

Philosophy, Theology and the Sciences

Volume 3

No. 1

2016

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Mohr Siebeck

John R. Shook

Panentheism and Peirce's God

Theology Guided by Philosophy and Cosmology

As Charles Peirce developed his pragmatic methodology and metaphysical cosmology, he also explored philosophical views about religion and God. Religion and science could be reconciled, he judged, if inquiries into God applied his scientific philosophy. Peirce died before clarifying what a Peircean God is like, but cooperation between theology, philosophy, and cosmology should pursue this effort. Core components of Peirce's system are used to formulate theistic, pantheistic, and panentheistic candidates for a Peircean God. These candidates are evaluated by the demands of his philosophical system, and then compared against contemporary science's understanding of the universe. Panentheism best fulfills Peircean expectations that God has complete creative and design control over the universe's entire development.

1. Introduction

Charles Peirce judged that his philosophy could reconcile religion and science, and his reconciliation included a scientific inquiry into God¹. After two decades of intense speculation on metaphysics and cosmology, he published *A Neglected Argument for the Reality of God* in 1908. Only this essay and some further cosmological speculations vaguely suggest what Peirce's God must be like. Tenets from other parts of his philosophy, from logic and phenomenology to metaphysics and semiotics, must be consulted. This essay first describes Peirce's hopes for discerning God in the universe's evolution, and lists all of the attributes that Peirce explicitly assigned to God. Next, core features of Peirce's system are applied to formulate four primary types of pantheistic and panentheistic candidates for God. After these philosophical criteria are applied, these candidate Gods must also be able to effectively control the universe as cosmology can comprehend it. A dynamically

1 Most of Peirce's writings relevant to religion were published in Vol. 1 and 6 of *The Collected Papers of Charles Sanders Peirce* (Peirce 1931–58). Citations to this edition are given by CP followed by volume and paragraph numbers.

panentheistic God can best fulfill Peirce's expectations for the most extensive divine creativity possible and the most divine control over the universe's entire development.

2. The Three Peircean Categories

Peirce's *Neglected Argument* for God's reality is the place to begin on this subject. Detailed analyses of this 'neglected argument' are available² so we can proceed efficiently towards the cosmological and metaphysical issues surrounding God. Peirce writes, "a latent tendency toward belief in God is a fundamental ingredient of the soul, and that, far from being a vicious or superstitious ingredient, it is simply a natural precipitate of meditation upon the origin of the Three Universes" (CP 6.487). Following the *Neglected Argument*, one is led to appreciate how a deeper dynamic pattern runs through all three fundamental categories of firstness, secondness, and thirdness.

Peirce describes the three universes of firstness, secondness, and thirdness in this way:

Of the three Universes of Experience familiar to us all, the first comprises all mere Ideas, those airy nothings to which the mind of poet, pure mathematician, or another *might* give local habitation and a name within that mind. Their very airy-nothingness, the fact that their Being consists in mere capability of getting thought, not in anybody's Actually thinking them, saves their Reality. The second Universe is that of the Brute Actuality of things and facts. I am confident that their Being consists in reactions against Brute forces, notwithstanding objections redoubtable until they are closely and fairly examined. The third Universe comprises everything whose being consists in active power to establish connections between different objects, especially between objects in different Universes (CP 6.455).

Peirce finds firstness, secondness, and thirdness in phenomenological experience, the categories prepared from his logical and mathematical studies. Expressed as relations, these three categories are defined as follows:

Careful analysis shows that to the three grades of valency of indecomposable concepts correspond three classes of characters or predicates. Firstly come 'firstnesses,' or positive internal characters of the subject in itself; secondly come 'secondnesses,' or brute actions of one subject or substance on another, regardless of law or of any third subject; thirdly come 'thirdnesses,' or the mental or quasi-mental influence of one subject on another relatively to a third (CP 5.469).

2 In chronological order, these discussions of the *Neglected Argument* are highly useful: Smith 1952; Pfeifer 1981; Orange 1984; Raposa 1989; Corrington 1993, 167–217; Anderson 1995, 135–86; Potter 1996b; Ejsing 2006.

Since thirdness plays the crucial role for Peirce's conceptions of God, one more description of the three categories expanding on thirdness is useful:

We have here a first, a second, and a third. The first is a positive qualitative possibility, in itself nothing more. The second is an existent thing without any mode of being less than existence, but determined by that first. A *third* has a mode of being which consists in the Secondnesses that it determines, the mode of being of a law, or concept. Do not confound this with the ideal being of a quality in itself. A quality is something capable of being completely embodied. A law never can be embodied in its character as a law except by determining a habit. A quality is how something may or might have been. A law is how an endless future must continue to be.

Now in genuine Thirdness, the first, the second, and the third are all three of the nature of thirds, or thought, while in respect to one another they are first, second, and third. ... The third is thought in its role as governing Secondness. It brings the information to the mind, or determines the idea and gives it body. It is informing thought, or *cognition*. But take away the psychological or accidental human element, and in this genuine Thirdness we see the operation of a sign (CP 1.536–37).

In several places across his voluminous writings, including the *Neglected Argument*, Peirce attempts to demonstrate how thirdness is responsible for crucial natural processes, especially the habits of nature and the special work of semiosis, the activity of signs. Thirdness is essential to Peirce's philosophical and metaphysical theorizing, and we shall see why thirdness is probably the decisive factor for determining what Peirce's system can indicate about God.

Peirce's cosmological speculations during the 1880s and 1890s relate a speculative narrative of nature evolving from sheer chance through interlocking reactions and on to the emergence of growing and evolving habits. These speculations, especially concerning the 'Evolutionary Love' postulated by "an evolutionary philosophy, which teaches that growth comes only from love" (CP 6.289), led Peirce towards thoughts of God. The *Neglected Argument* asks the 'Muser,' after contemplating the three universes and their connections, to take a closer look at the special phenomenon of growth:

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 evident in the growth of motion into displacement, and the growth of force into motion. In growth, too, we find that the three Universes conspire; and a universal feature of it is provision for later stages in earlier ones. This is a specimen of certain lines of reflection which will inevitably suggest the hypothesis of God's Reality (CP 6.465).

Peirce had linked growth to mind, and linked universal mind to God, in his 1892 article *The Law of Mind*:

This reference to the future is an essential element of personality. Were the ends of a person already explicit, there would be no room for development, for growth, for life; and consequently there would be no personality. The mere carrying out of predetermined purposes is mechanical. This remark has an application to the philosophy of religion. It is that a genuine evolutionary philosophy, that is, one that makes the principle of growth a primordial element of the universe, is so far from being antagonistic to the idea of a personal creator, that it is really inseparable from that idea; while a necessitarian religion is in an altogether false position and is destined to become disintegrated. But a pseudo-evolutionism which enthrones mechanical law above the principle of growth, is at once scientifically unsatisfactory, as giving no possible hint of how the universe has come about, and hostile to all hopes of personal relations to God (CP 6.157).

Peirce regarded the universal phenomena of evolutionary growth as the key to unlocking both the nature of God's reality and the intimate relations we may have with the divine. What sort of God is implicated by this evolutionary and cosmological philosophy?

Locating Peirce's God won't be fully accomplished through just one aspect or another of Peirce's vast philosophical system. His discernment of categories through phaneroscopy, his phenomenological insights, his pragmatic abductions, his panpsychist tendencies, and his semiotic theorizing can be illuminatingly compared or experimentally synthesized with the gods of faith traditions³. However, our inquiry here applies only Peirce's system to see which God hypotheses can do the most for expanding humanity's comprehension of everything intelligence can explore. This Peircean inquiry must ask how God works with science as well as metaphysics and other philosophical inquiries, since Peirce expected scientific philosophy, in the broadest sense, to be the surest way to increase comprehension. Peirce is not doing natural theology, following up on just what the natural sciences discover. That is why Peirce could speak of the "religion of science" (CP 6.433) – an informed religiosity which would flow from inquiry undertaken in the broadest sense. Experimental science, even in some hypothetically completed sense, cannot yield a religion even if all facts were catalogued – religiosity itself is intuitive and instinctive (CP 6.493). There remains a more general inquiry into the comprehensible development of everything, which

3 Peirce's three phenomenal categories suggest the Christian trinity; Deuser even tries to discern German Lutheran Trinitarianism in Peirce (Deuser 1993). On Peirce and phenomenologies about direct religious experience, consult Niemoczynski (2011). Peirce himself repeatedly resisted William James's harnessing of pragmatism to personally salvific over-beliefs (see Anderson 2012, 149–65). Peirce was enlisted as a fellow panpsychist by Hartshorne (1984, 9, 259). Applying Peircean semiotics to Jewish scripture is explored by Ochs (2005). Selectively reading Peirce for defending traditional Christian theism is the project of Slater (2014, 80–107).

can wisely guide the religion steadfastly oriented towards God. What is this religion? Peirce says,

it is a religion, so true to itself, that it becomes animated by the scientific spirit, confident that all the conquests of science will be triumphs of its own, and accepting all the results of science, as scientific men themselves accept them, as steps toward the truth (CP 6.433).

Peirce did require that any religion of science, for all its philosophical and theological sophistications, not only cohere with cosmology, but rely on all of the best cosmological knowledge available. No argumentation for God could ever be finished and final for Peirce, as fallible inquiry is endless, science grows continually, and cosmology keeps surprising us. His admiration for science hardly meant any denigration of religion (Parker 1990; Cantens 2006; Sims 2008), yet he was intent upon their cohesion. Peirce decided against placing religion in the hands of either metaphysics or cosmology separately, and he distrusted theology's manner of picking through their theories to select out just the right support for religious dogmas. Where does all available evidence of God reasonably point?

3. Candidates for Peirce's God

Peirce can be selectively read to sound somewhat like a classical theist or even a deist. Peirce does not acknowledge the theology of pantheism in his writings. He clearly did not approve of pantheism or polytheism (CP 8.262; see also Alexander 1987; Raposa 1989, 50). Nevertheless, these theological options may all be provisionally considered, as we start from the firmest expectations that Peirce had for God.

Peirce formulated a few propositions about God that his philosophy could, in his own view, reasonably support. He retained some traditional theological ideas about God, but his own philosophy forced him towards novel views as well, and perhaps led him into a few contradictions (Hartshorne 1941a, 1941b, 1995). Peirce's traditional ideas include God's attributes of infinity, necessity, creativity, eternality, and mentality. For Peirce, God must be infinite (CP 8.262) and must be that "necessary being" which is the "creator of all three Universes of Experience" (CP 6.452), and he additionally claimed that "*all reality* is due to the creative power of God" (CP 6.505). God has "its being out of time" and God creates time (CP 6.490; CP 4.67). Peirce described God as a "disembodied spirit, or pure mind" (CP 6.490) and God "probably has no consciousness" (CP 6.489). Peirce attributes to

God more perfections, such as omnipotence (CP 6.509) and omniscience (CP 6.508, CP 6.510).

Peirce also assigned attributes to God which can be considered incompatible with static perfection. Peirce wanted to believe in an anthropomorphic and personal God (CP 5.47, CP 5.496, CP 5.536; CP 6.162, CP 6.436, CP 6.502), or, if God is far more than personality, at least a God conceived as personal in our relations with God. An attribution of personality implies further expected characteristics, yet Peirce hesitated. Peirce was tempted to deny that God could have purposes or growth, but he admitted that it is 'less false' to represent God with those attributions (CP 6.466). Peirce denied that God's creative act was long ago, because God is "now creating the universe" and exemplifies "Creative Activity" (CP 6.505–06). Peirce's God is "One Incomprehensible but Personal God, not immanent in but creating the universe" (CP 5.496). Peirce repeatedly denied that we could understand God's mind, but also said that a pragmatist means by 'God' an analogue of a mind that inspires worthy principles of conduct (CP 6.502)⁴. Peirce says that God is love, exemplifying the agapic love that he finds in the evolution of the world (CP 6.157, CP 6.287, CP 6.302–04). Yet God is also entirely responsible for the creation and continued existence of the disorder, decay, tragedy, and evil (CP 6.479) that must attend the possibility of growth for the universe in general and the fighting goodness of humanity in particular.

Peirce personally held some theistic views of God, but the sort of God most compatible with his philosophical system is quite another matter. This system sets two critical restraints. First, God should not be conceived as mysteriously eluding all human conception. Peirce showed no interest in encouraging philosophy or theology to treat God in an apophatic manner, or forbidding God from having any conceivable attributes or powers. Furthermore, Peirce expressly argued for the reality of God, and anything possessing reality in Peirce's terminology requires that it share in thirdness, whatever else it may be like. Second, God's creative activity and control of creation must be explicable using the three categories. Peirce's philosophy cannot legitimate utter transcendence because there is no way to justify the existence of an entity that shares nothing, not even a '*creatio ex nihilo*' relationship, with the universes of firstness, secondness, or thirdness. The deity available to religion and philosophy must be conceived as "a Deity

4 Raposa recounts several passages where Peirce endorses God's purposive thoughtfulness (Raposa 1989, 65–66). Vincent Potter explores Peirce's anthropomorphic theism (Potter 1996a).

relatively to us” (CP 5.107). God may be fairly mysterious, not surprisingly, but a Peircean God must have some contact and/or continuity with nature, and some sort of positive cognition of God must be possible. Peirce’s God is supposed to be a creating and controlling God, so we must have some limited way of cognizing God in creation. Speaking of God as generic ‘being’ (or as the ‘ground’ of being, and the like) in order to keep God unintelligible couldn’t have Peirce’s approval: “[C]ognizability (in its widest sense) and being are not merely metaphysically the same, but are synonymous terms” (CP 5.257). A completely transcendent, metaphysically uncategorizable, and entirely empty conception of God is no God at all (CP 6.492). Peirce’s own claims about God and his philosophical commitments tend to rule out a completely transcendent God, a deistic God who creates just once and then abstains from control, and an entirely mysterious God.

Some sort of acquaintance and even modest knowledge of God who continually creates within nature is possibly accessible for human experience and intelligence. This requirement of continual creation must therefore be coordinated with Peirce’s grand evolutionary narrative of our universe. No single essay recounts this narrative; important segments appear in *A Guess at the Riddle* (1887–88), *The Architecture of Theories* (1891), *Evolutionary Love* (1893), and *The Origin of the Universe* (1898). A single paragraph among Peirce’s published writings encapsulates his evolutionary cosmology:

[I]n 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 (CP 6.33).

In his cosmological speculations Peirce is anxious to emphasize the ‘sportings’ of chance’s firstness and the way that nature’s habits (the laws of nature) retain some degree of random variation (the role of ‘tychism’) throughout the universe’s evolution. That variation accounts for the flexibility of law, but it cannot by itself explain evolving growth. In the operations of thirdness “advance takes place by virtue of a positive sympathy among the created springing from continuity of mind” (CP 6.304).

Peirce labeled his own view as ‘agapasticism,’ that philosophy which admits the operations of tyochastic chance (firstness, quality, feeling) and anancastic mechanism (secondness, necessity, reaction) but prioritizes

the work of agapic mind (thirdness, teleology, semiotics). The thirdness of mind, in Peirce's evolutionary cosmology, is embodied in nature's laws. Those parts of the universe strictly controlled by the near-necessities of strictly rigid habit appear to us as material objects in their lawful energies as studied by the natural sciences. Those parts only gradually coming into lawful habit appear to us as intelligent organisms in their teleological purposes as studied by the biological, social, and semiotic sciences. Mere matter blindly moves to lower-energy equilibriums with its environment; an organism applies synthetic chemistry upon its environment to sustain a higher-energy disequilibrium within an internal structure. Sustaining this metabolic disequilibrium permits an organism to expend extra energy for selective interactions with its environment. Those interactions rise from the level of mere chemical affinity to organic selectivity. This selectivity (sensitivity, discrimination, reaction), functioning to maintain its characteristic metabolism, is an organism's mentality. Teleological functioning is exhibited where habitual selectivity attains similar results (incorporation of useful external energy) despite dissimilar conditions (varying external environments) during much of organism's existence.

Peirce's broadened this naturalistic understanding of teleological mentality out to a cosmological scale, discerning signs of habitual selectivity and deliberate guidance in the universe's evolutionary growth. For Peirce, there could be little of the universe where mind is entirely absent. Peirce's agapasticism is a novel kind of objective idealism. "The one intelligible theory of the universe is that of objective idealism, that matter is effete mind, inveterate habits becoming physical laws" (CP 6.25). Peirce acknowledged his debts to Hegel but preferred to associate with "a Schelling-fashioned idealism which holds matter to be mere specialized and partially deadened mind" (CP 6.102). This idealism also offered a deeply aesthetic and organic worldview congenial to Peirce's admiration of the Stoic ethical life, which also requires divine involvement (Shook 2011).

In his *Neglected Argument*, Peirce tries to show that our observed universe is a fully evolutionary system, with plenty of opportunity for a creative God to interactively guide the universe's evolution. His overall philosophy indicates that a God must, in order to be so intimately involved with the creation and evolution of the universe, have a far closer relationship than just a traditional '*creatio ex nihilo*' theory. A Peircean God would have attributes and powers that are identical to, and overlap with, those of creation. Peirce's philosophy points away from classical theism, but what sort of God could his philosophy point towards?

4. God in Nature, Nature in God

There are three terms that must be coordinated when considering kinds of divinity: God, creation, and primordial nothingness. In his late writings, Peirce added a 'zeroness' to his categories of firstness, secondness and thirdness. The primordial nothingness is "prior to every first" and is a "pure zero" of "unlimited possibility" and "boundless freedom" (CP 6.217). Peirce decided that his cosmology demanded an account of the origin of firstness. The chaotic realm of firstness is a kind of nothingness for Peirce, since pure firstness enjoys neither the existence of secondness nor the reality of thirdness. He then appealed to more fundamental nothingness prior to the nothingness of firstness.

Even this nothingness, though it antecedes the infinitely distant absolute beginning of time, is traced back to a nothingness more rudimentary still, in which there is no variety, but only an indefinite specificability, which is nothing but a tendency to the diversification of the nothing, while leaving it as nothing as it was before (CP 6.612).

We may rule out the idea that Peirce's God should be entirely identified with this primordial nothingness. Although Peirce does find God involved with this extraordinary potentiality, his philosophy could not limit God to just this mode of creativity. Attributes expected of Peirce's God, especially the requirement that God is a mediator possessing definite reality, requires that God must be much more than just this primordial potentiality of nothingness. However, as noted already, it may be convenient to locate some of God's creativity at this primordial stage, otherwise firsts would spontaneously emerge without any divine assistance or guidance. Peirce himself lends support to this divine role (CP 6.199).

Philosophically, there are three possibilities. If God is in the primordial nothingness so that its eruptions into the diversity of firsts are God's responsibility, then God is involved in the creativity of firstness. Alternatively, if God is not identifiable with the primordial nothingness yet has the capacity to elicit firsts and then manipulate them, God can control the development of emerging firsts into reacting seconds and on to regular thirds so that God can control the universe's evolution. Finally, if God has powers neither over the primordial nothingness nor the origin of firsts, and has no capacity to elicit chosen firsts, God can still selectively control the mediation of interacting seconds and then regular thirds so that God can control the universe's evolution.

Before going further, the reader should be prepared to leave behind traditional '*creatio ex nihilo*' schemes for exploring where this inquiry must

proceed. Peirce's God, in all remaining scenarios under consideration here, essentially participates in creation from some sort of 'nothingness,' and either encompasses nothingness within itself or grapples with a kind of nothingness that it isn't responsible for. Furthermore, both the primordial nothingness and the relative nonbeing of firstness continue to have influence over how creation develops into the ultimate future, despite the way that Peirce categorically denies existence to them both (Mayorga 2007, 115–20). Both God and the created world must participate somehow with nonexistence to some degree. The dialogical contrast inherited from the Greeks between being and nonbeing does not function in Peirce's cosmological system. It is just as wrong to say that Peirce still approved of creation *ex nihilo* as it is to suppose that Peirce abandoned it. Presumptions about creation *ex nihilo* do deserve re-examination (Keller 2003; Robson 2008; Soskice 2013; Oord 2014). Peirce says that the only positive conception of nothingness from which the universe originated is "boundless possibility" (CP 6.217). What sort of God can creatively manage such a thing?

Four options now start to diverge and distinguish themselves: two types of pantheisms (all is in God), and two types of pantheisms (God is in all), permitting four basic options to start from. The first option holds that some of God's reality is beyond nature, and God is entirely involved with the universe because all of creation and primordial nothingness is part of God. This simple panentheism is pantheism plus a partially transnatural God. The second option holds that some of God's reality is beyond nature, and God is entirely involved with the universe because all of creation (but not the primordial nothingness) is part of God. This emergent panentheism locates God's participation with nature mostly in the operations of thirdness. Admittedly, these are crude versions of pantheisms, not to be confused with sophisticated definitions. However, elaborating complex varieties of panentheism is not useful here, because Peirce's philosophy barely admits a consideration of basic pantheisms, much less anything more sophisticated. The third option is pantheism, holding that nature (including the primordial nothingness) is entirely identical with God and there is nothing of God beyond nature. The fourth option is emergent pantheism, holding that all of God's being is within nature (but not within the primordial nothingness), so that God has to come into existence along with creation⁵.

5 For detailed discussions of pantheisms see Clayton (2004), Towne (2005), and Cooper (2006). Gregersen distinguishes a Christian panentheism reconciling creation *ex nihilo* with divine immanence from other types of panentheism, although he omits the Peircean approach (Gregersen 2004). See also Harris (1992) and Clayton (2008). Levine discusses systematic varieties of pantheism (Levine 1994).

All four of these kinds of gods are compatible with Peirce's basic insistence that God's creativity is intimately involved with every phase of the universe's development, from the earliest stages of nature's development where primordial eruptions of firstness becomes connected through secondness, all the way to the final stage of the universe's static rigidity. Let's examine the respective merits of panentheism, emergent panentheism, pantheism, and emergent pantheism in relation to Peirce's philosophy.

5. Panentheism

Peirce's philosophy, upon a cursory examination, can easily appear to support straightforward pantheism. A pantheistic God would presumably have maximal creativity since God is both more than nature, within nature, and before nature in the primordial source of creativity. It is no objection to be troubled by the notion of divinity within the nothingness of potentiality; Peirce's nothingness is still a mode or manner of creativity. The difficulty lies more in the way that he separately credits both God and the primordial nothingness with plenty of creativity, sufficient to create a universe without the other. However, merely creating some universe is not enough. For Peirce, as well as for us, the more intriguing question is why our own universe was created in particular, and not merely any universe in the abstract. After all, it is the universe that we do know that requires explanation. If God has full control and responsibility for creation in every possible way, explaining this actual universe may be easier.

If God is in everything, why should some of God be beyond nature? Panentheism can have more explanatory power than pantheism. We have noticed that if God is manipulating pure potentiality to create firsts during the primordial *alpha*-stage, that divine creative activity must be the manifestation of some unnaturally divine influence since nothing natural exists yet. That transcending influence could be some unknown divine power beyond firstness, secondness, or thirdness, but consistency with Peirce's philosophy indicates that such power would be some sort of creative thirdness that pre-exists the origin of our universe. It is wise for Peirce to attribute at least thirdness to God, and God's necessity seems to fit well with the lawfulness of thirdness. If none of the three categories really apply to God, then God's relationship with creation is utterly mysterious, and worse, Peirce's philosophy would be utterly unable to say anything about God. For God to have a creative relationship with creation, God's own thirdness (God's mediation with creation) ought to be involved, yet thirdness itself is supposed to be created by God.

Peirce claims that God creates all three universes, yet he adds that “they, or at any rate two of the three, have a Creator independent of them” (CP 6.483). This is likely Peirce’s manner of reminding us that God cannot be entirely independent of thirdness, because thirdness must be an attribute of God, a crucial mode of God’s creative activity. God’s transcending thirdness may be sufficient to account for God’s participation in every stage of the universe’s development. A transcending thirdness also can account for the notion that if God is working out the universe according to a pre-thought design, that plan (a schema of thirdness) has to exist in some sense before nature.

Peirce appears to indicate his preference for this view of God’s plans for the universe. God is “pure mind” and “has its being out of time” but any enaction of this pure mind would be manifested as dynamic thirdness. “Pure mind, as creative of thought, must, so far as it is manifested in time, appear as having a character related to the habit-taking capacity” (CP 6.490). Peirce himself inclined towards viewing God as that necessary being. Furthermore, if God is a necessary being, and if nature is contingent, some of God’s reality must necessarily be beyond nature. If thirdness is already among the attributes of God, then God doesn’t create all thirdness. Some uncreated necessary thirdness therefore transcends nature.

What sort of necessity would this panentheistic God possess? Nature’s contingency can raise deep puzzles for a panentheistic God. God’s close involvement with all of nature was held by traditional theology to be incompatible with an absolutely necessary God. If God is entirely responsible for the creation with which it is entangled, and nature has entirely contingent features, then God must necessarily have contingent features. Peirce consistently attributes degrees of contingency to God, and his philosophy must confirm this contingency. Since the universe’s evolutionary growth includes (and indeed requires) a degree of real chance, and God’s creativity is intimately involved with this growth, then God’s reality should include contingency. Put another way, an attempt to insulate God from all contingency implies that God is not intimately involved with the chanciness powering evolutionary growth. This contradicts Peirce’s claim that God is involved with all three universes, limits God’s supposedly infinite powers, and denies God complete responsibility for the universe. For Peirce, creativity implies contingency. A panentheistic God should possess some contingency in addition to uncreated necessary thirdness, if we expect this Peircean God to be creative.

It is not enough to locate the needed divine contingency in the primordial nothingness; contingency must be involved with God’s transcending thirdness as well. If God is creative, and God has necessary transcending

thirdness, we have to return to the necessity-contingency puzzle. A puzzle now arises for the nature of God's necessary thirdness. Is God's transcending necessary thirdness dynamic or static? An entirely static thirdness could be dynamic just in the minimal sense that it is responsible for changes to creation without itself changing. This view would be similar to a traditional theological view of God motivated by concerns over attributing contingent change to a necessary being. On the other hand, Peirce's understanding of thirdness indicates that God's thirdness must not be entirely static, since thirdness is supposed to be essentially dynamic through its own operations and its effects. Furthermore, Peirce is clear that all thirdness involves some small element of chance. So we return to the heart of the puzzle of panentheism: How can the transcending portion of God be both necessary and contingent? If Peirce were tempted to solve these puzzles with traditional theological options, he could view the transcending thirdness of God as necessary in reality, necessary in fixity, and necessary in operations. If the transcending portion of God is some rigid perfection of mind that creates without changing, necessarily creates, and necessarily creates what it does create, then nature would be quite contingently dependent on an entirely necessary God. This is a panentheistic God, but it can be criticized for the same problems that have been raised for a transcendent God and an *omega*-stage final God. It is hard to understand how transcending rigid necessity can creatively influence dynamic nature.

Furthermore, an entirely necessary creator God makes it hard to account for any contingencies of nature: that creation did get created, how it was created, why this creation has certain contingent features, and why this creation evolves contingency in the way it does. Locating divinity within the extreme contingency of primordial nothingness does not help answer these questions by itself, since crediting pure chance does little to explain our own particular universe. God's transcending necessary thirdness must remain under scrutiny. Genuine contingency in the creation seems to reflect back on the Creator. Contingency can be explained by contingency, and necessary law can explain contingency, but rejecting an infinite regress (even for God's decisions, laws, and plans) may tempt us to resort back to contingency again even at the divine level. This explanatory track leads many theologians to the conclusion that only a decision of a deity makes a sufficient explanation for such questions about creation. However, the simple question of why God made one decision rather than another (was this decision necessary or contingent?) returns us to the familiar track of explanation all over again. We may appreciate Peirce's theory of spontaneous inexplicable creativity of pure possibility from nothingness as an effort to throw a third term into the

endless two-term cycle. If God is in the primordial nothingness, then God can be responsible for chance possibility, be responsible for controlling the regulation of possibility into habit, be responsible for the overall plan for the universe, and hence be fully responsible for creation. However, locating a rigid and static necessary God behind the divinely random nothingness to explain creation from that nothingness only erodes any utility for adding the third term of nothingness.

Regarding the transcending necessary thirdness of God as dynamic has additional advantages for understanding its relation to the rest of creation. On Peirce's philosophy, God cannot externally provoke the primordial potentiality to produce firsts. There can be no causal relations with such a pure potentiality and it is capable of plenty of diversification all on its own. God transcending thirdness has a role to play with that source of creativity, however. The way that erupting firsts regularly connect through patterns of seconds involves a simplistic sort of mediating thirdness, according to Peirce. Peirce's God has a primary task of controlling the thirdness, and hence the evolutionary growth, of the universe. Fulfilling that task is precisely the answer to the question of why our own particular universe was created rather than just any sort of universe. Peirce clearly says that "*all reality is due to the creative power of God*" (CP 6.505), and reality (as opposed to the mere possibility of firsts or the material existence of seconds) is entirely a matter of thirdness in Peirce's terminology. If the transcending portion of God is responsible for managing the organization of creation from firstness through secondness to thirdness, that transcending thirdness must be extremely dynamic, since it must creatively react to whatever emerges from the primordial nothingness in order to pursue the divine plan. Even if some of God is in that primordial nothingness, that presence is not the origin of God's control over the universe. The transcending thirdness of God must necessarily be, but it must also contingently operate.

On this view of God's dynamic nature, this panentheism offers another option besides viewing God as excessively necessary or too contingent. Perhaps God utilizes both necessary and contingent features or modes of activity. If God's transcending thirdness is necessary in reality, dynamic in flux, and contingent in operation, and it functions in conjunction with God's presence in the primordial nothingness, then God is responsible for both the form and substance of our particular universe. God has two primary ways of transcending creation: by being the transcending design of thirdness and the transcending potentiality of nothingness. In the dynamic cooperation of these dual transcending aspects of God, of law and chance, the evolution of our actual universe is explainable.

An open question for this panentheism is whether the God's plan for the evolution of our universe is entirely predetermined for every last detail. 'Creatio ex nihilo' theologies can be quite compatible with firmly deterministic views on creation, as an all-powerful God can presumably plan and guarantee every event in the entire universe. God may plan every detail in advance, or may forge the details as creation proceeds. For an entirely transcendent eternal God, of course, there is no difference between an advance plan and an evolving plan; God doesn't have to react to what the universe does, and any course the universe takes must be in God's unique plan. Peirce preferred a timeless God, but the God called for by his philosophy has to deal with genuine chance and requires real time to deal with it, even if God is in the primordial potentiality. These factors are not tight limitations on God's infinite powers, since God can still guide the universe to any outcome desired. God's transcending plan may be general, vague, or incomplete, much in the way that an architect's model only anticipates the actual constructed building, after the engineering, construction, and decorative phases are completed. A model for this proposed sort of creativity is artistic creativity. Peirce does attribute artistry to God (Anderson 1987, 90–99) and appeals to artistry and aesthetics:

The universe is a vast representamen, a great symbol of God's purpose, working out its conclusions in living realities. ... In the little bit that you or I can make out of this huge demonstration, our perceptual judgments are the premises for us. The Universe as an argument is necessarily a great work of art, a great poem – for every fine argument is a poem and a symphony – just as every true poem is a sound argument (CP 5.119).

While artists typically create while referring back to some planned schema, it is also typical for an artist's plan to change, in details or even essentials, during the creation of the artwork. The artist in a certain sense creates what she intended to create, to a degree, but it is also just as correct to say that the artist usually creates far more than what was intended from the start.

While a panentheistic God can create according to some transcending plan, Peirce's philosophy suggests that this plan is itself a dynamic process that grapples with the emerging creation. There is no need to regard God's transcending thirdness as so rigid and detailed that God cannot create the way that an artist creates. This implies that the transcending nature of God undergoes some sort of evolution right along with creation. While Peirce himself may have preferred to refrain from attributing evolution, change, or temporality to his God, a simple panentheism consisted with Peirce's philosophy has many incentives to accept such a dynamic God. If part of God's being is in creation as it undergoes evolution, then it is far easier to understand the relationships between God beyond nature and God within

nature if both aspects have the attributes of dynamic thirdness and evolutionary change.

Peirce's philosophy can better support a dynamic panentheism. God's reality demands explanation as much as the universe's reality. Put another way, if God is making the universe, what was making God? We have a version of the regress problem confronting traditional theistic theology. Recall how firmly Peirce insisted that evolution is the finest mode of explanation, so we can infer that God evolves as well. Now we are confronted with a pragmatic choice: Should we come up with two separate evolutionary stories, one for God and one for the world, or should we prefer the simpler hypothesis? A natural God that evolves right along with reality is, all other things being equal, the much simpler hypothesis. Also note that nowhere does Peirce even hint at an explanation, or even the need for an explanation, of God's separate reality. Now, traditional theology does offer a response to the regress problem by defining God as the 'necessary being' that needs no origin explanation. This ontological assertion is highly controversial, even in theology. Does Peirce's logic authorize concretizing a definition into a reality? Is there some pragmatist argumentation waiting to serve as a counterpart to theology's ontological argument? There does not seem to be any such thing available in Peirce's system.

Let us turn to the second option of emergent panentheism. Although locating divinity within the primordial nothingness ensures that God has maximal responsibility for creation's form and substance, the second option of emergent panentheism has other advantages. An emergent panentheism does not locate the primordial nothingness within God; it would not locate such a nothingness anywhere. It is simply not part of creation and God does not have to be responsible for it in any way. An emergent panentheist can locate pure potentiality beyond God, or take an agnostic stance towards Peirce's nothingness hypothesis. Refusing to locate God within this nothingness is no denial of God's infinite extent, since God cannot be limited by nothingness and God cannot be determined by complete indeterminacy. After all, Peirce's philosophy is quite clear that this nothingness has no reality or being; technically, it is not part of the universe at all and it is not one of the three universes created by God. Connecting this nothingness with creativity is hard enough in any case. We have mentioned the difficulty of trying to comprehend how God could cause the primordial nothingness to produce firsts. Although Peirce was driven to postulate this nothingness to account for the origin of firsts and everything else, the emergence of our universe from firsts could simply begin with an account of these chaotic firsts. So long as this emergent panentheism holds that God is involved with first-

ness and the creation of everything else, God remains both the reality and structure of the universe.

For this emergent pantheism, the transcending thirdness of God would be dynamically creative and interactively evolutionary, just as straightforward pantheism is, for the same reasons described already. The operations of thirdness in our universe, developing it from chaotic firstness into the planned divine design, are simultaneously the reality of God in the world and the working out of the transcending divine plan. Indeed, this emergent pantheism has the easiest time portraying a close continuity between the thirdness of nature and the thirdness of God – these are not two different things, but rather two aspects of the same divine reality. The evolutionary creativity of God is present everywhere within creation, since thirdness is everywhere in creation. This emergent pantheism, by excluding pure potentiality and pure firstness from God’s being, is not limiting God or God’s powers. To say that only nothingness or sheer possibility is beyond God could be just another way of saying that God is infinite since there is nothing outside of God. Remember too that Peirce did not attribute existence or reality to pure potentiality or pure firstness. All actual firstness is already clashing and contrasting into the relation of secondness, and that process involves the mediation of thirdness as habits of contrast begin to form. A subtype of emergent pantheism locates God’s mediation especially in the emergence of life, life’s semiotic processes, and divine-human communication. Semiotics may be the key to understanding both the mode of human appreciation of God and the mode of God’s involvement in the world (Raposa 1989, 142–54; Ochs 1992; Corrington 1993, 206–10; Robinson 2010).

6. Pantheism

Turning to the third option of pantheism, which factors in Peirce’s system and especially his evolutionary cosmology support a natural God? There is no direct approval for this natural God in Peirce’s writings. However, Peirce talks about God at the beginning, middle, and end of the universe: “The starting-point of the universe, God the Creator, is the Absolute first; the terminus of the universe, God completely revealed, is the Absolute Second; every state of the universe at a measurable point of time is the third” (CP 1.362). This compressed statement permits one to view God as thoroughly equivalent with the universe, rather than transcending it.

There are additional factors in Peirce’s thought favoring a natural God. Must God influence the eruption of firsts from some transcending realm?

We have already discussed how Peirce's own account of general potentiality and the initial firsts requires no external factor, influence, or prior design. Also, Peirce points out how teleological creativity need not and should not be considered as conforming the created thing precisely as a planned design dictates. According to Peirce's understanding of creativity, God can productively create like an artist without knowing every detail in advance (CP 6.508). So long as the artist has sufficient control, there need be no arbitrary limitation on the artist's capacity to create an intended design. Does the choice of materials limit the artist's creativity? While God can only create through chance eruptions of unpredictable novelty, in enough infinities of time any and all potentialities can emerge from the perspective of divine eternity. While our visible universe appears to have a definite point of origin in the big bang, this does not mean that God only had that much time to form creation. For all we know, the big bang required preparations and our universe may only be a part of a much bigger and older creation.

Pantheism also can resolve the same necessity-contingency problem that arose for panentheism. There is no identifiable point of a 'first time' or a decision choice at which God must 'create' all the contingencies as well as necessities of creation. God the creator must necessarily create, but what God creates need not be necessary. God as pantheistic creator can have both necessary and contingent modes of divine activity, and this dual aspect of God can be consistent with God's partial transcendence of, but thorough involvement with, all of creation.

Coming to the fourth option of emergent pantheism, God has no involvement with the original eruptions of firsts at all and God must gradually come into existence along with nature⁶. In Peirce's system, God could influence further firsts by binding them into secondness once God already exists in the course of the universe's development. On this hypothesis of a natural God, God would have the creative power to create and connect more firsts after the primordial *alpha*-stage. Does this natural God exist 'at the beginning'? Almost – so long as we do not identify God with the nothingness of general potentiality, God is almost at the beginning. However, this hypothesis does not deny that God was real at the beginning. As soon as there could be any time, existence, and reality (remembering that Peirce's system denies that either general potentiality or pure firsts have existence or reality), there could be God. To deny that God was real at the very origins of Peirce's cosmological narrative is just a corollary of his definitions of general potential-

6 A Peircean emergent pantheism is explored in Corrington (1993, 173, 187, 200–04). While Anderson does not distinguish between emergent panentheism and emergent pantheism, Anderson's creative God could be entirely within nature (Anderson 1987).

ity and chaotic firstness. A natural God could be quite real as soon as there was any reality at all to speak of.

How would an emerging God control the universe? In order to form some particular universe over time, God does not have to be directly responsible for that primordial potentiality from which firsts erupt. God need only be responsible for the effect of novel firsts on the evolution of creation, which may be sufficient to permit God to control the universe's evolution to any degree God requires. This is a kind of '*creatio ex nihilo*,' not in the sense that God directly creates something from nothing, but rather that God creates from what does come from nothingness. The very opposite of *kenosis*, a divine withdrawal of absolute infinity so a contingent nature is left behind, God's management of nothingness is rather a divine embrace of absolute chance so a constructed nature is advanced. Furthermore, Peirce's evolutionary metaphysics suggests that the prior origins of our universe and the future destiny of the universe are infinitely past and infinitely future, respectively (Raposa 1989, 65–66). If Peirce's guess turns out to be accurate – if whatever produced our universe has its own beginningless past and our universe never ends in the future – then God would have an infinite amount of created time to manipulate and manage all eruptions of novelty.

Emerging pantheism, by denying that God transcends nature or that God is in the primordial nothingness, has fewer resources to deal with the necessity-contingency issue. While an emerging God may be able to handle all contingencies, the harder problem for emerging pantheism is God's own necessity and teleology. Why does nature need any God, and what destiny would an emerging God intend? Peirce does say that he intends by 'God' to refer to a necessary being. However, we should consider what Peirce's system would mean by 'necessary.' Peirce tended to equate the necessary with the rational and with whatever is derivable from reason. But mathematical necessity is a necessity of form, while metaphysical necessity is a necessity of being. For Peirce, metaphysical principles are logical principles considered as "truths of being" (CP 5.487). Peirce's metaphysics concerns the actual universe, so it is incorrect to assume that Peirce's system holds that nature must be thoroughly contingent in whole or in part. Aspects of nature can be metaphysically necessary, and it is premature to assume that nature must be thoroughly contingent in whole or part. Peirce preferred a 'hyperbolic' universe whose origins lie in the infinitely far past and whose destiny lies in the infinitely far future. His understanding of the universe does not give it the sort of definite beginning and ending that traditional theology preferred so that nature must be contingent. Contrasted with theology's notion of contingent nature, Peirce's nature can be quite necessary. If nature can be in some

sense necessary, Peirce's definition of God as a necessary being does not prevent God from being partly or wholly natural. If God is some portion of nature, God can still be metaphysically necessary. But what metaphysically necessary portion of nature might God be?

This concern for the necessity of God is especially acute for emergent pantheism, in which the creative influence of natural thirdness influences the whole development of the universe, including itself. Peirce regarded the agapastic evolution of the universe as firmly established. If thirdness is metaphysically necessary in our universe, and the reality of God is located among that realm of thirdness, then a natural God may be viewed as metaphysically necessary. Going further, Peirce sometimes referred to God's agapic creativity as a semiotic and intelligent process. God's creativity would have a naturally fitting home within the universe's necessary thirdness. In short, if semiosis is necessary in our universe, then God's creative semiosis is necessary, and God is a necessary being. Put differently, if semiosis is involved with all reality, in Peirce's special sense of 'reality,' then God's supreme semiosis would be responsible for all reality, and hence we arrive at Peirce's claim that "*all reality is due to the creative power of God*" (CP 6.505). There could have been no coherent, growing, and evolving universe without some creatively unifying factor distributed throughout the universe.

7. Scientific Panentheism

Peirce's personal convictions about God tend towards a fairly transcendent God, but his philosophical system makes a good fit with a panentheistic God, and it cannot rule out a pantheistic God. Peirce also required that a scientific theology tests conceptions of God against current cosmology. Big bang theory, relativity, and quantum mechanics provide additional tests to see how a panentheistic God and a pantheistic God fit with the actual evolution of this universe.

That cosmic evolution includes our world, where the planet's surface stays far from thermodynamic equilibrium. Organic life can emerge and survive in dynamic disequilibrium in that soupy surplus of energy. Biology now grasps how cooperation and communication is the rule rather than the exception. Evolutionary success depends on playing ever-developing non-zero sum games at every level from the genetic to the ecological. Biosemiotics, inspired partly by Peirce, is revealing information's essential role at the smallest dimensions of organic processes (Sebeok and Umiker-Sebeok 1992; Hoffmeyer 2008). Natural selection frequently favors kinds of symbiosis

such as colonies, multicellularity, and sexuality, so communal love is a corollary law of life. Could such love also prevail over the rest of the universe, where thermodynamic conditions are not so favorable for life? The universe nearly everywhere only plays host to stray cosmic radiation, charged particles, hydrogen gas, and atomic dust. Where did the universe as a whole come from, and what is its destiny?

Peirce's idea of spontaneous creativity from a primordial nothingness has similarities with quantum mechanical explanations for the big bang. Neither Peirce nor physics means by 'nothingness' an absolute absence of everything. For Peirce, a genuine nothingness is one of which nothing can be predicated – but many facts can be predicated upon an absolute absence, such as 'it is never like X, or Y' – so the true nothingness is that which any and everything could potentially be predicated (CP 6.490, CP 6.612, CP 6.622; CP 8.317). Peirce therefore expected that some positive differences, some non-symmetric contrasting bits of something, would spontaneously emerge and get into habit relations, and then increase as any tendency to growth must (CP 6.490). In this three stage process, from a nothingness of potentiality to tiny variations to a growing pattern, Peirce envisioned the origin of a physical universe.

Frank Wilczek, a Nobel Prize-winning physicist, has pointed out that an energy interpretation of an empty vacuum of absolute nothingness, according to quantum field theory, must admit the possibility of quantum deviations from nothingness. A physical nothingness must be a state of quantum chaos which has a very low entropy since the total quantity of disorder would still be very small. Intriguingly, Wilczek's version has three stages of creation that resemble Peirce's three stages:

[T]he most symmetric phase of the universe generally turns out to be unstable. One can speculate that the universe began in the most symmetrical state possible and that in such a state no matter existed: the universe was a very empty vacuum, devoid both of particles and of background fields. A second state of lower energy is available, however, in which background fields permeate space. Eventually, a patch of the less symmetric phase will appear – arising, if for no other reason, as a quantum fluctuation – and, driven by the favorable energetics, start to grow. The energy released by the transition finds form in the creation of particles. This event might be identified with the big bang. ... Our answer to Leibniz's great question 'Why is there something rather than nothing?' then becomes 'Nothing' is unstable' (Wilczek and Devine 1987, 275).

Cosmology has continued to see quantum field effects involved with the big bang, even as newer theories postulate many (infinite?) universes also arising this way (Carr 2009; Gleiser 2014), as well as from contingent events like collisions of universes or black holes generating new universes. Naturalists may take the unlimited quantum 'nothingness' to be eternal (requiring no

creation) or regard the 'multiverse' of infinite universes as always existing, so no godly creative act would ever be needed.

All the same, Peirce would point out that the eruption and formation of all these universes still requires an evolutionary explanation. His argument for godly action could be taken up to the multiverse level: Whatever manner by which universes are born, and the particular way they evolve, are matters that still require explanation. Pantheism leaves all this unexplained and leaves God to the mercy of whatever fate the multiverse may have. A dynamic pantheistic God, in contrast, is consistent with the overall creation and evolution of the eternal multiverse. Pantheism also has great difficulty explaining how God could guide a single universe's expansion and evolution. The total universe produced by the big bang may consist of millions or even billions of regions unable to affect any but its overlapping neighbors. So long as faster-than-light communication and causal guidance within the universe remains forbidden by fundamental cosmological law, a God's capacity for cosmic control must be based on powers extending beyond the natural universe, and only a pantheistic God could have such powers. The universe's accelerating expansion presents insurmountable problems for a pantheistic God, as does the possibility of another universe intersecting or destroying our universe in the future, or our universe's complete collapse at some far future point. If Peirce's God is a transcending pantheistic God, control over the universe's development would remain possible under future scenarios.

In summary, a dynamic pantheist God finds that God's creativity in nature, the growth of nature, and our own growth are co-responding, co-operating, co-evolving, and communicating processes. This Peircean God would have every opportunity to sustain life eternally, if not in this universe, then in other universes. An emergent pantheistic God and a pantheistic God would have a far greater difficulties controlling universes, and be unable to guarantee that life survives indefinitely. Peircean pantheism is the best candidate for the sort of God that the *Neglected Argument* would attempt to demonstrate in concert with current cosmology.

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John R. Shook
 University at Buffalo (Buffalo, NY, USA)
 jrshook@buffalo.edu