

Peirce's Omega Point Theory

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1. Introduction

An Omega Point Theory says that reality is making progress from some initial state to some final state. It moves from some Alpha Point (the initial state) to some Omega Point (the final state). The progress is an increase in some quality. For example, reality is making progress from the chaotic to the orderly; or it is making progress from the simple to the complex; or from the mindless to the mental; or from evil to good. Here we focus on the Omega Point theory of Peirce. An Omega Point Theory is an evolutionary cosmology – it says that the universe is evolving from the Alpha Point to the Omega Point. Peirce refers to his evolutionary cosmology as a *Cosmogonic Philosophy*

would suppose that in the beginning – infinitely remote – there was a chaos of unpersonalized feeling, which being without connection or regularity would properly be without existence. This feeling, sporting here and there in pure arbitrariness, would have started the germ of a generalizing tendency. Its other sportings would be evanescent, but this would have a growing virtue. Thus the tendency to habit would be started; and from this, with the other principles of evolution, all the regularities of the universe would be evolved. At any time, however, an element of pure chance survives and will remain until the world becomes an absolutely perfect, rational, and symmetrical system, in which mind is at last crystallized in the infinitely distant future. (Peirce, *Collected Papers*, 6.33).

2. The Original Chaotic Nothingness

According to Peirce, a metaphysical theory has to explain why there is something rather than nothing. It has to explain the existence of our universe. A metaphysical theory has to posit “a state of things in which that universe did not exist, and consider how it could have arisen.”(6.214). The initial state is the Alpha Point.

On the one hand, Peirce says that any ultimate explanation (any metaphysical explanation) has to start from metaphysical nothingness. The Alpha Point is therefore pure non-being “If we are to proceed in a logical and scientific manner, we must, in order to account for the whole universe, suppose an initial condition in which the whole universe was non-existent, and therefore a state of absolute nothing.” (6.215) He says: “The initial condition, before the universe existed, was . . . a state of just nothing at all, not even a state of emptiness, for even emptiness is something.” (6.215).

On the other hand, Peirce describes the Alpha Point as sheer chaos: “The state of things in the infinite past is chaos, *tohu bohu*, the nothingness of which consists in the total

absence of regularity”(8.317). He says that in the beginning “there was a chaos of unpersonalized feeling, which being without connection or regularity would properly be without existence” (6.33). There is no law at the Alpha Point: “We look back toward a point in the infinitely distant past when there was no law but mere indeterminacy” (1.409). Finally, he says “Reality, then is persistence, is regularity. In the original chaos, where there was no regularity, there was no existence” (1.175).

Of course, a chaos of unpersonalized feeling is not a state of absolute nothing. An original chaos is something. An explanation of why there is something rather than nothing cannot start with something. Since Peirce wants to provide an explanation of why there is something rather than nothing, he cannot start with Chaos and Old Night. He needs to start with an original condition in which even the chaos does not exist. He needs to start with an aboriginal and chthonic non-being. The origin is nihil, nix, nada.

3. The Self-Negation of the Original Nothingness

Peirce says the original nothingness is indeterminate possibility: “it is absolutely undefined and unlimited possibility – boundless possibility. There is no compulsion and no law. It is boundless freedom. So of *potential* being there was in that initial state no lack” (6.217). We agree that the original non-being is pure potentiality for being. The original nothingness is not idle potentiality. It is “the germinal nothing, in which the whole universe is involved or foreshadowed” (6.217). We agree that potentiality is powerful.

The original nothingness operates according to the logic of freedom. According to this logic, the original nothingness turns its negative power back onto itself and annuls itself. Peirce says: “The logic of freedom, or potentiality, is that it shall annul itself. For if it does not annul itself, it remains a completely idle and do-nothing potentiality; and a completely idle potentiality is annulled by its complete idleness.”(6.219) One might say (with Heidegger) that the nothing negates itself. The original nothingness negates its own negativity. We agree with Peirce that pure self-negation negates itself. The best explanation for why there is something rather than nothing is that nothing negates itself.

The self-negation of nothingness converts indeterminate possibility into determinate possibility. Peirce says that “unbounded potentiality became potentiality of this or that sort “ (6.220). For Peirce, a determinate possibility is some quality: “Thus the zero of bare possibility, by evolutionary logic, leapt into the unit of some quality” (6.220). For instance, redness is a quality. Peirce uses redness to illustrate the conversion of an indeterminate possibility (something is possible) into a determinate possibility: “Something is possible; Red is something; therefore, Red is possible” (6.220).

Since we do not subscribe to Peirce’s idealism, we do not believe that sensory qualities emerge from original nothingness. Peirce argues that a world of Platonic forms emerges from the original state (6.189 – 6.213). We might replace the notion of a sensory quality with the more general notion of a property: Something is possible; property P is

something; therefore, P is possible. We affirm that the self-negation of nothingness generates a system of properties. But what are these properties? One view of properties says that a property P is identical with the collection or set of things that have P. The set of things that have P is the extension of P. Although this view is not without problems, it seems better than its competitors. We therefore identify properties with their extensions.

According to our refinement of Peirce's evolutionary cosmology, the self-negation of non-being generates a system of properties. Every property is an extension. One might object that if all we have is extensions, then we don't have any things to put in extensions. So all properties are identical. They are all empty extensions. We reply that we have plenty of objects to put in the extensions of properties. The extensions of properties include other properties. For this approach to work, we need to order the emergence of properties. The order is logical. We start with a property P_0 . Since there is nothing to put into its extension, P_0 is indeed empty. It is the empty set $\{\}$. Since P_0 exists, there can be a property P_1 whose extension includes just P_0 . Thus P_1 is $\{P_0\}$. We now have the two objects P_0 and P_1 . We can thus form four extensions over them. And so it goes.

We think the best way to make sense of Peirce's evolutionary cosmology is to affirm that (1) The original state is pure non-being. (2) The self-negation of non-being produces the maximal system of properties. (3) Every property is the set of all things that have that property. And (4) properties have only other properties in their extensions. We thus obtain the iterative hierarchy of pure sets. The conversion of indeterminate possibility into determinate possibility is the emergence of the iterative hierarchy of pure sets. Boundless freedom necessarily entails the existence of that hierarchy of pure sets than which no greater is logically possible. Of course, Peirce himself didn't know anything about the iterative hierarchy of pure sets. We are interpreting Peirce.

4. The Growing Tendency

The initial chaos is plentiful. It is a state of total freedom of possibility. Every possibility is thus included. It contains a little of everything: "In that state of absolute nility, in or out of time, that is, before or after the evolution of time, there must then have been a *tohu bohu* of which nothing whatever affirmative or negative was true universally. There must have been, therefore, a little of everything conceivable." (6.490).

Since the initial chaos contains a little of everything, it contains a little tendency to become regular. It has a little tendency to take habits. A habit is a tendency to repeat; it is tendency to behave in an orderly way. That is "There must have been here and there a little undifferentiated tendency to take [habits]." (6.490)

Any tendency to form habits is itself habit-forming. The tendency to take habits is self-reinforcing: "But such a state must tend to increase itself. For a tendency to act in any way, combined with a tendency to take habits, must increase the tendency to act in that

way. Now substitute in this general statement for ‘tendency to act in any way’ a tendency to take habits, and we see that that tendency would grow.”(6.490)

The growth of regularity is self-strengthening. It is a positive feedback loop: “The tendency to form habits or tendency to generalize, is something which grows by its own action, by the habit of taking habits itself growing.” (8.317)

The emergence of habits means that nature tends to follow patterns. It is the emergence of laws: “Uniformities in the modes of action of things have come about by their taking habits. At present, the course of events is approximately determined by law. In the past that approximation was less perfect; in the future it will be more perfect. The tendency to obey laws has always been and always will be growing.” (1.409)

5. The Emergence of Time & Space

There is no time in the original chaos: “Not only substances, but events, too, are constituted by regularities. The flow of time, for example, in itself is a regularity. The original chaos, therefore, where there was no regularity, was in effect a state of mere indeterminacy, in which nothing existed or happened.”(1.411)

The primitive system of habits contains an objective logical sequence prior to time. The idea is that time emerges within this objective logical sequence: “Time is itself an organized something, having its law or regularity ; so that time itself is a part of the universe whose origin is to be considered. We have therefore to suppose a state of things before time was organized. Accordingly when we speak of the universe as ‘arising’ we do not mean that literally. We mean to speak of some kind of sequence, say an objective logical sequence; but we do not mean in speaking of the first stages of creation before time was organized, to use ‘before,’ after,’ arising,’ and such words in the temporal sense.” (6.214)

The self-reinforcing nature of habit produces a partially regular series of partially similar events. It produces time: “time may have evolved by the action of habit. . . . Time consists in a regularity in the relations of interacting feelings. The first chaos consisted in an infinite multitude of unrelated feelings. . . . In this chaos of feelings, bits of similitude had appeared, had been swallowed up again. Had reappeared by chance. A slight tendency to generalization had here and there lighted up and been quenched. Had reappeared, had strengthened itself. Like had begun to produce like. Then even pairs of unlike feelings had begun to have similars, and then these had begun to generalize. And thus relations of contiguity, that is connections other than similarities, had sprung up. All this went on . . . till the feelings were so bound together that a passable approximation to a real time was established.”(8.318)

The emergence of time “Out of the womb of indeterminacy we must say that there would have come something, by the principle of Firstness, which we may call a flash. Then by

the principle of habit there would have been a second flash. Thought time would not yet have been, this second flash was in some sense after the first, because resulting from it. Then there would have come other successions ever more and more closely connected, the habits and the tendency to take them ever strengthening themselves, until the events would have been bound together into something like a continuous flow. We have no reason to think that even now time is quite perfectly continuous and uniform in its flow.”(1.412)

Just as time emerges from the generalizing tendency of habits, so also all spatial structure emerges from this generalizing tendency. (1.413 – 1.416)

6. The Appearance of the Laws of Nature

Why is there any regularity in nature? Why are there laws of nature? Peirce says that the best explanation is evolutionary. Just as the structures of organisms have evolved, so also the structure of physical reality has itself evolved. The laws of nature emerged from an evolutionary process: “Now the only possible way of accounting for the laws of nature and for uniformity in general is to suppose them results of evolution. This supposes them not to be absolute, not to be obeyed precisely. It makes an element of indeterminacy, spontaneity, or absolute chance in nature.”(6.13)

The laws of nature were produced by an evolutionary process; it is a growing tendency. The evolutionary process is self-starting, self-sustaining, and self-strengthening. It is a positive feedback loop. (7.513 – 7.515)

6. The Appearance of Parallel Universes

The temporal flow of events may branch into many distinct streams. These distinct streams are distinct universe-processes. They are distinct regions of cosmic activity – distinct parallel universes. Peirce writes: “The quasi-flow which would result would, however, differ essentially from time in this respect, that it would not necessarily be in a single stream. Different flashes might start different streams, between which there should be no relations of contemporaneity or succession. So one stream might branch into two, or two might coalesce. But the further result of habit would inevitably be to separate utterly those that were long separated, and to make those which presented frequent common points coalesce into perfect union. Those that were completely separated would be so many different worlds which would know nothing of one another; so that the effect would be just what we actually observe.”(1.412)

Note that different time-streams will have different spaces and different natural laws. Hence they will be distinct parallel universes. The total system of physical reality is a branching tree of time-streams.

7. The Omega Point

The Omega Point is a state in the infinitely far future: “the world becomes an absolutely perfect, rational, and symmetrical system, in which mind is at last crystallized in the infinitely distant future” (6.33). There is no chance at the Omega Point: “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.” (1.409) So the Omega Point is death: “The state of things in the infinite future is death, the nothingness which consists in the complete triumph of law and the absence of all spontaneity.” (8.317) Since this is maximally ordered, and order is existence, this Omega Point is most real and most fully existent.