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Cosmogony Today: Counter-Cosmogony, Perspectivism, and the Return of Anti-Biblical Polemic

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Abstract: In this article I review critical thought about cosmogony in the social sciences and explore the current status of this concept. The latter agenda entails three components. First, I argue that – even where there is no mention of cosmogony – contemporary anthropological projects that reject the essentialist ontology they ascribe to Western modernity in favour of analytical versions of relational nondualism thereby posit a counter-cosmogony of eternal relational becoming. Second, I show how Viveiros de Castro has made Amazonian cosmogonic myth – read as counter-cosmogony – exemplary of the relational nondualist ontology he calls perspectival multinaturalism. Observing that this counter-cosmogony now stands in opposition against biblical cosmogony, I conclude by asking, what are the consequences for the study of cosmogony when it becomes a register of what it is about – when it becomes, that is, a medium of polemical debate about competing models of cosmogony and the practical implications they allegedly entail.

Keywords: anthropology of ontology, biblical cosmogony, cosmogony, cosmology, essentialism, monotheism, nondualism, Viveiros de Castro

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As has been widely reported in the media, the Large Hadron Collider (LHC) experiments at CERN, designed to “unlock the secrets of the universe” (Rincon 2008) by recreating the conditions that prevailed within milliseconds of the Big Bang, have been met with enormous public interest, but also fears and moral condemnation.

Some fears have come from within the scientific community itself. Most famously, Otto Rössler, a retired chemistry professor from the University of Tübingen, has argued that the experiments could cause microscopic black holes to form that, rather than vanishing instantly as other scientists predict, might “grow exponentially and eat the planet from the inside” (Rössler in Gray 2008). Another worrying question has been whether replicating the immediate aftermath of the Big Bang might produce “strangelets” – hypothetical aggregates of “strange matter” – that could coalesce with ordinary matter and transform the earth into “a hot, dead lump” (Rincon 2008). In 2008, these and other doomsday scenarios prompted Walter L. Wagner, a retired U.S. radiation safety officer, to file a lawsuit in the state of Hawai‘i aimed at preventing the CERN experiments from starting up. Wagner’s legal challenge failed, but he continues, as leader of Citizens Against the Large Hadron Collider, to agitate for closing down the experiments (CERN n.d.b.).¹

Popular fiction has also contributed to doubts about the wisdom of reprising the primordium. Dan Brown’s novel *Angels and Demons* (2001) imagines the esoteric Illuminati plotting to annihilate the Vatican with a capsule full of particle accelerator-generated antimatter stolen from CERN. As part of a larger effort to turn the movie version of Brown’s bestseller (Howard 2009) into an opportunity for public education, CERN sought to allay

fears that such an “antimatter bomb” might be possible, developing webpages dedicated to explaining why this kind of device would take too long to produce (about a billion years) and be too huge to manoeuvre (cern.ch n.d.a).

In other quarters, a number of Christian bloggers and contributors to online forums have objected to the LHC project on the grounds that the CERN scientists are “playing God” (e.g., Muir and Muir 2010). Almost invariably, such commentators liken the LHC to the Tower of Babel, the biblical symbol of humanity’s desire “to close the gap between the wisdom of God and the knowledge of man” (Mickey 2008; cf. Prata 2012). Pointing to the theoretical doomsday scenarios involving mini black holes and strangelets, they intimate that these may well transpire as God’s way of punishing such hubris. It has even been suggested that “[t]he logo of CERN appears to be three sixes superimposed on each other” (ChristianForums.com 2011a).

One or Two Things We Know about Cosmogony

Taken together, the scientific aims of the LHC experiments and the diverse responses they have elicited offer striking confirmation of what social scientists claim to know about cosmogony, as a conceptual object, based on historical and ethnographic studies of the myths, rituals, and metaphysical systems of ancient and indigenous societies. Cosmogony, which may be defined simply as the generation of the universe, is one of the classic loci of inquiry for philosophers, historians of religions, and anthropologists. Obviously, such scholars have not investigated the transformations of the early universe by means of experimental methods, as do the scientists at CERN; rather, they have taken as their object of study the many and varied theories and accounts of origins that people all over the world have devised, debated, narrated, and sometimes enacted. In so doing – by analyzing, documenting, and comparing such theories and accounts and their historically conditioned revisions – scholars have

developed a set of basic insights that seem to apply as much to contemporary scientific as to ancient and indigenous engagements with the idea of the beginning.

One such insight, for example, is the general tenet that people formulate and look to cosmogony as the locus of truth about ontology, as the interval in time and space that uniquely discloses two things: the number and nature of fundamental entities or relations that exist in the cosmos, and the processes that gave them their current configurations.² Arguably, just such a presupposition that origins reveal deeper realities behind present appearances is legible in the discourses CERN has formulated to explain its experiments, and consequently in the language science journalists have employed to do likewise. Thus, a CERN-linked website publicizing the ATLAS experiment states that “[t]he LHC recreates, on a small scale, the conditions of the Universe just after the Big Bang in order to learn why the Universe is like it is today” (atlas.ch. n.d.a). More specifically, it does so in order to allow the ATLAS detector to register evidence of hypothetical realities: hidden dimensions, unknown forces, antimatter, dark matter, and “surprises” (atlas.ch. n.d.b). Concerning the experiment known as ALICE, a BBC science correspondent reported that it would attempt to replicate “a special state of matter” – the quark-gluon plasma – which existed for only a split-second at the beginning of time and was “different from the matter the Universe is formed of now” (Moskvitch 2010). This initial phase of matter, the correspondent informed us, might tell us who we really are: “If the researchers at the LHC are able to recreate that state of matter and study it, they could get important clues about how it ‘evolved into the kind of matter that can make up you and me’” (Moskvitch 2010, quoting CERN spokesman, Dr James Gillies).

Already legible in such talk about the LHC is support for a second basic insight about the concept of cosmogony: accounts of cosmogony imply and often entail rich mythologies about a primordial condition – a phase or ongoing, though normally invisible, mode of being conceived of as replete with forces that are fantastically generative but also potentially

deadly.³ Because primordality is not nothing, but also not yet cosmos (order), the value sign (and gender symbol) placed beside it is notoriously unstable. Often described analytically as “chaos”, primordality stands in a debateable, contextually changeable relationship to order. Is it the original, true and abiding flux (soup, plasma?) that belies order? Is it the well-spring of all being on which order depends for periodic renewal and reconfiguration? Is it the enemy of order, always to be contained lest it regain its precedence? Or is it, in fact, antithetical to some other coeval or antecedent form of being that organizes it, banishes it, or even wills it into existence out of nothing? These kinds of perennial questions about the nature of primordality appear, I suggest, to be informing some people’s reactions to the LHC project. If concerns over mini black holes and strangelets began as debates about what quantum theory predicts, they quickly intersected with more ambient anxieties that return to primordality may be dangerous. Could the forces that made us unmake us if unleashed again? And what if those forces fell into the wrong hands?

The reactions of some Christians to what goes on inside the LHC highlight, I suggest, yet a third lesson social science has learned about “cosmogonic thought” (Schrempf 1992: 55): there is a nexus between people’s ideas about cosmogony and their practices – not only their ritual practices, but also their everyday actions, especially their exercise of moral reason.⁴ This third insight is really a corollary to the first. As Geertz put it: “A powerfully coercive ‘ought’ is felt to grow out of a comprehensive factual ‘is’” (1973: 126; cf. Knight 1985: 143). Accordingly, because we look to accounts of cosmogony for the truth about ontology – for our most “comprehensive factual ‘is’” – our sense of what we ought and ought not to do is informed by our assumptions about cosmogony. Through their references to the Tower of Babel, Christians who object to the LHC point to biblical accounts of cosmogony and primordality in ways that derive from them a particular ontological and ethical order. In line with conventional understandings of the story, these Christians read the Tower of Babel

episode in Genesis 11 as a demonstration that “God steps in whenever man reaches too far” (ChristianForums.com 2011b). Such interpretations rest on an assumption that to be human is to occupy a specific ontological position in the cosmos that is limited and policed by God. This assumption is linked in turn, I suggest, to the widely held Judeo-Christian view that the Bible, especially Genesis 1-3, asserts a difference between God as creator and humanity as creature, although the exact nature of this difference – whether it is absolute or somehow otherwise – is much contested. In any case, the implication is that God and humanity now have their proper spheres of being and knowledge and that these are vertically asymmetrical. Humans, therefore, ought not to attempt to ascend to heaven, but should accept the terrestrial finitude of creatureliness. To underscore this point, the online forum contributor quoted above also included in her post the text of Genesis 3:22: “Then the Lord God said, ‘Behold, the man has become like one of us, knowing good and evil; and now, lest he put forth his hand and take also of the tree of life, and eat and live for ever.’” According to the next verse, it was precisely in order to pre-empt this earlier human bid for divinity that God expelled Adam and Eve from the Garden of Eden.

But responses to such responses, and even a cursory web search on the subject, quickly indicate that not all Christians or Abrahamic monotheists agree that the LHC is a case of humanity overreaching its proper limits. And this confirms a fourth and crucial thing we know about cosmogony: accounts of cosmogony are always multivocal, contested, and conditioned by competing interpretations, variants, and rival accounts; for this reason, the practical implications of any cosmogonic scenario are never monological, self-evident, or irresistibly prescriptive.⁵ Even among those Christians who hold the Bible to be inerrant, the LHC has precipitated debates about human nature that index different moral inferences drawn from shared scriptural accounts of primordially. In reply to those inerrantists who argue that the LHC is an expression of humanity’s will to achieve omniscience apart from God and is

thus a symptom of fallen human ontology (e.g., Colson 2009), others counter that the LHC is an expression of humanity's unique rational capacity and is thus a manifestation of the image of God in human ontology (e.g., Van Sloten 2011; Zweerink 2009). Likewise, many Jews and Muslims, their differences with Christians (and one another) notwithstanding, readily see in the LHC an example of humanity fulfilling its God-given abilities and role in the cosmos (e.g., Nash 2009; Price 2012).

Finally, these online discourses, and the threads they generate, illustrate a fifth recognized aspect of cosmogony. They show that the nexus between cosmogony and practice works both ways. Just as people's accounts of cosmogony can inform their negotiations of everyday life, the contingent nature of everyday life, especially the advent of the unexpected (in this case, new developments in science, but also ruptures such as colonialism) can change people's understandings of what "is" and therefore move them to reconfigure their accounts of cosmogony, or even exchange old accounts for new (cf. Sahlins 1985).⁶ Reactions to the LHC make it clear that the Abrahamic faithful feel compelled to grapple, in one way or another, with scientific models of cosmogony as potential rivals to models derived from their respective scriptures. Many simply reject scientific alternatives altogether. But others re-read their scriptures in ways that, although they might deny it, amount to creating new versions without changing a word. For some, this means reiterating the Cartesian bifurcation of ontology into material versus immaterial, ceding authority concerning the genesis of matter to science while retaining for scripture, re-read as metaphor, authority concerning moral and spiritual truths. For others, in contrast, this leads to creative reinventions of panentheistic understandings, finding warrant in scripture for positing God/spirit as a yet-to-be-detected kind of matter, a true "God particle," ingredient in and animating all things. For still others, the challenges of science motivate heroic attempts to convince themselves and others that creation and scripture (read correctly) are mutually corroborating revelations,

never at variance.⁷ And this list of possibilities is not exhaustive. Combinations of these and other strategies for reconciling scientific accounts of cosmogony with faith in a transcendent and/or pervasive creative intentionality could, no doubt, also be found. Furthermore, it is not just a matter of the faithful revising their cosmogonic outlooks in light of science. Some scientists, it appears, revise their theories in order to eliminate the need for a wilful creator as encompassing explanation (Rubenstein 2012, 2014).

This contemporary plurality of cosmogonic models, along with the diversity of people's efforts to sort or integrate them, serves as a forceful reminder that no account of cosmogony, however culturally dominant, has ever existed in a vacuum, unconditioned by others. All accounts of cosmogony entail what language theorist Mikhail Bakhtin (1984: 196) termed "internal" or "hidden polemic"; they implicitly reference and are thus shaped by the rival models or existing variants they are designed to contradict, encompass, elaborate, or supersede. They carry their historical others within them as what they have attempted to negate or incorporate and as what they may, in new ways, become again.⁸ Having developed in contexts of controversy and debate, accounts of cosmogony induce more of the same, lending themselves to ongoing dialogic fission and revision. Given this complexity, the practical implications of any cosmogonic model are ambiguous and multiple, contributing to disparate, even contrasting, aspects of a particular context or history. And, conversely, every context and history is likely to index the co-existence of more than one cosmogonic model.

With these basic insights in view, my main objective in this essay is to explore what I take to be the current state of play respecting the concept of cosmogony. To this end, I focus on recent discourses within anthropology, the discipline I know best; but, as I will indicate, analogous discourses have long been evident in other fields as well. The claim I will elaborate is that anthropology itself is now a means by which some academics are seeking to transform what they regard as the essentialist assumptions of Western ontology and, along

with these, the models of cosmogony they say inform Western thought and practice (including anthropology). While remaining a locus of ethnographic inquiry into indigenous non-Western accounts of cosmogony, anthropology has additionally become the generator and promoter of a theoretically posited and preferred model of cosmogony, often employing the former to develop the latter.

In previous work (Scott 2013, 2014), I have drawn attention to the ways in which various prominent anthropological projects are theorizing a particular ontology I call relational nondualism (discussed below) and are enjoining commitment to this ontology as a methodological premise. Extending these observations, I seek here to highlight how such projects also promote a specific model of cosmogony: they privilege images of eternal relational becoming that preclude all notions of absolute beginning(s) and the pure categories they presuppose. In order to bring this theoretically posited cosmogony (or meta-cosmogony) into view, I point to its otherwise non-obvious presence within two different but intersecting lines of work in current anthropology. First, I contend that – even where there is no mention of cosmogony as such – anthropological projects that reject modern Western essentialism in favor of relational nondualism thereby posit what I will term a “counter-cosmogony” of eternal relational becoming. Second, I develop this argument by analyzing how Eduardo Viveiros de Castro has made Amazonian cosmogonic myth – read as counter-cosmogony – exemplary of the relational nondualist ontology he calls perspectival multinaturalism. Having thus precipitated the counter-cosmogony prescribed by these projects, I remark finally on a surprising irony: I note an incipient tendency to contrast this counter-cosmogony with biblical cosmogony in ways that drastically essentialize both, correlating the former wholly with positive and the latter wholly with negative practical outcomes. Accordingly, I conclude by asking, what are the consequences for the study of cosmogony when it becomes a transformation of what it is about – when it becomes, that is, a

medium of polemical debate about competing models of cosmogony and the practical implications they allegedly entail.

Counter-Cosmogony: The Rejection of Absolute Beginning(s)

It might immediately be objected that models of eternal becoming are not accounts of cosmogony at all, but rejections of the concept of cosmogony itself. Such an objection presupposes that the concept of cosmogony pertains only to absolute beginnings. I am employing and advocating a more capacious understanding of cosmogony, however. Like those scholars who argue that the Buddhist teaching known as “dependent origination” is a cosmogonic doctrine (Reynolds 1985: 205), I take a more inclusive view that recognizes models of continual relational emergence as cosmogonic (cf. Rubenstein 2012, 2014). That said, I propose to call the models of eternal relational becoming now evident in many anthropological projects *counter-cosmogonies*, where “counter” is an acronym for continuous, open, unoriginated, nonlinear, transformational, emergent, and relational cosmogonic processes. With this shorthand, I seek to recognize that many of the anthropologists whose work foregrounds continuous becoming do not characterize it as cosmogony and might, in fact, wish to offer continuous becoming as an alternative to cosmogony, understood in the narrower sense of absolute origins. My term counter-cosmogony is thus a deliberate contradiction; it asserts that the accounts of infinite generativity to which it refers both are and are not cosmogonies.

The anthropological projects I have in mind are those that theorize and strive to adopt a methodological meta-ontology of relational nondualism. By meta-ontology I mean the ontological assumptions, whether implicit or intentionally formulated, that theorists and ethnographers bring to and/or derive from their studies (Scott 2014). Since the late twentieth century, a number of influential anthropologists have been drawing a contrast between the

dualist ontology they ascribe to Euro-American modernity and diverse but mutually intelligible versions of a relational nondualist meta-ontology they conceptualize and endorse with reference to ethnographic others (e.g., Evens 2008; Ingold 2000: 11-26, 87-110; Kohn 2013; Latour 1993; Rose 2011; Strathern 2004; Viveiros de Castro 2012; Wagner 1981). Briefly put, the contrast between these ontologies goes like this.

Contributors to the development of relational nondualism as an anthropological meta-ontology have critiqued Euro-American modernity, especially modern science, as predicated on an essentialist ontology they variously term Cartesian or Kantian dualism. According to these critiques, Cartesian moderns presuppose two pure and mutually exclusive ontological categories: the immaterial and the material. This master dichotomy underpins a series of analogous hierarchical oppositions, all of which extend but remain reducible to these two essential terms: mind/body, subject/object, transcendent/immanent, concept/thing, and culture/nature. Within “nature” as thus conceived of by Cartesian moderns, this dichotomy furthermore informs the hierarchical oppositions animate/inanimate and human/animal.

At the same time, this basic dualism generalizes into a pervasive essentialism, characteristic of ontological monisms as well as pluralisms. Under such essentialist regimes, the law of non-contradiction applies to everything; a thing is essentially itself and nothing else, and nothing can be itself and something else at the same time. As the most fundamental opposition to which this law applies, the immaterial/material dichotomy is thus the exemplary analogue behind every x/not-x opposition. Critics of this ontology are quick to point out that absolute monisms, whether idealist or materialist, do not overcome this fundamental dualist essentialism. Rather, by reducing everything to either the immaterial or the material, these options cast one of the two terms as ultimately unreal and epiphenomenal to the other; in so doing they re-assert rather than eliminate the purity and incompatibility of these two categories.

This dualist essentialism is also said to motivate a practice of domination. The modern Cartesian person allegedly assimilates every relation to the hierarchical relation between transcendent immaterial subject and inert material object and treats the latter as passively available for appropriation, analysis, consumption, or annihilation. While many anthropologists agree that this approach has yielded the achievements of modern science and technology, they also argue that it has fostered both political and epistemological imperialism. Cartesian moderns have, by this account, not only empowered themselves as the only fully human subjects fit to rule over others, they have also privileged their science as the only true representation of nature, in contrast to which the representations of others are merely more or less erroneous cultural constructions.

As an alternative to this dualist-essentialist ontology and its double-edged practical consequences, a number of anthropologists have been recommending methodological reorientation to a relational nondualist ontology they position as flowing from and consonant with the lifeways of many non-Western indigenous people, particularly those of Melanesia, Australia, Amazonia, Inner Asia, and the circumpolar north. The ethnographic record shows, these anthropologists suggest, that whereas Cartesian dualists encounter a world full of discontinuous bounded things, people in these regions engage with things as composed of and composing relations. For these indigenous relational nondualists, there are allegedly no pure autonomously arising essences or categories; instead, everything participates in the ongoing emergence of new but intrinsically kindred forms in endlessly ramifying and reconnecting trajectories and networks of becoming. Inspired by their fieldwork immersions in such modes of becoming, some anthropologists are developing ethnographically theorized versions of relational nondualism and promoting them as ethically preferable to Cartesianism. Relational nondualism is better than Cartesianism, it is said, because it offers no ontological impetus to or grounds for regimes of absolute truth or the formation of static hierarchies. In

the unbegun and open flow of relations, nothing enjoys perfect precedence over anything else. There are no elementary forms or form to which everything reduces; everything is nothing but a contingent, particular, transient multiplicity in the midst of disintegrating and becoming-other(s). Accordingly, it is said, there is no transcendence beyond the “flat ontology” of relational nondualism; everything, whether human or animal, animate or inanimate, inheres in the same tissue of immanence as a coequal subject and agent. It is claimed, furthermore, that where such anarchic mutability is taken for granted, egalitarian forms of reciprocity and mutual care have the best chance of flourishing.

In the anthropological literature that has elaborated this contrast between Cartesian dualism and relational nondualism, the concepts of ontology and cosmology have been far more in evidence than that of cosmogony. I take the position, however, that to describe a cosmology as entailing an ontology of relational nondualism (by one name or another) is to describe a cosmology that implies eternal becoming, or counter-cosmogony. Where there is relational non-dualism, cosmology and counter-cosmogony become synonymous. I would argue, therefore, that examples of this phenomenon – i.e., the ethnographic or theoretical characterization of a relational nondualist cosmology or ontology that implies and thus constitutes a counter-cosmogony – include: Tim Ingold’s account of “animacy” as “continuous birth” (2011: 67-75); Eduardo Kohn’s model of universal semiosis in “an ever-emerging world beyond the human” (2013: 66); Morten Axel Pedersen’s analysis of shamanism as “an ontology of transition” (2011: 35); Martin Holbraad’s conceptualization of a “motile ontology” with an always emergent and changing “motile truth” (2012); Roy Wagner’s “holographic worldview” (2001); Marilyn Strathern’s practice of drawing “partial connections” from a “postplural perception of the world” (2004); Bruno Latour’s “actor-network-theory” (2005); and Terry Evens’s nondualism of “ambiguity or between-ness” (2008).

Amazonian Cosmogony: The Charter Myth of Perspectival Anthropology

There is another project, however – one that intersects in one way or another with almost all of those just mentioned – in which cosmogony, by that name, holds pride of place. This is Eduardo Viveiros de Castro’s development of “perspectival anthropology” as a methodological approach inspired by his understandings of Amerindian perspectival animism. It would be an overstatement to say that Viveiros de Castro’s analytical accounts of Amerindian perspectivism are based on his readings of Amerindian cosmogonic myth alone, yet these readings are unquestionably central to his expositions of perspectivism. They therefore likewise provide key imagery for thinking about and understanding his proposals for a perspectival anthropology.

Viveiros de Castro has elaborated the concept of perspectival animism based on his own and other anthropologists’ work in a variety of contexts, chiefly in Amazonia but also well beyond Lowland South America. In all its diversity, the common denominator that constitutes perspectivism as “an indigenous theory” (Viveiros de Castro 2012: 47) is a presumption that some animal species, and often other kinds of entities, are in fact persons who see themselves as human; by this theory, human personhood is common, if not universal, to a great diversity of bodies. These bodies, furthermore, condition this common humanity differently, yielding a plurality of incommensurate perspectives. Among the Campa of eastern Peru, for example, the entities the Campa see as jaguars see Campa as peccaries to be hunted, while among the Akuryiío of Surinam, the entities the Akuryiío see as maggots on rotten meat are seen by vultures as fish. These different perspectives are not perspectives *on a world*, according to Viveiros de Castro, but *are worlds* themselves, generated by differently abled bodies as different arrangements of “the common original ground of being” that is human personhood (2004a: 6).

Attention to cosmogonic myth is not always a feature of ethnographic descriptions of what perspectivism looks like in the daily lives of Amerindians. Yet, as exemplified in the phrase just quoted, Viveiros de Castro consistently appeals to Amerindian ideas about an original condition – and to one Campa cosmogonic paradigm in particular – as especially revealing of the onto-logic that informs the assumptions and practices of perspectival animists. In a recent restatement of his ideas, he even asserts that what he calls perspectivism is “a doctrine explicitly elaborated in shamanism and native mythologies” and that it “originates in indigenous cosmogonies” (2013: 4). He thus reinforces the anthropological wisdom according to which there is a nexus between the accounts of cosmogony people formulate and look to for the truth about ontology and their everyday moral reasoning and practices. In so doing, he effectively positions Amerindian cosmogonic myth, and more importantly his analytical claims about it, as a kind of charter myth behind all perspectivism, including the “perspectival anthropology” he seeks to promote (Viveiros de Castro 2004a). Moreover, in dialogue with the philosophy of Gilles Deleuze, he establishes this charter cosmogony of perspectivism as counter-cosmogony.

With only slight variations, versions of the following text have appeared in many of Viveiros de Castro’s publications: “if there is a virtually universal Amerindian notion, it is that of an original state of undifferentiation between humans and animals, described in mythology” (1998: 471; cf. 2004b: 464; 2005: 40; 2012: 55). This state of undifferentiation, he goes on to explain, is humanity, but not humanity as we know it; it is an original cosmic humanity conceived of as “the matter of the primordial *plenum*, or the original form of just about everything” (2005: 40). Beyond the evidences of everyday perspectivism, which are said to point to this primordial humanity, Viveiros de Castro’s favorite ethnographic support for these assertions is Gerard Weiss’s account of a Campa cosmogonic paradigm:

Campa mythology is largely the story of how, one by one, the primal Campa became irreversibly transformed into the first representatives of various species of animals and plants, as well as astronomical bodies or features of the terrain. ... The development of the universe then, has been primarily a process of diversification, with mankind as the primal substance out of which many if not all of the categories of beings and things in the universe arose, the Campa of today being the descendants of those ancestral Campa who escaped being transformed. (Weiss 1972: 169-170, in Viveiros de Castro 2004b: 465; 2005: 41; 2012: 56; cf. 2007: 157-159)

This account of cosmogony has become, perhaps especially for non-Amazonianists interested in perspectivism, *the* Amerindian cosmogony, implicitly standing in for all of the otherwise unelaborated myths to which Viveiros de Castro refers in his explications of perspectivism. It is as if one were tacitly invited always to have this model of cosmogony in mind whenever thinking about perspectivism and its broader analytical, methodological, or political implications.

Now, myths that seem to index an “original state of undifferentiation” are well documented globally and have often been interpreted as evidence of monism – the idea that everything in the cosmos originates from one homogenous categorical source that thus unites all apparent discontinuity in underlying identity of being.⁹ But Viveiros de Castro is at pains to argue that the primordial humanity constituting “the common original ground of being” (2004a: 4) in Amazonia is not an all-encompassing monad that has divided into externally varied but internally consubstantial and pure fragments of its uniformly self-same being. Rather, the primordial human of Amazonian cosmogony is, by Viveiros de Castro’s reckoning, a true *plenum* not a plane, a multiplicity not a monolith. “This pre-cosmos”, he writes, “very far from displaying any ‘indifferentiation’ or originary identification between

humans and nonhumans, as is usually formulated, is pervaded by an *infinite* difference” (Viveiros de Castro 2007: 157, italics original). It is “a state of being where bodies and names, souls and affects, the I and the Other interpenetrate, submerged in the same immanent pre-subjective and pre-objective milieu, the demise of which (ever incomplete, always undone) is precisely what the mythology sets out to tell” (Viveiros de Castro 2012: 55-56). This is to say that Amazonian primordial humanity amounts to an original and abiding ontology of relational nondualism, a flux without singular beginning and replete with infinite possibilities for transformation. Amazonian cosmogony appears, in short, as counter-cosmogony in Viveiros de Castro’s perspectivist project.

In order to articulate what he takes to be the crucial distinction between this counter-cosmogony and any supposedly monistic cosmogony, Viveiros de Castro draws on an array of concepts and terms adapted from Deleuzian metaphysics. The primordial human or “original state of undifferentiation” (Viveiros de Castro 1998: 471) thus becomes “the ground of pre-cosmological virtuality”, characterized by “intensive multiplicity”, or “self-difference” (2007: 158). It is “a background molecular humanity” (2007: 155) from which speciated bodies are “actualised” as distinct “molar blocks” (2007: 158-159). At the same time, however, these bodies, despite the homogeneity of their respective species, retain the infinite multiplicity of the virtual as intrinsic potentiality. This means, as Holbraad and Willerslev have observed, that

Each being has the potential to transform into every other because all beings (or at least all the cosmologically significant species that enter into this perspectivist game) contain each other’s perspectives immanently. Beings can “become-other”, in Viveiros de Castro’s Deleuzian terminology, because in a crucial sense they already

“are other”: they are constituted as beings by their very potential to become something else. (2007: 330)

Obviously, such an ontology knows no law of non-contradiction. Everything that matters is always already itself and, simultaneously, everything else that matters as well. This does not mean that becoming-other is easy, however. In fact, it is usually reserved for shamans, who specialize in techniques of “translation” between perspectives. Yet the upshot of this Deleuzian counter-cosmogony is an ontology of infinite fractal multiplicity in which all significant actual bodies entail the *plenum* of the virtual as common humanity or “soul.”¹⁰

Significantly, monistic cosmogony is not the only essentialist model of origins that Viveiros de Castro problematizes vis-à-vis his reading of Amazonian myth as counter-cosmogony. As an aside in his famous University of Cambridge lectures of 1998, he seeks to marginalize both *creatio ex nihilo* (creation out of nothing) and “the fashioning of some prior substance into a new type of being” (2012: 57; cf. 2004b: 477). These both involve, he suggests, “the imposition of mental design over formless matter” (2012: 58) and thus seem to hint at a road generally not taken in Amazonia towards something like mind/matter dualism. Creation *ex nihilo*, he asserts, is extremely rare, if not virtually absent, in Amazonian mythology. Accounts of demiurges who wilfully make something old into something new are found, he acknowledges, but the work of such creators appears to be negatively valued; it always results in a defective product. In this way, Viveiros de Castro treats these cosmogonic paradigms as anomalous in Amazonia. They constitute what he terms a “creation-invention” or “creation-production” paradigm of origins that he positions as in tension with the “transformation-transference” paradigm characteristic of most Amazonian myth (2012: 58). The former, he notes, is “our archetypal model” of agency and creativity (2012: 58; cf. Descola 2013: 323-324). Arguably, however, this attempt to side-line “their” versions of

cosmogonic paradigms that resemble “ours” functions to purify Amazonian cosmogonic myth of its own intrinsic self-differences, its internal debates about ontology, and ultimately its capacities for becoming-other.

Viveiros de Castro’s recommendations for a perspectival anthropology have placed his Deleuzian translations of Amazonian cosmogony at the forefront of efforts, currently attractive to many, to reconfigure the discipline of anthropology. Via their engagement with Viveiros de Castro’s project, many anthropologists are now looking to Amazonian cosmogony, read as counter-cosmogony, for insight into a relational nondualist ontology they see as having significant implications for the ethics and practice of anthropology (e.g., Blaser 2013; Hage 2012; Holbraad 2012; Holbraad and Willerslev 2007; Pedersen 2011).

In brief, perspectival anthropology adapts Amerindian perspectivism to the ethnographic method as a meta-perspectivism; ethnographic Others and their contexts can thus be thought of as “actualization[s] of unsuspected virtualities” or unknown perspectival bodies, and the anthropologist can be likened to the shaman whose role is to move between and translate different perspectives (Viveiros de Castro 2003; 2004a). This approach, its advocates claim, overcomes the modern dualist (i.e., essentialist) epistemological hierarchy according to which scientific knowledge is superior to all other representations of the world.¹¹ Perspectival anthropology is said to do away with this problem by shifting from epistemology to ontology. Its practitioners do not ask about different ways of *knowing the world*; they ask about different ways of *being different worlds*, different actualizations of the virtual. Rethinking fieldwork as akin to the way a shaman puts on the skin or feathers of another species in order to acquire its capacities, perspectival anthropologists seek temporarily to inhabit another perspective. They then return home, equipped with experiential resources for imagining new possibilities for becoming-other. This does not mean becoming identical to the others they have known in the field. Above all, it seems to mean pointing to and

demonstrating the previously unrecognized scope for onto-political metamorphosis that all persons and contexts entail (Viveiros de Castro, Pedersen, and Holbraad 2014). By being sites of generative relation between perspectives, perspectival anthropologists become, not only shaman-like but also like the spirits shamans themselves resemble; they become “testimony to the fact that not all virtualities were actualised [in their home contexts] and that the...riverrun of fluent metamorphosis continues its turbulent course not too far below the surface discontinuities separating” different people (Viveiros de Castro 2007: 159). Aspiring to transform themselves, and perhaps also their societies, perspectival anthropologists aim to effect, not a regenerative replay of cosmogony (*sensu* Eliade), but an empowering disclosure of counter-cosmogony as constant cosmogony.

Counter-Cosmogony versus Biblical Cosmogony: Scholarship in and as Debate

Cosmogony remains of vital importance, then, as a focus of ethnographic enquiry and as a key referent in current theoretical and methodological innovation. To be more specific, a counter-cosmogony of eternal relational becoming is now influential in anthropology, not only as object of ethnographic analysis, but also as theoretical model and methodological premise. It remains to be observed, however, that accounts of this counter-cosmogony have always implied an analytical foil and have also pointed at times to an historically particular one. In the previous section, I suggested that Viveiros de Castro’s Deleuzian reading of Amazonian cosmogony has emerged as an icon of nondualist ontology. To this I would add that biblical cosmogony – read as a hard dualism – is emerging as its opposite, the icon and, indeed, the ultimate origin of modern essentialism in all its forms (monism, dualism, and pluralism).

Don Handelman, for example, has recently located the origin of the notion of absolute transcendence, and with it the invention of mutually exclusive ontological categories, squarely within biblical cosmogony, read as the creation of x by not-x:

The emergence of monotheism eventually came to posit the absolute separation of God the transcendent Creator from humankind. ... Herewith and underlined is the contrast between a cosmos that holds together from within itself through itself, and the emerging monotheistic cosmos of the Hebrew God who is boundless, infinite, unnameable, unfathomable, creating His finite cosmos as one ruptured from himself. ... The monotheistic cosmos turned the perfection of the human being into the divine purpose of the universe, yet set before human being the goal of organising the world into one that was truly, only, and solely human. For as various scholars (e.g. Bruno Latour) have commented, in the worlds that eventually derived from monotheism most living beings who were other-than-human were either killed off, reduced in their communicative capacities with humans, or, treated as inert, no longer were perceived as living. (Handelman 2014: 99)

Already in 1998, at the close of his Cambridge lectures, Viveiros de Castro had suggested something consonant. With a sense of last resort, he confided, “I am led to ask whether our naturalistic monism is not the last avatar of our monotheistic cosmology” (2012: 151). He then answered himself in the affirmative:

Our ontological dualisms derive in the last instance from the same monotheism, for they all derive from the fundamental difference between Creator and creature. ... [O]ur monistic ontologies are always derived from some prior duality, they consist

essentially in the amputation of one of the poles, or in the absorption (linear or “dialectical”) of the amputated [*sic*] pole by the remaining one. (Viveiros de Castro 2012: 151-152)

This claim, that biblical cosmogony, with its allegedly non-negotiable assertion of an ontological gap between creator and creation, indexes the innovation of the concept of absolute transcendence and with it the possibility of radical difference, is of course not new (e.g., Frankfort and Frankfort 1946; Glacken 1967: 151-153, 196-197). But it has been and remains controversial, meaning different things to different people. For some – especially, but not exclusively, the monotheistic faithful – versions of this claim have been about identifying the source of many benefits. According to these versions, the notion of divine transcendence inscribed in biblical cosmogony signalled a kind of enlightenment, a quantum leap forward in consciousness, evidence of the “higher”, if not in fact revealed, status of biblical religion vis-à-vis “primitive nature worship”, and the sine qua non behind the development of Western civilization’s rationality, historical consciousness, humane ethics, and social justice (e.g., Cahill 1998; Johnson 1987; Roberts 1993: 90-95). For others – both Jew and Gentile, theist and post-theist among them – versions of the claim have been about identifying the source of many ills. According to these versions, as we have seen, the notion of divine transcendence inscribed in biblical cosmogony signalled a kind of Fall, a loss of consciousness of the different but related subjectivities of non-humans, the reduction of everything tangible to dead matter, and justifications for the human conquest and exhaustion of the planet (e.g., Eliade 1954; Feuerbach 1854: 111-118).

Nor is anthropology the only field in which new variants of the latter are appearing. For several decades now, the concept of a single radically transcendent god, and the understandings of biblical cosmogony that have underpinned this concept, have been under

critique in diverse disciplines as the sources of Western ideologies of patriarchy, anthropocentrism, and domination. This critique of monotheism has been a focus of intense debate in theology itself, especially in the allied areas of feminist and eco-theology (e.g., Bauman 2009; Keller 2003), but also in environmental ethics (e.g., Yaffe 2001), ancient Near Eastern studies (e.g., Assmann 2008), and literature-based critical theory (e.g., Schwartz 1997).

To my knowledge, no controversy has yet arisen in anthropology over the telescoping of critiques of modern essentialism into critiques of biblical cosmogony and monotheism. Yet, arguably, the rather stark and value-laden contrast now perceptible in some anthropological discourses between the counter-cosmogony of eternal relational becoming and biblical cosmogony, cast as creator/creation dualism, constitutes the return of the old problem of determinism in the study of cosmogony.

A well-known charge against studies that find a nexus between accounts of cosmogony and human actions is that such studies treat rituals and histories as the routinized and virtually agentless enactments of mythic scripts (e.g., on Mircea Eliade, see Ellwood 1999: 104-114; on Marshall Sahlins, see Friedman 1987). Such studies, it is claimed, portray people's practical choices as determined by models they have little power to resist or alter; such studies exhibit a certain kind of essentialism, in other words. They effectively assert that accounts of cosmogony encode core dynamics that remain essentially the same over time, despite shifts to new registers of practice, or even the apparent jettisoning of mythic traditions altogether.

These criticisms notwithstanding, some anthropologists today appear to be saying something similar about the nexus between biblical cosmogony and Western essentialism in all its alleged manifestations. Despite their rejection of absolute origins, they appear to single out biblical cosmogony as the unique first cause behind a host of negatively valued practical

outcomes in Western history. Conversely, they appear at the same time to cast the counter-cosmogony of eternal relational becoming as the multi-sited source of a host of positively valued outcomes in non-Western contexts, especially universal subjectivity and limitless potential for becoming-other.

Disturbingly, this picture seems both right and wrong. Undoubtedly, dualist understandings of biblical cosmogony have indeed contributed to coercive tendencies and destructive events in Western history, and continue to do so. But they have also contributed to benevolent tendencies and great achievements. It may also be readily pointed out that dualist understandings of biblical cosmogony have not been the only models of cosmogony – or even the only biblically-based models of cosmogony – informing Western practice. Analogous qualifications apply equally, of course, to the complexities of cosmogony and practice in non-Western contexts. Undoubtedly, models of eternal relational becoming have contributed to modes of exchange and reciprocity and to negligible ecological impact in the indigenous societies where such models prevail. But they have also contributed to modes of inter-human predation that can lock certain bodies into prey positions vis-à-vis others with little possibility of becoming-other in this life. It seems self-evident, in fact, that every model of cosmogony entails its own ethical assets and challenges and that what may appear a “better” cosmogony today may become “worse” from the point of view of tomorrow. No cosmogony is the royal road to either catastrophe or utopia (cf. Descola 2013: 402-406; Scott 2014: 47-48). As we have seen, moreover, even in Amazonia there are intimations of cosmogonic models other than eternal relational becoming; this must be true as well in other non-Western contexts.

What, then, is the upshot of all this for the ongoing study of cosmogony? If we remain persuaded that there *is* a nexus between cosmogony and practice, but we want to avoid the distortions of determinism, how might we best study cosmogony?

Two opportunities for further study immediately suggest themselves. On the one hand, we may take the study of cosmogony itself as a fieldsite, as a forum in which accounts of cosmogony are formulated and debated. This involves hesitating to take at face value the historical and ethnographic claims that scholars make about particular accounts of cosmogony and recognizing that such scholarship, in so far as it participates in cosmogony-making and debating, proceeds via essentialism as polemical technique. This option is particularly interesting, furthermore, because the present state of the study of cosmogony may afford special insight into the ways in which new findings or situations – such as the results of the LHC experiments at CERN or evidence of climate change – can motivate people to exchange one model of cosmogony for another or revise how they understand an existing one.

On the other hand, we may also seek to complexify the historical and ethnographic study of cosmogony by attending more closely to the debated and dialogic nature of cosmogonic accounts in particular contexts and histories. This involves resisting the temptation to side-line minority or “heterodox” models of cosmogony as anomalous and inconsequential and recognizing that alternative and suppressed models find practical and concrete expressions. With respect to non-Western contexts and histories, this could mean, among other things, allowing for the possibility of cosmogonic models that suggest non-Cartesian pluralisms (e.g., Puett 2002; Scott 2007; 2014). With respect to the West, it would recommend considerations of non-biblical accounts of cosmogony that have co-existed with and informed biblical interpretation – such as Platonic and Neoplatonic models – and their ongoing transformations.¹² Furthermore, in light of Viveiros de Castro’s Deleuzian analysis of Amazonian cosmogony – and as he himself seems to hint (2007: 164) – it might also include asking whether these non-biblical accounts all imply monism, or whether there have ever been (pre-Deleuzian) indigenous Western nondualisms. Have there, in fact, been

nondualist readings of biblical cosmogony and ontology that have escaped anthropological attention (cf. Scott 2015)?

It turns out, however, that such efforts to complexify and add nuance to the study of cosmogony are not so easy to disambiguate from the debates of cosmogony-making. The approaches to the study of cosmogony I have just urged upon anthropologists correlate in many respects with those taken by apologists, reformers, and innovators when they seek to defend, amend, or reconfigure biblical religion in response to the many now pervasive critiques of biblical cosmogony and monotheism.

Some thinkers attempt, for example, to reaffirm the creator/creation distinction by arguing that more good can flow from it than from any turn to models of cosmogony that imply universal continuity of being; if properly understood, they argue, the creator/creation distinction provides the best ontological ground for creature-to-creature openness and self-giving (e.g., Williams 2000: 63-78). Others accept and add to critiques of dualistic understandings of biblical cosmogony, but in so doing they also implicate accounts of cosmogony from the ancient Near East and Greece as having contributed to a Western logic of domination (e.g., Bauman 2009: 12-32; Ruether 1993: 15-31). They then excavate resources from within the history of biblical religion for recovering and/or innovating alternative readings of biblical texts. This can take the form of drawing on esoteric material such as Jewish Kabbala (e.g., Moltmann 1993), or exchanging the normative doctrine of *creatio ex nihilo* (creation out of nothing) for versions of “a post-foundational, relational understanding of *creatio continua* [continuous creation]” (Bauman 2009: 171). Some theological projects are even remarkably consonant with perspectival anthropology, appealing to the philosophy of Deleuze to radically rethink God as multiplicity (e.g., Schneider 2008). Complexification can, in sum, be as polemical a technique as essentialism.

Add, therefore, a sixth thing we know about cosmogony: the study of cosmogony is a register of cosmogony-making; in the genres of scholarship and critical thought, it carries on and thus lends itself to the formulating and debating of competing models of cosmogony and the habits of thought and action they are said to foster.

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¹ For indications of some of the other safety concerns raised, see, for example, CERN's official responses (cern.ch n.d.b) and the website of Wagner's Citizen's Against the Large Hadron Collider (lhcddefense.org n.d.).

² Examples of studies that have proposed or built critically on this claim about cosmogony include Eliade 1967; Lincoln 1986; Puett 2002; Sahlins 1985; Schrempp 1992; Scott 2007; Viveiros de Castro 1992.

³ According to the influential but controversial theorist of cosmogony, Mircea Eliade, *all* myth is cosmogonic myth, dealing precisely with this mode of primordality he famously dubbed *illo tempore*, “that time”. See, Eliade (1963: 5-6) and compare Eduardo Viveiros de Castro’s Deleuzian update (2007: 157).

⁴ On this point, see for example, Eliade 1959; Lovin and Reynolds 1985; Malinowski 1948: 93-148; Sahlins 1985; Schrempp 1992; Scott 2007.

⁵ For articulations and illustrations of this basic principle, developed in analytical relation to diverse ancient and contemporary examples, see the essays in Lovin and Reynolds, eds. 1985; Puett 2002; Schrempp 1992; Scott 2005; Valeri 2014.

⁶ See, for example, the analyses in McDonald 2001: 76-97; Scott 2007: 261-324; Smith 1982: 66-89.

⁷ See, for example, the literature produced by Reasons to Believe (reasons.org. n.d.) and the Qur’an Project (quran.project.org. n.d.).

⁸ On the evidence for these polemical dynamics in the formation of Genesis 1:1-2:3, see Levenson 1988.

⁹ For a discussion of monistic interpretations of cosmogonic models such as the separation of sky and earth, the cosmic egg, the primordial androgyne, the dismemberment of the primordial man, etc., see Valeri 2014.

¹⁰ Here the insisted upon distinction between monism and infinite fractal multiplicity arguably becomes elusive, not simply because refusal to choose between monism and pluralism looks like “half-hearted monism” (Harman 2011: 9), but because fractality suggests *the same* infinite intensive difference at every scale, rendering differentiation both endless and impossible. The virtual can be difficult to distinguish from underlying identity of being.

¹¹ Such claims that perspectival anthropology and other methodological turns to nondualism truly dethrone scientific epistemology in this way demand critical scrutiny beyond the scope of this essay. I would argue, in fact, that most of the anthropological theorizations of nondualism I have cited in this article are informed by, and indeed made possible by, dialogue with the physical sciences. Many appeal directly to models from such fields as developmental biology, biosemiotics, and fractal theory; others do so indirectly whenever they appeal to Deleuze, who aspired to develop a philosophical ontology that was accountable to science. Some suggest that relational nondualism is vindicated by science (e.g., Viveiros de Castro 2012: 153).

¹² Examples of this already exist in anthropology, of course. Although Viveiros de Castro cites Sahlins’s influential article, “The Sadness of Sweetness” (1996), in support of his suggestion that monotheism is the root of Western essentialism, Sahlins acknowledges that, in that essay, “insufficient attention has been paid to alternative traditions” (1996: 395). More recently he has widened the net of his analysis to capture the ways in which models of

cosmogony from ancient Greece still inform Euro-American assumptions about “human nature” and even US military strategies (Sahlins 2008). Similarly, Philippe Descola, in his account of the history of Western “naturalism” (his term for modern dualism) considers the role of ancient Greek as well as biblical models of cosmogony and argues that the “cosmogenesis of modernity” is “a complex process in which many factors are inextricably intermingled” (2013: 63, 68).