceed from antecedent to consequent till you reach again your original antecedent (as in the third kind of sequence, the elliptical), nor do you *tend* to such a return (as in the second, or parabolic sequence), but the two are distinct. (NEM 4:127, 1897-8)¹⁵
- 3.2.3 Let me say, by the way, that there is in the logical law this difference between the absolutely first antecedent and the absolutely last consequent, both of which are unattainable limits. The last consequent is the very reality itself. That is our very conception of reality, the essence of the word, namely, what we should believe if investigation was carried to its furthest limit where no change of belief further was possible. ... But the absolutely first antecedent is simply the blank ignorance, the *zero* of knowledge. (NEM 4:134, 1897-8)
- 3.3 Accordingly, the universe conforms to the hyperbolic cosmology of evolutionism or meliorism (Figures 2c and 3a).
 - 3.3.1 We look back toward a point in the infinitely distant past when there was no law but mere indeterminacy; we look forward to a point in the infinitely distant future when there will be no indeterminacy or chance but a complete reign of law. But at any assignable date in the past, however early, there was already some tendency toward uniformity; and at any assignable date in the future there will be some slight aberrancy from law. (CP 1.409, EP 1:277, 1887-8)
 - 3.3.2 Philosophy tries to understand. In so doing, it is committed to the assumption that things are intelligible, that the process of nature and the process of reason are one. Its explanation must be derivation. Explanation, derivation, involve suggestion of a starting-point—starting-point in its own nature not requiring explanation nor admitting of derivation. Also, there is suggestion of goal or stopping-point, where the process of reason and nature is perfected. ... Starting-point and stopping-point can only be ideal, like the two points where the hyperbola leaves one asymptote and where it joins the other. (CP 6.581, 1890)
 - 3.3.3 I may mention that my chief avocation in the last 10 years has been to develop my cosmology. This theory is that the evolution of the world is *hyperbolic*, that is,

¹⁵ In this quotation, Peirce's designations of the first and third kinds of sequences are reversed from his categories.

- proceeds from one state of things in the infinite past, to a different state of things in the infinite future. (CP 8.317, 1891)¹⁶
- 3.4 Time as the paradigmatic continuum is *topical*—an undivided whole whose continuous portions (lapses) are indefinite material parts until deliberately marked off as actual parts with discrete limits (instants) as the immediate connections between them, in accordance with the categorial vector of *representation* (Figure 3b): from 3ns through 1ns toward 2ns (Richmond 2005).¹⁷
- 3.4.1 The first property of continuity is that everything continuous has parts. The parts of Time are called *times*. ... The second property of a continuum is that it can be made up ... of two continuous parts, having no such parts in common. A continuous time is called a *lapse* of time. ... The third property is that in order to make up a continuum, two continua must have something in common, but their common part need not be like them in complexity of its composition. By a *portion* ... is meant a part of like complexity of composition of its whole. A *limit* between two portions of a continuum having no common portion is the part of lower complexity of composition. ... The fourth property is that there is no multitude of limits which embraces all the possible limits in a continuum. (R 144:1-2, c. 1900)
- 3.4.2 In accordance with this it seems necessary to say that a continuum, where it is continuous and unbroken, contains no definite parts; that its parts are created in the act of defining them and the precise definition of them breaks the continuity. (CP 6.168, c. 1903-4)
- 3.4.3 I do not call a line, or a surface, or anything else, continuous unless every part of it that is homogeneous in dimensionality with the whole and is marked off in the simplest way is, in respect to the connexions of its parts, precisely like every other such part ... I conceive that a Continuum has, IN ITSELF, no definite parts, although to endow it with definite parts of no matter what multitude, and even parts of lesser dimensionality down to absolute simplicity, it is only necessary that these should be marked off, and although even the operation of thought suffices to impart an approach to definiteness of parts of any multitude we please. This indubitably proves that the possession of parts by a continuum is not a real character of it. For the real is that whose being one way or another does not depend upon how individual persons may imagine it to be. It shows, too, that Continuity is of a Rational nature. (LF 3/1:249, 1906; see also CP 7.535n6 and CP 4.642, 1908)
- 3.5 Perception is also a topical continuum (Figure 3b)—an undivided whole from which we prescind predicates, hypostasize some of them into subjects, and attribute others to those

¹⁶ At the end of the quoted paragraph, Peirce briefly addresses a question that naturally arises about the self-returning hyperbolic conception of time and cosmology as depicted in Figure 2c: "As to the part of time on the further side of eternity which leads back from the infinite future to the infinite past, it evidently proceeds by contraries." He explains elsewhere that if numbers were assigned to our side for measurement based on some unit interval, then each of their counterparts in "the vacant part of the circuit" would "be distinguished by having a quantity not a number added to it" (CP 7.291, c. 1895).

¹⁷ For an exposition of Peirce's mature topical conception of continuity, responding to Moore's assessment that it is merely "a more or less partially worked out guess" and not "a fully articulated and at least partially substantiated account" (2015:1057), see (Schmidt 2020a). Along with the additional examples presented below, this suggests renaming the relevant categorial vector as that of *continuity*.

subjects in propositions, namely, perceptual judgments: "the first premisses of all our reasonings" (CP 5.116, EP 2:191, 1903).¹⁸

- 3.5.1 The most ordinary fact of perception ... involves *precise* abstraction, or *prescission*. But *hypostatic* abstraction ... is a very special mode of thought. It consists in taking a feature of a percept or percepts (after it has already been prescinded from the other elements of the percept), so as to take propositional form in a judgment (indeed, it may operate upon any judgment whatsoever), and in conceiving this fact to consist in the relation between the subject of that judgment and another subject, which has a mode of being that merely consists in the truth of propositions of which the corresponding concrete term is the predicate. (CP 4.235, 1902)
- 3.5.2 The percept is, besides, whole and undivided. It has parts, in the sense that in thought it can be separated; but it does not represent itself to have parts. In its mode of being as a percept it is one single and undivided whole. (CP 7.625, 1903)
- 3.5.3 Experience is first forced upon us in the form of a flow of images. Thereupon thought makes certain assertions. It professes to pick the image into pieces and to detect in it certain characters. This is not literally true. The image has no parts, least of all predicates. Thus predication involves precise abstraction. Precise abstraction creates predicates. Subjectal [hypostatic] abstraction creates subjects. Both predicates and subjects are creations of thought. (NEM 3:917, 1904; see also CP 6.341, 1907)

4 Sign: The Universe

- 4.1 Since the constituent parts of the universe are intelligible—capable of being represented by predicates, subjects, and propositions, which are general signs or symbols—and whatever is intelligible is of the nature of a sign, the constituent parts of the universe must be of the nature of a sign.¹⁹
 - 4.1.1 The third element of the phenomenon is that we perceive it to be intelligible, that is, to be subject to law, or capable of being represented by a general sign or Symbol. But I say the same element is in all signs. The essential thing is that it is capable of being represented. Whatever is capable of being represented is itself of a representative nature. (CP 8.268, 1903)
 - 4.1.2 Thus, it is said to be a necessary result of the analysis that the object represented by the sign, and whose characters are independent of such representation, should itself be of the nature of a sign, so that its characters are not independent of *all* representation. (EP 2:328, 1904)
 - 4.1.3 [T]he explanation of the phenomenon lies in the fact that the entire universe,—not merely the universe of existents, but all that wider universe, embracing the universe

¹⁸ For a similar approach, but discussing the continuity of cognition rather than perception, see (Garzón-Rodríguez and Niño 2023).

¹⁹ For Peirce, although "*really being* and *being represented* are very different" (EP 2:303, NEM 4:239, 1901*), *really being* and *being representable*—and thus being of the nature of a sign—are the same: "The very entelechy of being lies in being representable. ... This appears mystical and mysterious simply because we insist on remaining blind to what is plain, that there can be no reality which has not the life of a symbol" (EP 2:324, NEM 4:262, 1901*). Such an ontological understanding is his alternative to Kant's incognizable "thing-in-itself" (see CP 6.95, 1903 and CP 5.553, EP 2:380, 1906), which Peirce dismisses as "meaningless surplusage" (CP 5.525, c. 1905).

* Peirce's manuscript entitled "*Kaina stoicheia*" or "New Elements" (R 517) is dated c. 1903 by Robin (1967) and 1904 by the Peirce Edition Project (EP 2:300), but external and internal evidence indicates that he more likely composed it in late 1901 (Bellucci et al. 2021:286n14).

- of existents as a part, the universe which we are all accustomed to refer to as "the truth,"—that all this universe is perfused with signs, if it is not composed exclusively of signs. (CP 5.448n, EP 2:394, 1906)
- 4.2 All signs must be connected to each other as determinations of a single quasi-mind, such that the entire universe is one immense sign.
- 4.2.1 There is a science of semeiotics whose results no more afford room for differences of opinion than do those of mathematics, and one of its theorems ... is that if any signs are connected, no matter how, the resulting system constitutes one sign ... and the entire body of all thought is a sign, supposing all thought to be more or less connected. (R 1476:36[5-1/2], 1904)
- 4.2.2 Consider then the aggregate formed by a sign and all the signs which its occurrence carries with it. This aggregate will itself be a sign; and we may call it a *perfect* sign, in the sense that it involves the present existence of no other sign except such as are ingredients of itself. ... Such perfect sign is a quasi-mind. ... This quasi-mind is an object which from whatever standpoint it be examined, must evidently have, like anything else, its special qualities [1ns] of susceptibility to determination. Moreover, the determinations come as events [2ns] each one once for all and never again. Furthermore, it must have its rules or laws [3ns], the more special ones variable, others invariable. (EP 2:545n25, LF 3/1:184-185, 1906)
- 4.2.3 For any set of Signs which are so connected that a complex of two of them can have one interpretant, must be Determinations of one Sign which is a *Quasi-mind*. ... Admitting that connected Signs must have a Quasi-mind, it may further be declared that there can be no isolated sign. (CP 4.550-551, 1906)
- 4.3 The universe is a symbol involving indices and icons, and an argument involving propositions and names, in accordance with the categorial vector of *analysis* (Figure 3c): from 3ns through 2ns toward 1ns; not static, but an ongoing inferential process, i.e., a semiotic topical continuum (Figure 3b)—an undivided whole whose connected constituent signs are indefinite until deliberately marked off.²⁰
- 4.3.1 Metaphysics consists in the results of the absolute acceptance of logical [i.e., semeiotic] principles not merely as regulatively valid, but as truths of being. Accordingly, it is to be assumed that the universe has an explanation, the function of which, like that of every logical explanation, is to unify its observed variety. It follows that the root of all being is One; and so far as different subjects have a common character they partake of an identical being. (CP 1.487, c. 1896)

²⁰ The upshot is that the entire universe as one immense sign is ontologically prior to its constituent signs (top-down), not an assemblage of the latter as its basic units in the reductionist sense (bottom-up). Since the demarcation of all those subsidiary signs is somewhat arbitrary, Peirce's multiple attempts after 1903 to develop more exhaustive taxonomies for minutely classifying them "detract from a more holistic and richer approach," and "the remedy is to re-emphasize the processual and functional view of semiosis" (Liszka 2019:157). For one thing, the well-known trichotomy of icon/index/symbol is a matter of degree, not a sharp division: a pure icon would not denote any object and a pure index would not signify any interpretant, making them *degenerate* signs (EP 2:306-307, NEM 4:242-243, 1901), while a symbol is a *genuine* sign that always has indexical and iconic parts or aspects (CP 2.295, EP 2:17, 1895). Moreover, rather than *comprising* arguments (Peirce also calls them *delomes*), propositions (*dicisigns* or *phemes*) represent the inferential process retrospectively (CP 2.27, 1902)—by describing facts prescinded from the "one *individual*, or completely determinate, state of things, namely, the all of reality" (CP 5.549, EP 2:378, 1906)—with names (*rhemes* or *semes*) serving as subjects and predicates.

- 4.3.2 [T]he Universe is a vast representamen, a great symbol of God's purpose, working out its conclusions in living realities. Now every symbol must have, organically attached to it, its Indices of Reactions and its Icons of Qualities; and such part as these reactions and these qualities play in an argument, that they of course play in the Universe, that Universe being precisely an argument. (CP 5.119, EP 2:193-194, 1903)
- 4.3.3 [A]n Argument is no more built up of Propositions than a motion is built up of positions. So to regard it is to neglect the very essence of it. ... Just as it is strictly correct to say that nobody is ever in an exact Position (except instantaneously, and an Instant is a fiction, or *ens rationis*), but Positions are either vaguely described states of motion of small range, or else (what is the better view), are *entia rationis* (i.e. fictions recognized to be fictions, and thus no longer fictions) invented for the purposes of closer descriptions of states of motion; so likewise, Thought (I am not talking Psychology, but Logic, or the essence of Semeiotics) cannot, from the nature of it, be at rest, or be anything but inferential process; and propositions are either roughly described states of Thought-motion, or are artificial creations intended to render the description of Thought-motion possible; and Names are creations of a second order serving to render the representation of propositions possible. (LF 3/1:234-235, 1906)
- 4.4 Accordingly, discrete things and their dyadic reactions are degenerate outcomes of continuous and triadic semiosis: "The one intelligible theory of the universe is that of objective idealism," but as a *process* ontology instead of a *substance* ontology in which "matter is effete mind" (CP 6.25, EP 1:293, 1891).²¹
- 4.4.1 A symbol is something which has the power of reproducing itself, and that essentially, since it is constituted a symbol only by the interpretation. This interpretation involves a power of the symbol to cause a real fact; and ... nothing can be more futile than to attempt to form a conception of the universe which shall overlook the power of representations to cause real facts. (EP 2:322, NEM 4:260, 1901)
- 4.4.2 When a sign determines an interpretation of itself in another sign, it produces an effect external to itself, a physical effect, though the sign producing the effect may itself be not an existent object but merely a type. It produces this effect, not in this or that metaphysical sense, but in an indisputable sense. (CP 8.191, c. 1904)²²

²¹ Peirce's *objective* idealism is different from Plato's *classical* idealism, Berkeley's *subjective* idealism, Kant's *transcendental* idealism, and Hegel's *absolute* idealism. He further describes it as "a Schelling-fashioned idealism which holds matter to be mere specialized and partially deadened mind" (CP 6.102, EP 1:312, 1892), such that "what we call matter is not completely dead, but is merely mind hidebound with habits" (CP 6.158, EP 1:331, 1892). However, he subsequently distinguishes synechism from idealism in general, calling the latter "the doctrine that ideas are everything" (CP 7.565, EP 2:1, 1893). Parker rightly understands Peirce to be an "extreme semiotic realist," not a "semiotic idealist" as suggested and defined previously by Savan (1983), but wrongly ascribes to him the opinion "that there are existent things, characterized predominantly by 2ns, independent of semiosis" (1998:219-222). The mistake here is treating the independence of such things from any actual cognition, which Peirce affirms, as entailing their independence from all semiosis whatsoever, which Peirce denies.

²² In his late writings on speculative grammar, Peirce defines a *type* as "a definitely significant Form" (3ns) and a *token* as an "event or thing being significant only as occurring just when and where it does" (2ns), adding that an *instance* of a type is a token that embodies it: "Thus, there may be twenty Instances of the Type 'the' on a page" (CP 4.537, 1906). These terms replace *legisign*, *sinsign*, and *replica*, respectively, as employed in earlier passages (e.g., CP 2.246, EP 2:291, 1903 and CP 8.334, 1904). Completing the trichotomy, a *tone* is an "indefinite significant

- 4.4.3 Any dynamic action—say, the attraction by one particle of another—is in itself *dyadic*. ... However, the dyadic action is not the whole action; and the whole action is, in a way, *triadic*. ... That whatever action is brute, unintelligent, and unconcerned with the result of it is purely dyadic is either demonstrable or is too evident to be demonstrable. But in case that dyadic action is merely a member of a triadic action, then so far from its furnishing the least shade of presumption that all the action in the physical universe is dyadic, on the contrary, the entire and triadic action justifies a guess that there may be other and more marked examples in the universe of the triadic pattern. (CP 6.330-332, 1907)
- 4.5 Every sign is related to its twofold object and its threefold interpretant in accordance with the categorial vector of *determination* (Figure 3d): from 2ns through 1ns toward 3ns (Richmond 2005).²³
- 4.5.1 As a *medium*, the Sign is essentially in a triadic relation, to its Object which determines it, and to its Interpretant which it determines. (EP 2:544n22, LF 3/1:97, 1906)
- 4.5.2 But it remains to point out that there are usually two Objects, and more than two Interpretants. (CP 4.536, 1906)²⁴
- 4.5.3 If there are three interpretants and only two objects,—the object and the interpretant being the two correlates of every sign,—the reason of this discrepancy can only lie in some difference between the relations of the Object and of the Interpretant,

character" (1ns), formerly a *qualisign*. Any habit or class is a general type, any event or thing is an individual token, and any character or quality is a possible tone.

²³ For a compilation and analysis of Peirce's many and various definitions of a sign, see (Marty 1997). The continuous flow of time also conforms to the categorial vector of determination, again reflecting the alignment of temporal and logical/semiotic sequence: "the accomplished past (2ns) determines the nascent present (1ns) to determine the contingent future (3ns)" (Schmidt 2022:259; see also CP 5.459, EP 2:357-358, 1905).

²⁴ One sign having two objects and three interpretants results from phaneroscopic analysis of their genuine triadic relation:

We must distinguish between the First, Second, and Third Correlate of any triadic relation. The First Correlate is that one of the three which is regarded as of the simplest nature ... The Third Correlate is that one of the three which is regarded as of the most complex nature ... The Second Correlate is that one of the three which is regarded as of middling complexity ... A *Representamen* [sign] is the First Correlate of a triadic relation, the Second Correlate being termed its *Object*, and the possible Third Correlate being termed its *Interpretant* ... (CP 2:235-242, EP 2:290, 1903)

Besides the sign itself (1ns of 1ns), the genuine correlates are the dynamical object (2ns of 2ns), "the Object as it is regardless of any particular aspect of it, the Object in such relations as unlimited and final study would show it to be"; and the final interpretant (3ns of 3ns), "that which *would* finally be decided to be the true interpretation if consideration of the matter were carried so far that an ultimate opinion were reached" (CP 8.183-184, EP 2:495-496 1909). The degenerate object is "the Immediate Object [1ns of 2ns], which is the Object as the Sign itself represents it"; the degenerate interpretant is "the Dynamical Interpretant [2ns of 3ns] which is the actual effect which the Sign, as a Sign, really determines"; and the doubly degenerate interpretant is "the Immediate Interpretant [1ns of 3ns], which is the interpretant as it is revealed in the right understanding of the Sign itself" (CP 4.536, 1906). The genuine interpretant is "final" primarily in the sense of a final cause, not the last step in a discrete series, such that Peirce also calls it the *normal* interpretant (e.g., CP 8.343-344, EP 2:482-483, 1908): as mentioned above in the preface, it is the standard to which dynamical interpretants of the sign *ought* to conform, which is what makes logic as semiotic a *normative* science.

respectively, to the Sign. The object is the antecedent, the interpretant the consequent of the sign. (R 318:162[18], 1907)

5 Object: God the Creator

- 5.1 Every sign is determined by an object that is external to it, independent of it, and unaffected by it, insofar as that object—its *dynamical* object—is likewise of the nature of a sign or thought.
 - 5.1.1 Every sign stands for an object independent of itself; but it can only be a sign of that object in so far as that object is itself of the nature of a sign or thought. For the sign does not affect the object but is affected by it; so that the object must be able to convey thought, that is, must be of the nature of a thought or of a sign. (CP 1.538, 1903)
 - 5.1.2 The object is something external to and independent of the sign which determines in the sign an element corresponding to itself; so that we have to distinguish the quasi-real object from the presented object; or some may say, the external from the internal object. And the external object as it is in itself is to be distinguished from the feature of the external object that is represented. (R 145:28, 1905)
 - 5.1.3 In its relation to the Object, the Sign is *passive*; that is to say, its correspondence to the Object is brought about by an effect upon the Sign, the Object remaining unaffected. (EP 2:544n22, LF 3/1:97, 1906)
- 5.2 Therefore, the universe as a sign must be determined by an object that is external to it, independent of it, and unaffected by it, insofar as that object is likewise of the nature of a sign or thought.
- 5.3 If God the Creator is real, then God is external to the universe, independent of it, unaffected by it, and—at least, in an analogous sense—likewise of the nature of a sign or thought.²⁵
 - 5.3.1 If a pragmaticist is asked what he means by the word "God," he can only say that ... if contemplation and study of the physico-psychical universe can imbue a man with principles of conduct analogous to the influence of a great man's works or conversation, then that analogue of a mind—for it is impossible to say that any human attribute is *literally* applicable—is what he means by "God." (CP 6.502, c. 1906)

²⁵ By his own testimony, when it comes to the nature of God and God's relation to the universe, Peirce's philosophy comports with theism and not pantheism nor panentheism as some scholars have argued. He professes plainly, "I look upon creation as going on and I believe that such vague idea as we can have of the power of creation is best identified with the idea of theism" (CP 8.138n4, 1905; see also CP 8.262, 1905), and at least two of his many contributions to *The Century Dictionary* (Ketner 2012:44-83) include relevant remarks. In his entry for "deism," Peirce contrasts it with "pantheism, which denies or ignores the personality of God," and "theism, which believes not only in a God, but in his living relations with his creatures" (Whitney 1889-91:1511); and he writes elsewhere that synecism "is forced to accept the doctrine of a personal God," such that "we must ... be in personal communication with him" (CP 6.162, EP 1:332-333, 1892). In his entry for "immanent," Peirce states, "The doctrine of an immanent deity does not necessarily imply that the world, or the soul of the world, is God, but only that it either is or is in God" (Whitney 1889-91:2996); so when he refers to "One Incomprehensible but Personal God, not immanent in but creating the universe" (CP 5.496, EP 2:421, 1907), and likewise emphatically denies that God is "immanent in Nature" or "immanent in the Universes" in four different drafts within one manuscript (R 843, 1908), he is explicitly ruling out both pantheism (the world is God) and panentheism (the world is in God). Of course, either of these alternatives would clearly preclude God from being external to the universe, independent of it, and unaffected by it.

- 5.3.2 By the proper name, God, I shall refer to that Being who possesses those Attributes which I take to be most essential to the traditional notion; that is to say, while His nature is incomprehensible, He doubtless has Attributes called by proper extension of the terms Omniscience, Omnipotence, and Infinite Benignity. This statement excludes a finite god ... But I had better add that I do *not* mean by God a being merely "immanent in Nature," but I mean that Being who has created every content of the world of ideal possibilities, of the world of physical facts, and the world of all minds, without any exception whatever. ... But I do not, by "God," mean, with some writers, a being so inscrutable that nothing at all can be known of Him. I suppose most of our knowledge of Him must be by similitudes. Thus, He is so much like a mind, and so little like a singular Existent (meaning by an Existent, or object that Exists, a thing subject to brute constraints, and reacting with all other Existents,) and so opposed in His Nature to an ideal possibility, that we may loosely say that He is a Spirit, or Mind. (R 843:25-27[3-5], 1908)²⁶
- 5.3.3 [A]ll Logic and all Reasoning goes on the assumption that the Universe, that each Universe, is governed by a Reason to which our own is akin. It only remains, therefore, to inquire whether that Universal Reason is or represents anything that can be properly likened to a Mind. For we must not predicate any Attribute of God otherwise than vaguely and figuratively, since God, though in a sense essentially intelligible, is nevertheless essentially incomprehensible. (SWS:283, 1909)
- 5.4 Therefore, if God the Creator is real, then the universe being determined by an object that is external to it, independent of it, and unaffected by it, insofar as that object is likewise of the nature of a sign or thought, would be a matter of course.²⁷

²⁶ This quotation is from an unpublished draft of "A Neglected Argument for the Reality of God" (CP 6.452-491, EP 2:434-450, 1908) and, in addition to endorsing many of the usual attributes of God, explains why Peirce affirms the *reality* of God, not the *existence* of God (see also CP 6.495, c. 1906). The published version begins with a much more concise identification of its subject: "The word 'God,' so 'capitalized' (as we Americans say), is *the* definable proper name, signifying *Ens necessarium*: in my belief Really creator of all three Universes of Experience." The latter together contain whatever might serve as dynamical objects of signs: "all mere Ideas," "the Brute Actuality of things and facts," and "everything whose Being consists in active power to establish connections between different objects" (CP 6.455, EP 2:435). When Peirce goes on to say later that "they, or at any rate two of the three, have a Creator independent of them" (CP 6.483, EP 2:448), he is again acknowledging the loose sense in which God as mind or spirit belongs to the third Universe, while nevertheless creating all else in it and the other two Universes in their entirety. They clearly align with his categories and "are distinguished by three Modalities of Being," such that he also calls their members "Possibles," "Existents," and "Necessitants" (EP 2:478-479, 1908).

²⁷ In an entry in his personal Logic Notebook, Peirce states a version of the principle of sufficient reason and then applies it to the three universes, resulting in a Leibnizian-style cosmological argument for the reality of God:

I show that logic requires us to postulate of any given phenomenon, that it is capable of rational explanation. Now, I say that the co-reality of the three universes 1st of Ideas, 2nd of Occurrences (existent things and actual events), 3rd of powers to bring two substances into relation to each other, (and I will call powers of this sort *Reasons*) must, accordingly, be supposed capable of rational explanation. ... Cosmology or the explanatory science of the Three Universes shows then plausibly at least how the Three Universes were produced, from an antecedent state. But their Phenomena are all the phenomena there are. The task of Cosmology is therefore to show how all phenomena were produced from a state of absolute absence of any; and logic requires that this problem [is] to be solved. But it must suppose something to be in that antecedent state, and this must be that which would Really be in any possible state of things whatever, that is, an *Ens*

- 5.5 Hence, there is reason to suspect that God the Creator is real as the dynamical object of the universe as a sign, especially as a semiotic continuum.²⁸
- 5.5.1 The general indefinite potentiality became limited and heterogeneous. Those who express the idea to themselves by saying that the Divine Creator determined so and so may be incautiously clothing the idea in a garb that is open to criticism, but it is, after all, substantially the only philosophical answer to the problem. (CP 6.199, 1898; see also CP 6.505-506, c. 1906)
- 5.5.2 To my humble intelligence, the Rationality of Continuity, the chief character of the foundation stones of the real universe, adds another to the hundred already interpretable revelations of our Super-august and Gracious Father. (LF 3/1:249n6, 1906)
- 5.5.3 From speculations on the homogeneities of each Universe, the Muser will naturally pass to the consideration of homogeneities and connections between two different Universes, or all three. Especially, in them all we find one type of occurrence, that of growth, itself consisting in the homogeneities of small parts. ... This is a specimen of certain lines of reflection which will inevitably suggest the hypothesis of God's Reality. ... But however that may be, in the Pure Play of Musement the idea of God's Reality will be sure sooner or later to be found an attractive fancy, which the Muser will develop in various ways. The more he ponders it, the more it will find response in every part of his mind, for its beauty, for its supplying an ideal of life, and for its thoroughly satisfactory explanation of his whole threefold environment. (CP 6.465, EP 2:439, 1908)²⁹

Necessarium. This Ens necessarium being, then, the Principle of all Phenomena, must be the author and creator of all that could ever be observed of Ideas, Occurrences, or *Logoi*. (R 339:[293r&295r], 1908)

In the state of things logically antecedent to the three universes, which was utterly devoid of any phenomena whatsoever, there must have been something else real that produced all observable phenomena (contingent being), namely, that which is real in every possible state of things (necessary being).

²⁸ This is not a necessary (deductive) conclusion, but a plausible (abductive) explanatory hypothesis. "The form of inference therefore is this: The surprising fact, *C*, is observed; but if *A* were true, *C* would be a matter of course. Hence, there is reason to suspect that *A* is true" (CP 5.189, EP 2:231, 1903). Nevertheless, rejecting it requires straightforwardly disagreeing with Peirce: either denying that the universe is a sign, denying that every sign has a dynamical object, or identifying a more plausible candidate for the dynamical object of the universe as a sign. His "Neglected Argument" is also abductive, and for a discussion of its underlying logic and cosmology, see (Schmidt 2018).

²⁹ In short, Peirce maintains that adequately contemplating the *continuity* of the three Universes—their "homogeneities and connections," all the way down to their "small parts"—inexorably leads to "desiring above all things to shape the whole conduct of life and all the springs of action into conformity with" the hypothesis that God is real, which "is neither more nor less than the state of mind called Believing that proposition, however long the conscious classification of it under that head be postponed" (CP 6.467, EP 2:440, 1908). He subsequently reiterates this conviction, also stipulating the requisite investment of time for engaging in such "Musement":

The most *powerful* of the proofs of His Being is that the sincere inquirer ... if he meditates well upon God's Reality considered as a mere hypothesis,—and until he has done this, he is unfit to judge of it,—will, as a fact, find himself utterly incapable of doubting it, which is more than a *Proof* of it to him;—it is a *Rational Compulsion*. Meantime, for all those who have not yet themselves received that illumination, testimony to that effect lies open;—testimony stupendous in volume ... Surely, this consideration ought to suffice to induce any[one] ... if he cares at all

6 Interpretant: God Completely Revealed

- 6.1 The entelechy of every sign is the absolute truth, the interpretant that it *would* determine under ideal circumstances, e.g., after infinite investigation by an infinite community—its *final* interpretant.
- 6.1.1 The purpose of every sign is to express "fact," and by being joined with other signs, to approach as nearly as possible to determining an interpretant which would be the *perfect Truth*, the absolute Truth, and as such (at least, we may use this language) would be the very Universe. Aristotle gropes for a conception of perfection, or *entelechy*, which he never succeeds in making clear. We may adopt the word to mean the very fact, that is, the ideal sign which should be quite perfect, and so identical,—in such identity as a sign may have,—with the very matter denoted united with the very form signified by it. The entelechy of the Universe of being, then, the Universe *qua* fact, will be that Universe in its aspect as a sign, the "Truth" of being. The "Truth," the fact that is not abstracted but complete, is the ultimate interpretant of every sign. (EP 2:304, NEM 4:239-240, 1901)
- 6.1.2 I call "truth" the predestinate opinion, by which I ought to have meant that which *would* ultimately prevail if investigation were carried sufficiently far in that particular direction. (EP 2:457, 1911)
- 6.2 If God the Creator is the dynamical object of the universe as a sign, then the latter is a semiotic hyperbolic continuum (Figures 2c, 3a, and 3d)—mediating between the former and God completely revealed as its final interpretant, i.e., God's purpose in the ongoing determination of the universe is increasingly definite self-disclosure.³⁰

whether God really be or not, to try, for himself, the effect of thorough consideration of the hypothesis, and to devote, say, six or seven per cent of his waking hours for six or seven years to a sincere trial of the experiment. For the exercise, will, in any case, be the most refreshing of pleasures. ... It may, therefore, truly be said that each of us believes in God, and that the only quest is how to believe less crudely,—a commonplace yet worth reminding ourselves of. (SWS:282-283, 1909)

³⁰ For a treatise on God as the transcendent creator from nothing of all that is determinate, the possibility of gaining knowledge of such God, and some associated religious implications, see (Neville 1968). Rather than *necessary* being, Neville identifies God with "being-itself," the indeterminate "one that unifies all the many determinations of being" (21); and although he asserts that "the interest in interpreting the created realm as a sign of God is to be pursued with all philosophic rigor" (169-170), he does not go on to comply with this directive himself. In fact, there are surprisingly few references to Peirce, including the misplaced criticism that "he does not attempt to account for the [ontological] unity of the three categories" (131). On the contrary, his synechism leads to conceiving the constitution of *contingent* being in accordance with the categorial vector of representation (Figure 3b)—a primordial continuum (3ns) of indefinite possibilities (1ns), some of which are actualized (2ns):

The whole universe of true and real possibilities forms a continuum, upon which this Universe of Actual Existence is, by virtue of the essential 2ns of Existence, a discontinuous mark—like a line figure drawn on the area of the blackboard. (NEM 4:345, 1898; see also CP 6.200-209, 1898)

In Neville's terms (126-127), Peirce's philosophy is thus cosmogonic as well as cosmological, consistent with his own characterization of it (CP 6.33, EP 1:297, 1891). For further discussion of the latter's blackboard diagram, see (Schmidt 2018:11-14).

- 6.2.1 The starting-point of the universe, God the Creator, is the Absolute 1st; the terminus of the universe, God completely revealed, is the Absolute 2nd; every state of the universe at a measurable point of time is the 3rd. (CP 1.362, EP 1:251, 1887-8)³¹
- 6.2.2 Reality, therefore, can only be regarded as the limit of the endless series of symbols. A symbol is essentially a purpose, that is to say, is a representation that seeks to make itself definite, or seeks to produce an interpretant more definite than itself. For its whole signification consists in its determining an interpretant; so that it is from its interpretant that it derives the actuality of its signification. (EP 2:323, NEM 4:261, 1901)
- 6.2.3 The hypothesis of God is a peculiar one, in that it supposes an infinitely incomprehensible object, although every hypothesis, as such, supposes its object to be truly conceived in the hypothesis. This leaves the hypothesis but one way of understanding itself; namely, as vague but as true so far as it is definite, and as continually tending to define itself more and more, and without limit. ... Thus, the hypothesis will lead to our thinking of features of each Universe as purposed; and this will stand or fall with the hypothesis. Yet a purpose essentially involves growth, and so cannot be attributed to God. Still it will, according to the hypothesis, be less false to speak so, than to represent God as purposeless. (CP 6.466, EP 2:439-440, 1908)
- 6.3 The growth associated with this purpose is not in God but in the universe, namely, the growth of concrete reasonableness: what esthetics identifies as the *summum bonum*, the only intrinsically admirable ideal.
- 6.3.1 [Meliorists] think that throughout the universe as a whole, the good has a decided tendency to prevail. If you ask what they mean by the good, they will tell you they mean the *ultimate end* of the universe. Accordingly, when they say the good tends to prevail, they mean there is a general tendency throughout the universe toward some describable condition of things. These thinkers consequently prescribe for us what they consider as an infallible recipe for being happy, if one only has the strength of mind to take the medicine, namely, to bring your desires into conformity with the general course of nature. (R 953:5[4], c. 1897; see also CP 5.133-135, EP 2:202, 1903)
- 6.3.2 The very being of the General, of Reason, *consists* in its governing individual events. So, then, the essence of Reason is such that its being never can have been completely

³¹ This quotation encapsulates the overall thesis of the present paper. As Peirce says in the previous sentence, "the conception of the absolute 1st eludes every attempt to grasp it; and so in another sense does that of the absolute 2nd; but there is no absolute 3rd ...". Knowledge of God the Creator is accessible to finite minds only to the extent that God determines the universe to provide it—a symbol that begins as absolutely indeterminate and never will be absolutely determinate:

If we are to explain the universe, we must assume that there was in the beginning a state of things in which there was nothing ... Not determinately nothing. ... Utter indetermination. But a symbol alone is indeterminate. Therefore, Nothing, the indeterminate of the absolute beginning, is a symbol. That is the way in which the beginning of things can alone be understood. ... Now it is of the essential nature of a symbol that it determines an interpretant, which is itself a symbol. A symbol, therefore, produces an endless series of interpretants. (EP 2:322-323, NEM 4:260-261, 1901)

Accordingly, "Philosophy is an enterprise of wayfarers. It is not just faith nor yet understanding. Faith is not yet philosophy, understanding is no longer philosophy. Philosophy is the SEEKING" (Mackey 1973:263).

- perfected. It always must be in a state of incipency, of growth. ... This development of Reason consists, you will observe, in embodiment, that is, in manifestation. The creation of the universe, which did not take place during a certain busy week, in the year 4004 B.C., but is going on today and never will be done, is this very development of Reason. I do not see how one can have a more satisfying ideal of the admirable than the development of Reason so understood. The one thing whose admirableness is not due to an ulterior Reason is Reason itself comprehended in all its fullness, so far as we can comprehend it. (CP 1.615, EP 2:255, 1903)
- 6.3.3 Accordingly, the pragmaticist does not make the *summum bonum* to consist in action, but makes it to consist in that process of evolution whereby the existent comes more and more to embody those generals which were just now said to be *destined*, which is what we strive to express in calling them *reasonable*. (CP 5.433, EP 2:343, 1905)
- 6.4 The corresponding ethical imperative is to engage with others in sincere inquiry using methods that foster shared knowledge of the universe as a semiotic continuum and of God the Creator as its dynamical object, and to cultivate habits of conduct accordingly.
- 6.4.1 The Meliorist view is that there are in the first place certain real facts, which are as they are quite independently of what you or I or any man may think about them. Secondly, truth, being the agreement of our assertions with those facts, is something definitely one way, and not otherwise. Thirdly, observation and reflection, stimulated by an eager desire to ascertain that truth, gradually lead minds toward it, so that, though ignorance and error always remain in reference to each question, yet they become gradually dispelled. (R 953:7-8[6-7], c. 1897).
- 6.4.2 Such is the place of logic among the sciences; and such is its utility. Yet the reader will find that the aggregate value of all such applications will not compare with the treasure of the pure theory itself. For when he has surveyed the whole subject, he will see that the theory of logic, in so far as we attain to it, is the vision and the attainment of that Reasonableness for the sake of which the Heavens and the Earth have been created. (CP 2.122, 1902; see also CP 5.3, 1902)
- 6.4.3 Under this conception, the ideal of conduct will be to execute our little function in the operation of the creation by giving a hand toward rendering the world more reasonable whenever, as the slang is, it is "up to us" to do so. In logic, it will be observed that knowledge is reasonableness; and the ideal of reasoning will be to follow such methods as must develop knowledge the most speedily. (CP 1.615, EP 2:255, 1903)

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