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On the New and the Novel: An Adventure in the Temporal Logics

Abstract:

This paper is an adventure of ideas. More specifically, it is a continuation of the adventure of ideas concerning the relations between creativity and logic at the level of being one finds in the work of Whitehead and his interpreters/inheritors. The “argument” of the paper, such as it is, is that ontological creativity may be fruitfully described by two logical functions, one exploding the movement from possibility to actuality, and the other from actuality to possibility. The paper explores both functions, or “senses,” as fruitful ways of understanding ontological creativity, especially within processual (Whiteheadian and Bergsonian) thought. The two senses of creativity, the paper also argues, ought to be understood as primitive and inexorably “together.”

Keywords:

creativity, logic, time, process, Whitehead

Introduction

The purpose of this paper is to take readers on a speculative adventure¹ of ideas toward a greater understanding of the relations among time, creativity, and logic (*logos*). Arguments for the primordially of time itself as a philosophical – and therefore personal, scientific, and cultural – existential is well-worn, if somewhat contested

1) In a Whiteheadian sense.

conceptual territory. Logic – in all manifestations, from the broadest to the narrowest – and creativity, however, are often *not* treated as primordial existentials. Nonetheless, where one finds any other primordial concepts – being, time, self, experience and so forth – one inevitably finds *logos*. The very finding, identifying, or demarking of such concepts as those previously named is necessarily *logos*. What, though, of creativity? For the purposes of the current speculative adventure, one ought to hold the compresence of *logos* and creativity as a postulate – where one engages in logic, one is, by this postulate, engaged in a creative endeavor.² This postulate also entails that where one encounters creativity – if it is encountered as *meaningful* creativity³ – one encounters *logos* of *at least* a thin, minimal sort. More likely, one encounters a near-complete invocation of *logos*.⁴

In philosophy *logos*, as topic, is well-worn ground. Creativity, the dense thicket of brambles and metaphor though it may be, has also attracted millennia of scholarship. But, if one must pick between the two, *logos* is more familiar to theorists of all stripes – including philosophers. This holds even for theorists of creativity, for *qua* theorist, their *muttersprache* is *logos*. Therefore, the following paper is an adventure in the logics of creativity rather than a creative advance into logic. Nonetheless, these two existentials – logic and creativity – are so intimately related that one could reorder the two terms and perhaps lose nothing save a smidge of conceptual elegance. This adventure follows, or even continues, the adventures of Heraclitus, Plato, Bergson, Whitehead, Judith A. Jones, Randall E. Auxier, and Gary L. Herstein.⁵

2) This postulate follows Auxier and Herstein’s reading of Whitehead, as expressed in *The Quantum of Explanation*: “With Whitehead, we think there is a mode of consciousness that allows us to distinguish among constellations of possibilities *qua* possible, and it is the same mode of consciousness we use to separate might-have-beens from past actuality. This is another way of saying that memory and imagination are really the same function in consciousness. What differs is our temporal orientation and awareness of this function – what we take ourselves to be doing in forming a generic contrast between these two illustrative temporal moments. When we seek to distinguish potencies from one another on the basis of an imagined actuality that is not yet, we do so by imagining what will be negatively prehended and what will be positively prehended by our future selves. When we seek to sort out ordered constellations of might-have-beens on the basis of past actuality, we imagine first a future that never was or will be, and then ask what we would have positively prehended in that imagined future and what would have been negatively prehended. We then construct plausible stories to support one set of might-have-beens over others.” See Auxier and Herstein, *The Quantum of Explanation*, 257. If “forming generic contrast” is not an instance of active, creative *logos* at a given moment of being-in-time, I cannot imagine what would be such an instance of *logos*.

3) And I dare not speculate about any other type of *non-meaningful* creativity for fear of falling into a trap of dramatic, perhaps fatal instability or nonsense.

4) “Before we can determine the being-status of particular things as they appear to us, we necessarily invoke the laws governing our cognition – governing and setting the conditions of the possibility of a thing to be, to be present, to come into being within our experiential realm. We necessarily invoke these cognitional laws in any cognition whether or not we are aware of them or of our utilization of them.” See Sherover, *From Kant and Royce to Heidegger*, 127.

5) Just as this paper constitutes an adventure in ideas, it also comes about as part of an intellectual, philosophical genealogy. The grand genealogy of this paper extends at least as far back as Heraclitus and Plato and finds more recent expression in the thought of Bergson and Whitehead. The contemporary philosophers whose work informs this adventure are Randall E. Auxier, Gary L. Herstein, and Judith A. Jones. Just as I imagine Bergson and Whitehead would accept me placing them in an intellectual genealogy alongside Heraclitus and Plato, I am confident Auxier, Herstein, and Jones would not object to being named heirs of the adventures propelled by Bergson and Whitehead. I see this paper as continuing one portion of the adventure on which these seven philosophers (and hundreds of others churning below the paper’s text) find themselves. Some may see this paper’s discussion as a commentary on Auxier, Herstein, and Jones – this is not inaccurate, but to describe this paper as *merely* commentary misses the fact of the genealogical creative impulse that propels the adventure(s) of ideas which make up philosophy. In more twenty-first century terms, this paper aims to “keep the improv sketch going” by commenting on previous philosophers’ work with an enthusiastic “yes...and...” To the extent that this paper differs from Auxier and Herstein’s analysis on process creativity (Whitehead in particular), and Jones’ analysis of creativity within processual intensity, such differences are ones of emphasis and degree, rather than contrariety or outright contradiction. What I want to bring into the spotlight of this paper are ideas that might otherwise get outshone by the fruitfulness of the named philosophers’ other, more well-known ideas.

One wonders, though, if the terms “logic” (*logos*) and “creativity” are univocal, multivocal, equivocal, or troublingly vague. As to the last of these four possibilities – vagueness – I cannot write. If the following speculation will be meaningful, I doubt that the terms are terminally, or even problematically, vague. Were they so, this paper would be unintelligible. I do not think it is so. Of the other three terminological descriptions for both “logic” and “creativity,” one might well address them in one effort. It seems that creative occasions might have a range of both newness and novelty – that is, they might be some combination of thickly or thinly novel and thickly or thinly new. The first instance of a stone arch, for instance, was both thickly new and thickly novel, whereas the most recent construction of a stone arch for a purely structural purpose (and not as a component of a grander, novel construction) might be both thinly new and thinly novel. The latter case is not without creativity – it is, in a Whiteheadian sense, felt by topologically-near actual entities – but the former instance is one that is felt across history. The contrast, then, between newness and novelty is one of the coordinated “felt-ness” of the event. Newness is coordinated (felt, in a Whiteheadian sense) as a local part of the cosmic epoch and then through the cosmic epoch as mediated by loci of feelings. Novelty, contrariwise, is felt immediately as an instance of self-creativity, both of a given event and of the cosmic epoch itself manifesting its whole creativity through a given part (event). The stone arch supporting the railroad near my home, then, is felt by persons around the globe only as mediated through the meandering relations of various actual occasions. The very first stone arch, though, is felt as its own self-creation immediately (as well as mediately via its own newness).⁶ Combinations of variations of thick and thin newness and novelty abound, and indeed, there is no pure limit to the number of variations thereof. Novelty is, to put it in new (to this paper) Whiteheadian terms, the culmination of potency⁷ in an actual occasion. This leads one to conclude that “logic” and “creativity” are equivocal or multivocal across contexts, but as pure concepts, they are univocal, albeit with bountiful instantiations and manifestations.

1) Creativity and Time

Creativity, and by association, logics of creativity, has and have, two senses when temporalized – for example, when creativity is operative *in and through time*. The first is the (seemingly) spontaneous formulation of the temporal-sequentially *new*⁸ and ontologically *novel*. This first sense of creativity is, in different words, radical *openness to being qua possibility*: to borrow a thought from Heidegger, it is abiding in and with-in being.⁹ This

6) Perhaps thinking in non-processual terms may help some readers with the contrast between newness and novelty. Consider the counterfactual world in which the particular stone arch under the railroad tracks near my home had not been built. Due to prudent engineering redundancy, not even the railroad grade would collapse in such a world, and the experiences of persons around the globe in that world would be as identical to those of persons in our actual world as identity across possible worlds can possibly be. Contrariwise, the possible world in which the very first stone arch was never created – and which, accordingly, contains *no* stone arches – seems uncanny, or even alien, to persons from our actual world. The immediate lack of the very first stone arch reveals the novelty of the very first stone arch.

7) Auxier and Herstein, referencing *Process and Reality* on potency: “Indeed, it is this ‘potency’ (a term we use guardedly for its common root with ‘potential’) that makes each metaphysical atom a ‘system of all things.’ Whitehead characterizes the meaning of potentiality in the sixth Category of Explanation as ‘indetermination rendered determinate in the real concrescence.’ The indetermination is rendered determinate because while ‘each entity in the universe ... *can* ... be implicated in that concrescence in one or other of many modes ... in *fact* it is implicated only in *one* mode.’ It is quite determinately *one* mode, and not merely ‘possibly one’ mode. The entire universe is expressing itself in some determinate manner in each concrescence. That expression – which is to say, its prehension by the concrescing entity – might be negligible or even negative. But it will be that determinate *one* way which contributes its mode of potency to the systematic totality of *that* concrescence.” Auxier and Herstein, *The Quantum of Explanation*, 76.

8) In other words, numeric individuation within an extended, or better, *extensive*, time-sequence.

9) Heidegger, *On the Way to Language*, 13. Whitehead uses the word “abide” in an eerily similar sense.

abiding is (an) openness, accordingly, to the past, present, and future as aspects of a flux, or omnidirectional *dynamis*, of temporality itself. This first sense is the process of creation from possible to actual, a creativity of spontaneity in that it *opens itself to the spontaneous ingression of the possible into the actual*. One sees it in Bergson's creative impulse, improvisational arts, and the moments of clarity one has while taking a shower. This creativity is present in both the act of interpretation, as well as, more frequently, the act of *expression*. As it relates to the current investigation, the first characterization of creativity conditions, but is not a ground of, a radically historicist interpretation of previous interpretations in temporally new (e.g., numerically distinct) and ontologically novel (e.g., qualitatively distinct and self-assertoric) ways.¹⁰ The second sense of creativity is responsiveness to the past *as it effects the present*. It is also a ground of a living, historicist¹¹ logic. This second sense also describes the new and the novel, but as the process of creation from actual to possible. One might call this "creativity of response," and it is the creativity of genealogical progression.¹²

For both senses, the past, including past interpretations, is effectually present in continuity through time. Both senses, as well, ground the new and ground the novel upon the tensive interplay between actual and possible. The two senses are con-intensive. They share not only logico-grammatical extension, but more importantly, make up the whole of the intension of creativity. Teasing out the dynamics of the co-intension is the perpetual, self-driving project of a logic of creativity – one that will not be finished with this paper, because it is a never-ending adventure, a never-ending project.

As for the second sense of creativity, one should avoid interpretations that confuse the new with the novel. Neither "new" nor "novel" are deterministic, but neither necessitates a radical, pernicious auto-destruction of temporal continuities.¹³ The new is distinct in the abstract – one fixes it via difference in the reified, artificially point-extension coordination of analytic space and time. The novel, inverting James' definition,¹⁴ is that which assimilates into and gratifies the individual's desire for truth – truth in a mildly honorific sense. It is the "lightbulb moment" of genuine learning, the "A-ha!" of discovery, and the deep recollection of Platonic discovery (*Meno*).

Given that I take creativity, in all its senses, as co-primordial with being and time – an assertion for which I will not argue here, but one I take to be a basic, if perhaps controversial, position in much process philosophy – I reject simplistic, over-reduced determinism.¹⁵ This rejection not only grounds the distinction between the new and the novel but *requires* it. Additionally, insofar as brute determinism, especially in an iterative description of a genealogies of interpretation, is *prima facie* untenable, there surely exists effective¹⁶ creativity (both

10) *Wege*, in a Heideggerian sense.

11) The sense of the term "historicist" will soon become clear. Nonetheless, it is worth noting that I do not mean it in a Rortyan, Marxist, or radically reductive-deterministic sense.

12) Including that of this paper, as described in an earlier note.

13) I use the term "continuities" rather than "continuity" because I hold the position that, when considering time, one is faced with a panoply of temporal continuities composed of any number of temporal things (the term gluttonously includes objects, events, and, most notably, processes) bound, or articulated, with one another through *real* logical relations (notably conjunction and disjunction, but also others). One might be forgiven for taking the continuities as "timelines" in a science-fiction sense. That description, however, would be a mistake. These continuities overlap and move at angles from one another based on the articulated real (logical) relations among temporal things.

14) James: "A new opinion counts as 'true' just in proportion as it gratifies the individual's desire to assimilate the novel in his experience to his beliefs in stock." James, *Pragmatism*, 32.

15) More sophisticated forms of determinism may require more sophisticated responses. Those are debates for another investigation.

16) Begetting effects, rather than a normative judgment of a given instance of creativity.

senses) in genealogical continuity.¹⁷ This creativity allows interpreters to work within a genealogy of knowledge (a patina of meaning and account that coats most¹⁸ continuities) without doing violence to knowledge's continuity and growth. This is precisely the aspect of "creative power" Royce describes as working "under conditions," and in so working, being "finite."¹⁹

The two senses of creativity influence each other reciprocally. The creativity of response (actual to possible, the second sense) grafts the new and novel onto a *lived* time while denying the new and the novel to effectuate dissolution of the significance of already meaningful time – symbiosis rather than parasitism. Though he was not describing temporalized creativity as such, Royce's temporalist project includes an apt description of this phenomenon and deserves to be quoted. He writes: "The present is assimilated to the past; the new is made to seem as familiar as possible. This reaction of the mind upon new impressions is easily seen in our thoughts and words in the first moment of great surprise or fright."²⁰ Surprise or fright – indeed *all creation* – are not pernicious to life. Instead, they fit themselves into, or upon, the familiar without dissolving. Charles M. Sherover gives word to Roycean concept, writing "For any perceptual moment only has meaning as it is conceived to *tie* what is not literally present – past and future – together any experiential present then includes ties beyond itself and is, we might note, like any idea in that it points beyond itself to its Other for its meaning."²¹ Accompanying this process, the creativity of (superficially) spontaneous assertion and expression (possibility to actuality, the first sense) pulls or pushes – sometimes forcefully and painfully – already meaningful time toward life.²² Creativity of response fixes the new and novel with an account,²³ or an *accounting*, coherent with the world,²⁴ and creativity of spontaneity acts as a gadfly, spurring logics of time to be more than mere dates in a calendar or ticks of a clock. The tension between spontaneity and response, as well as the relationship between the new and the novel in both senses, constitutes the whole logic – *logos* – of any creativity in/of time. By philosophizing the *whole logos* of creativity – the norms of possible creative thought ("logic proper") or the unifying, harmonizing account of a given cosmic epoch (a traditional conception of *logos*)²⁵ – I take the following sections to be radically empirical but not necessarily pragmatic (or pragmatistic).²⁶

17) Thus, even when a paper, like the present paper, is read as a "mere commentary" in a pejorative sense, the creative advance is propelled, and the adventure continues.

18) I see no plausible temporal continuity that could not, at least in abstraction, ground and carry a corresponding genealogical continuity of "knowledge." Nonetheless, temporal continuity does not strictly necessitate a corresponding genealogy of knowledge. A description of a temporal continuity that logically precludes knowledge would be an interesting exploratory piece of speculative logic and metaphysics.

19) Royce, *The Religious Aspect of Philosophy*, 274.

20) *Ibid.*, 320.

21) Sherover, *From Kant and Royce to Heidegger*, 102.

22) "Life" in a Bergsonian sense.

23) In the same sense as Plato's *Meno*.

24) In this way, it renders "the created" knowable through the account in the way an account fixes right opinion in Plato's *Meno*.

25) A full treatment of the relationship between the typical, traditional conception of "*logos*" and the traditional, typical conception of "logic" would be the work of an entirely new paper, and is therefore beyond the available scope of the current essay.

26) The distinction I draw between the two concepts – pragmatism and radical empiricism – especially as it pertains to the heavily Whiteheadian flavor of this essay, borrows heavily from the thought of Auxier and Herstein. They write: "Whitehead was a radical empiricist, following William James, Henri Bergson and John Dewey. One can be a radical empiricist without being a pragmatist, as we will explain. However, good pragmatists tend toward radical empiricism because one of the keys to pragmatism is its commitment to philosophizing all of experience and only experience. Yet, if pragmatism has an Achilles heel, it is in assuming that possible experience need not be robustly philosophized. Radical empiricists who do not profess pragmatism, such as Whitehead and Bergson, will tend to give possible experience greater weight than do their pragmatist counterparts." Auxier and Herstein, *The Quantum of Explanation*, 39.

2) Creativity, the New, and the Novel in an Already Living World

Each new *meaning*²⁷ carries with it an ontologico-historical path and continuity. This ontology conditions the *novelty* of new meaning by giving it unique *historical weight and quality*. One ought to consider, prior to parsing the justification²⁸ for the ontologico-historical logic (of meaning), the manner in which persons engage with the world. A *complete* description of personal engagement with the world through meaning is likely impossible. The likely-impossibility of complete description arises because personal engagement with the world is made of, and conditioned by, a dizzying nexus, or even a continuum, of data, (re)interpretation, language, and epistemic factors – each constituent domain influencing the others.²⁹ Historically minded logicians are obliged to reckon with any and all of these constituencies, while recognizing the unavoidable limits of any one region of inquiry. To trace temporal logics, whether actual-to possible or possible to actual, one must place oneself, in a genealogy. One must resign oneself to immanence and disavow the hegemony of the fictional “view from nowhere.”

The premise that persons must reckon with the manner in which their forebears engaged with the world – in other words, the genealogy of conscious meaning – has (at least) two distinct yet complementary lines of justification. Both lines influence interpretation and contribute to the progression of creative logics. This progression is newness-as-numeric-individuation coupled with novelty-as-abiding-openness. The novel is intimately related to the new, but such a relation is not without tension. The novel is not always new, and the new is not always novel. Creativity, though, is always both – creativity the tension between *explodes* new and novel. This *ex-plosion* is precisely the reason that creativity proper – in both senses detailed above – is frequently found in intractable or incommensurable problems. Events of mere newness can often be the obvious solution to a problem, and pure, uncut novelty – though responding to a problem – does not bring the problem to culmination and completion.³⁰ Only creative response to the problem itself (the actual) through the possible – or the ingression of the possible into the actual – engenders the kind of “creative solutions” so ubiquitous in a logo-creative world (our world, the world of culture and persons) that one often simply refers to “a creative solution” as a *faux-atomic*³¹ event. *Interpretation and logos, then, are the creative act(s) of reunifying the explosive moment of onto-logical temporalized creativity.*

The first line of justification for the claim that historical interpreters must reckon with the manner of their forebears’ engagement with the world is that there is a radical historicity in *any* interpretive endeavor, even when the interpreters eschew purposeful, methodological historicity.³² If that interpretive endeavor has a logic (as it must), then such logic is an inseparable accompaniment of the interpretive endeavor. In other words, if one’s forebears were doing anything one might understand, such activity was done in accordance with a *logos* (or *logoi*). Each subsequent generation takes its place, and corresponding perspective, in a succession of a logico-historical hike. Each perspective is itself a new mode of receptivity including vocabularies and meaning-schemata (the “actual” as described in previous paragraphs) of other

27) However, one wants to artificially and abusively divide meaning into “bits” or units.

28) I use “justification” as an instrument in service of my argument, and nothing more. I leave discussion of justification as a proper topic to others.

29) Royce makes a similar claim in *Lectures on Modern Idealism*. Royce, *Lectures on Modern Idealism*, 244.

30) This is the difference between a merely engineered solution and a truly creative solution.

31) An event – or thing – indivisible and self-supporting.

32) Again, this essay is no different, insofar as it takes a place in the same historical progression of newness and novelty from Heraclitus, through Bergson and Whitehead, to Auxier, Herstein, and Jones.

individuals/groups.³³ As Bergson writes, in application of this pervasive tension, “every sensation is altered by repetition, and that if it does not seem to me to change from day to day, it is because I perceive it through the object which is its cause, through the word which translates it.”³⁴ In applying language, as an instance of *logos*, to object, language *becomes* object in turn, and the circle is re-newed. In all cases, however, the ontogenic accumulation of interpretive perspectives responding to the continuum of engagement of previous perspectives generates some modicum of novelty (as previously mentioned). Without presuming a “view from nowhere,” one nonetheless conjoins disparate temporal spans, events, or entities in the course of possibilization.

The above account is one of creativity moving from actual to possible – *unifying the possible through the lived* (known and given) *actual*. Auxier and Herstein note that Whitehead (and Cassirer) treat such possibility as primitive when it comes to knowing:

Where one assumes only possible relations between reality and knowing, and places necessity strictly within the internal operations of knowing, reality becomes a contingent process, an inexhaustible resource for our symbolic appropriations. On this point Cassirer and Whitehead agree, and in no way does this restriction upon the reach of science reduce its authority. The move to treating possibility as the fundamental modal category in metaphysics simply allows us to situate scientific knowing historically and empirically, and to account for the growth and alterations in our scientific claims. In short, if science wants to know nature, it has to approach nature as a growing, contingent, and dynamic system. That is a stiff demand to make upon static, categorical thinking.³⁵

Treating science in this manner, as it currently stands, is a “stiff demand.” But science, especially taken *as logos*, I intimate, is one particularly powerful instance of possibilization. Treating it as either technological, in the sense of Larry Hickman’s reading of Dewey,³⁶ or purely hypothetical in the manner of most “idealisms,” ameliorates the concerns presented by the stiff demand. One hypothesizes, then, disparate temporal spans precisely to ground any temporal creative logic (i.e., the “possible to actual,” which covers the “problem” of externality) in a robust *dynamis* rather than a desiccated determinism.

A second justification for the claim that historical interpreters must reckon with the manner of their forebears’ engagement with the world concerns the mereological unity of the world *qua* world. Logics of time cannot abide *absolute* discontinuity – radical, absolute discontinuity disallows one to *dwell* in any sense of the term, and is anathema to both composite possibility *and* composite actuality. *The world may be a mess, but it is still a world and not a mere heap*. Additionally, this line of justification speaks to the openness and intimate connection that present (*zuhanden*) meaning has relative to non-present (past and future-as-about-to-become-past) novelty – the kind of novelty grounded upon possibility. Auxier and Herstein detail a trilemma regarding the relationship between possibility and being:

33) One must, of course, allow that in many, if not most, cases, new perspectives are minimally different from those before them – perhaps differentiated by little more than the division of generations as a form of social numeric individuation. Indeed, this is the case for even auto-repetitive instances of experience and propagation. “Pure repetition” in a Bergsonian sense. Other examples of this creative tension abound. In rarer cases, however, there is a radical reformulation of the interpretive perspective itself. The latter cases are more interesting, and possibly more useful for the progression of meaning, than those new perspectives whose differentiation from previous perspectives is minimal. Paradigm shifts and escape from mere iterative amalgamation – in such realms as science, religion, or art – are instances of the ontologically novel creation of meaning.

34) Bergson, *Time and Free Will*, 131.

35) Auxier and Herstein, *The Quantum of Explanation*, 29.

36) Hickman, *John Dewey’s Pragmatic Technology*.

Our access to the structure of possibility is usually mediated by our powers of abstracting from the concrete in ways that respect the limitations imposed upon us, and our desire for explanations, by the actual. We face a trilemma: either (1) deny the reality or existence of possibility, or (2) reduce possibility to the likely or the inevitable, and then try to get our most general concepts to serve as explanations, or (3) treat the mode of existence of the possible as essentially abstract. All of these ways of handling the problem of possibility have been tried in the history of metaphysics. None has succeeded.³⁷

Among the key insights of *The Quantum of Explanation* is that Whitehead offers a fourth, viable alternative to this trilemma. Auxier and Herstein write, “Whitehead suggested a fourth way, a way that leaves the relation of the possible and the actual fruitful, creative, dynamic, interesting, and open: the actual, in its full concrete uniqueness, is the explanation of anything and everything that can be explained. The actual offers us a glimpse of the possible, its structure and its meaning, if not all of its determinations.”³⁸ Following Whitehead, novelty is felt presently (for the actual entity), but is not *meant* as novel until assertoric interpretation is given over to a logic in/of dynamic (i.e., possibilized) time. Auxier and Herstein’s thesis from *The Quantum of Explanation* deserves to be quoted at length:

Our central idea is that concrete existence explains the abstract aspects of experience and not vice-versa. The unexpected characteristic of our experience is that it abstracts from the flux, not that it flows concretely, which we expect. This sense of the term “abstract” means something like, “creates a stable space,” but spaces are created by variability in the flux itself. No space is wholly stable, as far as we know.³⁹

Though Auxier and Herstein are not describing particular events of creativity (as does the current paper), the creative *logos* nonetheless holds. The event – “concrete existence” – grounds not only its own *logos*, but the self-perpetuating, self-assertoric *logos* of creation.

This second line of justification is, perhaps, intuitively contrary to the first. In addition to the radically dynamic historicist and ontogenic interpretation of previous interpretations of meaning – themselves part of the continuum of time itself – one finds concrete continuity. The concreteness of historical sequence and stability of context is reckoned with anew by successive interpreters as an ontogenic unity. As dwellers⁴⁰ within the same world, each interpreter may trace the genealogy of their notions. Each successive generation of interpreters stands on the shoulders, as it were, of those before them, and the grand history of meaning could be traced by a terminally, general interpreter to the first instance of whatever one wishes to name “meaning.”⁴¹

37) Auxier and Herstein, *The Quantum of Explanation*, 5.

38) Ibid.

39) Ibid., 2.

40) “Members” would also be an accurate term because it bespeaks a part-whole relationship. This follows broadly, both Nietzsche and Heidegger.

41) A base history of objectification – and the creativity involved in such objectification – could also be so traced. The emphasis on “object,” however, should not be overdone – the genetic account within the coordinate account is what matters for a *logos* of temporalized creativity. See: “The mediate objectifications will be transmitted through various routes of successive immediate objectifications. Thus the notion of continuous transmission in science must be replaced by the notion of immediate transmission through a route of successive quanta of extensiveness. These quanta of extensiveness are the basic regions of successive contiguous occasions.” Whitehead, *Process and Reality*, 305.

Whereas previous paragraphs described openness to novelty through possibility, the continuity between past, present, and future influences, in a strong sense, the ontogenic growth of the whole⁴² of meaning by ensuring that such growth, despite more radical and dynamic (re)interpretation, *is the same actual image* of the same *actual world* within which we all dwell.⁴³

3) Process and Creative Logic(s)

Whitehead is, of course, a process philosopher, and, as such, is often grouped with other philosophers who speak of “becoming” as primordial to (or equiprimordial with) “being.” Whitehead’s notion of “becoming” is, accordingly, key to understanding his thoughts on time, and thereby illuminating a creative logic of and within time. He writes:

There is a prevalent misconception that “becoming” involves the notion of a unique seriality for its advance into novelty. This is the classic notion of “time,” which philosophy took over from common sense. Mankind made an unfortunate generalization from its experience of enduring objects. Recently physical science has abandoned this notion. Accordingly we should now purge cosmology of a point of view which it ought never to have adopted as an ultimate metaphysical principle ... the term “creative advance” is not to be construed in the sense of a uniquely serial advance.⁴⁴

Gary L. Herstein describes this as a “multi-threaded” notion of time, one in which “one family of durations intersects another (and) lays down in the other family’s instantaneous spaces systems of parallels.”⁴⁵ He continues, “Every time’s space is densely criss-crossed by such parallel tracks from the indefinite number of alternative time systems which interests it.”⁴⁶ The apparent “radical temporal discontinuity” of this account of time, however, is phenomenologically difficult for (most) human persons to grasp. But the inverse of the problem – that of continuity – presents similar difficulties. Instead of framing the problem of non-linear time as one of continuity/discontinuity, one ought to, following Auxier and Herstein, treat it as a problem of atomicity.⁴⁷ Once one releases one’s hold on atomic notions, replacing it with a consideration of time as a (the) weave of threads of duration – following Herstein’s reading of Whitehead – the problem of ontological atomicity⁴⁸ is resolved, and one is accordingly free to reject a reduction of linear-atomic time. The rejection of reductive

42) See also Auxier and Herstein, *The Quantum of Explanation*, 287.

43) Again, I use the term “image” because there are few better terms that capture the wholeness and vital nature of human knowledge. This should not be confused, however, with a picture-theory or correspondence theory of truth and knowledge.

44) Whitehead, *Process and Reality*, 35.

45) Herstein, *Whitehead and the Measurement Problem of Cosmology*, 141. The word “parallels” is more specific to Herstein’s project. Given the topic at hand, I would replace it with the term “tension.”

46) *Ibid.*, 141. “Tensive tracks,” in my preferred language.

47) Auxier and Herstein, *The Quantum of Explanation*, 45.

48) This is different, however, from the inescapable *explanatory fact* of atomicity. Explanatory atomicity grounds Whitehead’s radical empiricism in the same manner as particular experience grounds James’ radical empiricism. For more on this distinction, and its role in Whitehead’s philosophy, see Auxier and Herstein, *The Quantum of Explanation*, 46.

linear-atomic time (“uniquely serial advance”), and therefore the *rejection of brute determinism of a progression of mere newness*, is clear.⁴⁹

Non-linear, processual time accounts for two senses of creativity-as-potentiality – possibility and actuality reciprocally grounded upon one another. Actuality, in this sense and as Charles Hartshorne writes, is “a subject *about to become object* for subsequent subjects.”⁵⁰ Though Hartshorne’s language of subjectivity and objectivity is regrettable, one can revise the statement to emphasize the Whiteheadian actual entity. Such a revised statement would read “actuality is a concrescence that is prehended by other actual entities – by other concrescences.” The need for such revision is why a Whiteheadian, or even Bergsonian, ontology is clearly preferable.⁵¹ That written, methodologically prior to such prehension, one must describe potentiality. One requires a robust notion of potentiality to move beyond the narrow concept of time as a linear sequence of “nows.” Auxier and Herstein describe time as “a contingent specification of extension.” But, they note immediately thereafter, that “extension is not ‘space’.”⁵² Auxier and Herstein may well have written that “extension is not *primarily*, or *primitively*, space,” for, as Whitehead himself writes: “extension, apart from its spatialization and temporalization, is that general scheme of relationships providing the capacity that many objects can be welded into the *real unity* of one experience.”⁵³

In the *Principle of Relativity* Whitehead writes “The homogeneity of time with space arises from their common share in the *more fundamental* quality of extension which is a quality belonging exclusively to events. By extension I mean that quality in virtue of which one event may be part of another or two events may have a common part.”⁵⁴ Clearly, Whitehead’s extension *is not* the extension frequently described, in various ways, as pernicious to the intensive, primordial temporality grounding all temporal things – allowing one to see such temporality as grounding creativity in time while also accepting a Whiteheadian sense of extension. Whitehead’s extension begins and ends with *events* – “temporal things,” in any reasonable sense of the term. Whitehead’s time, then, though extensive, *is not* the same as extensivised vulgar “clock time.” Space-time – the quasi-Cartesian notion of a four-dimensional volume, is rather *abstracted from* events, not vice-versa.⁵⁵ The event – the temporal thing – is primitive, and primitive *within nature* (rather than merely within adventures of speculative philosophy). When one takes the event as primitive, the two senses of creativity change from speculative *logos* to concrete, ubiquitous, and temporally dynamic aspects ready for philosophical description.

The *intension*, however, of the ingression of an eternal object, or collections of eternal objects, “within”⁵⁶ an event remains speculative.⁵⁷ A novel event, though, is a good clue that novel ingression of eternal object(s) is

49) Though Einsteinian or relativistic notions of time may not be linear in a common-sense manner, they are nonetheless deficient. In his critique of General Relativity, Herstein offers an additional problem – one closely associated with the “multi-threaded” aspect of Whitehead’s time. Of the intersections of times, Herstein writes “and it is these intersections which structure the locally defined spaces of any particular time system, giving them the requisite uniformities that make measurement possible.” But these localities are not, he notes “free standing.” Accordingly, one should look to systems of time that are neither “free standing” nor monometric (such as General Relativity). Auxier and Herstein, *The Quantum of Explanation*, 137–38. A Whiteheadian concept of time never requires a concept of non-locality.

50) Hartshorne, “Whitehead’s Metaphysics,” 29.

51) “In contrast to Hartshorne, Bergson is not committed to the recoverability or continued existence of these subjective experiences, except insofar as they affect the configuration of action in the present.” Auxier and Herstein, *The Quantum of Explanation*, 275.

52) Auxier and Herstein, *The Quantum of Explanation*, 129.

53) Whitehead, *Process and Reality*, 67. My emphasis.

54) Whitehead, *The Principle of Relativity with Applications to Physical Science*, 67. My emphasis.

55) *Ibid.*, 29.

56) To use a problematically spatial term.

57) Auxier and Herstein, *The Quantum of Explanation*, 173.

occurring as an aspect of events' intension. When one takes a non-linear view of the event – eschewing “earlier” and “later” as primitive characteristics, and instead treating them as derivative – the grounds for such speculation solidifies. The intension of eternal objects' ingression into the event, when topologically distant from that of other events, demonstrates a greater degree of novel, event-assertoric creativity⁵⁸ than the “background” influence of other entities in a given actual entity's world. The *logos* of greater spans of topology is the trace of novelty.

Similarly, Whitehead's ontology supports the cointensive description of creativity given in the previous two sections. Of Whitehead's ontology, Auxier and Herstein write, “Whitehead's ontology presents living ideas precisely because it does not employ necessity of the indefensible kind for its ground. Whitehead's ontology is grounded in the assumed equiprimordiality of possibility and actuality, and whatever necessity may be, it is subordinate to possibility.”⁵⁹ This equiprimordiality is, of course, an essential aspect of the twofold sense of creativity detailed in the previous two sections. Whitehead's *ontological* equiprimordiality of actuality and possibility is precisely the *being* of the two senses of creativity.⁶⁰ Further, if, as Auxier and Herstein persuasively demonstrate, this equiprimordiality is *ontological*, one is free to agree with my earlier presumption that *being* and *time* are equiprimordial.

Once the omnitemporal creativity of the actual entity is established, one returns to the role played by potentiality. For Whitehead there is “general” potentiality “provided by the multiplicity of eternal objects,” as well as “real” potentiality based on the “data” of the actual world. Auxier and Herstein name “real potentials” as those possibilities that have “impressive relevance and systematic order.” The actual entity itself, rather, is what is active, and therefore, creative: “the creative exercise of will, then, is the freedom to become more complex and deeper in actuality, while the entropic act is the letting loose of the creative tension generated by the disequilibrium of energies held together in complex interdependencies – the very disequilibrium that compels the entity to act, hurls it toward the future.”⁶¹ The Whiteheadian scheme offers an already-non-linear account of possibility that reinforces the senses of creativity described in the first two sections of this essay. The “contingent effect on

58) Auxier and Herstein support this type of intensional-speculative description, writing: “There is some kind of relationship between division and divisibility and the realities in the physical world. A prehension (divisible only in analysis), and what can be actually divided are related, but prehension and possibility share the characteristic of being divisible only in analysis and thus, our thinking about them is always intensional – we cannot do a logic of possibility that sets individual possibilities into an atomic and mobile class of universals that then pick out particulars. The logic of possibility cannot be extensional.” Auxier and Herstein, *The Quantum of Explanation*, 179.

59) Auxier and Herstein, *The Quantum of Explanation*, 41. In the first sentence, Auxier and Herstein are referencing Whitehead's *The Aims of Education*. From their note: “The distinction between living and inert ideas is explained by Whitehead in *The Aims of Education and Other Essays* (New York: Free Press, 1929), 1–2.” The second sentence corresponds to another note: “See Whitehead, *Science and the Modern World*, 159–60. Here he makes clear that what he means by an ‘eternal object’ is a possibility for an actuality, but there are varied modes of ingression, and while an eternal object ‘cannot be divorced from its reference to other eternal objects, and from its reference to actuality generally ... it is disconnected from its actual modes of ingression into definite actual occasions.’ (159) This ‘disconnection’ is a principle of discontinuity between actual and possible. The relation between possible and actual is pluralized and made contingent, while necessity is reinstated (in multiple modalities) among possibilities independent of their relation to particular actualities ... Whitehead restates this same basic point in *The Function of Reason* (Boston: Beacon Press, 1958 [1929]), 9, with explicit reference to possibility.”

60) Though they do not describe it thusly, this dipolar sense of creativity coheres neatly with Auxier and Herstein's description of “The self-creative moment of the actual entity.” This is especially the case when considering creativity of response. They write: “The self-creative moment of an actual entity in its actual world does not imply its total independence from other occasions, only its uniqueness. No occasion could achieve its unique synthesis without a context of response set by the data prehended in the response phase of its concrescence.” Auxier and Herstein, *The Quantum of Explanation*, 291.

61) Auxier and Herstein, *The Quantum of Explanation*, 287.

actuality” of “temporal passage”⁶² is the metaphysically-classical explanation of the necessity of creativity in time – the non-linearity of time and the contingency of time vis-à-vis actuality is the metaphysical difference introduced by the current essay’s dipolar sense of creativity.

Actual entities are part of a grand (*groß*) whole, and the grand whole is a part of each actual entity. As the whole becomes more interesting with growth toward impossible completion, its component parts (regions)⁶³ also become more interesting. As the whole changes, so, too, do its parts. This reciprocal change may not be evident if regions of knowledge are viewed in isolation, but as *actual components of an interesting whole with actual and necessary relations to that whole*, the component parts will grow in interest and change with the whole. This reciprocal change is conditioned by individual actualities insofar as they are “dipolar.” Actualities are “accompanied by a conceptual reaction partly conformed to it, and partly introductory of a *relevant novel contrast*.”⁶⁴ Growth according to novel contrast is, then, a result of the character of actual entities in the world as dipolarly creative. This whole-part growth is a structure of mutually affecting relations and should be taken as an intelligible, albeit ever-shifting, relation among the various component parts. It is an “assemblage” of contrasts at a higher level, depending on lower levels.⁶⁵ Insofar as the actual entity is *both* new and novel, the relevant contrasts at higher levels of generality also bear both newness and novelty.

This part-whole relationship is an aspect of cosmological time (and, subordinately, space) that reveals a phenomenon necessitated by the argument that logics of creativity are dipolar (with the two senses of creativity described in section one), namely that the part-whole interplay foils both linear-deterministic and static-presentist notions of time. Linearity and presence can both only be measured from reference to either a static point “in” time, or from a stable whole. When both part and whole are ontogenically self-mutable, such concepts of time are eliminated from consideration, and a radically non-linear, but still dynamic, concept remains. This is a pleasant benefit of the study of the logic of creativity for those of use whose ontology of time is non-linear. The logic of creativity gives us yet another reason to eschew “frozen-river” or vulgar determinist “clock-time.” Coherence with, and additional support for, an already overdetermined ontological description is good reason to believe the current adventure into the idea of the logic of creativity is worthwhile.

Another, complementary candidate for integrating Whitehead’s thought into the project of describing time as open to creative novelty⁶⁶ based on time’s (and temporal things’) own non-linearity is to take time itself as an *ersatz* extensive whole. Whitehead describes a single extensive whole as being the result of “a group

62) Ibid., 189–90. The full passage from which this claim is drawn deserves full quotation: “In short, once a constellation (including the ingressing collection physically felt in concrescence) of eternal objects has been incorporated into the achievement of an actual entity, those possibilities are ‘mere’ possibilities no longer. Everything actual must deal with them, and were it not so, there would be no fact that is the world. If there were no such objective demand in concrescence, possibilities might disappear even though they had been realized, and if that could happen, no ground could be given for the togetherness of the world as a fact. In such a situation, any explanation for experience, as had, would be as good as any other; the absence of even a single ingressing eternal object in the actual world of an actual entity indicates that temporal passage has only a contingent effect on actuality. In such a situation, where the capricious disappearance of possibilities shatters experience of the world as solidarity, there can be no such thing as a quantum of explanation. Possibilities as felt by the actual entity, as transition, cannot have a merely arbitrary arrangement. What belongs to determinate order, insofar as we know it (and even though it has not and will not contribute to the definiteness of any actual entity) is nevertheless bounded by a kind of logic of possibility, the limits of which we learn, in part, from the way(s) that certain possibilities fall just short of being realized.”

63) Regions should be understood in a loosely phenomenological, Husserlian sense.

64) Whitehead, *Process and Reality*, 108. Emphasis mine.

65) Whitehead, *Process and Reality*, 95.

66) And, of course, newness. But *mere* newness is far easier to ascribe to time – each tick of a clock or mark on an extensivised “timeline” is, at base, new.

of actual entities” that “contributes to the satisfaction of one extensive whole.”⁶⁷ Of the whole, he writes: “it is divisible, but the actual divisions, and their sporadic differences of character, have sunk into comparative irrelevance beside the one character belonging to the whole and any of its parts.”⁶⁸ Evidence supporting this line of argument is found in *Process and Reality*. Whitehead writes:

Thus the process of integration, which lies at the very heart of the concrescence, is the urge imposed on the concrescent unity of that universe by the three Categories of Subjective Unity, of Objective Identity, and of Objective Diversity. The oneness of the universe, and the oneness of each element in the universe, repeat themselves to the crack of doom is the creative advance from creature to creature, each creature including in itself the whole of history and exemplifying the self-identity of things and their mutual diversities.⁶⁹

One can find evidence for this interpretation in the earlier-published *The Principle of Relativity with Applications to Physical Science*. Therein, Whitehead describes “*Time Systems*.” A “time-system, Whitehead writes, is a sequence of non-intersecting moments including all nature forwards and backwards; ... moments of different time-systems always intersect.”⁷⁰ Though the *Principle of Relativity* characterization includes multiple *time-systems*, each system may be taken as a whole. Notably, these systems include within their wholes “all nature forwards and backwards.” Every moment of such systems, as overlapping, forms a real relation with those other overlapping moments, which then include “all nature.” The holism of Whitehead’s notion of time – whether as an *ersatz* whole, or as a collection of *time-systems*, is non-linear by virtue of the inclusion of temporal “things”⁷¹ in all articulated temporal phases. Judith A. Jones describes a complementary point of Whiteheadian ontology, writing that when one describes the “scheme of extensive relations” within the universe, one must recognize that such a scheme is grounded upon “*entities seeking intensity of feeling*.”⁷² One could certainly see such a description applying to the retroactively extensivised – and therefore homogenized – whole of time. The whole of time seeks its own satisfaction as an actual entity that feels the mereotopological things that make up the organic whole of the universe. When all such relations (feelings, prehensions) are accounted for in the satisfaction of the organic whole of the universe, real relations among temporal things across all “temporal phases” are also accounted for. Of course, “across all ‘temporal phases’” is an inexhaustible totality – “The relatedness of nature is ‘inexhaustible.’ In such a densely relational universe one cannot know a part merely as a part; its relatedness to the whole is an essential aspect of its character.”⁷³ As Auxier and Herstein conclude, “as far as we know, all evolutionary (i.e., asymmetrical cumulative) processes, taken as units, are developments within a larger whole. The many become one and are increased by one.”⁷⁴ This is the result of the novel becoming of the universe.⁷⁵ “God,” it should be noted,

67) Whitehead, *Process and Reality*, 112.

68) *Ibid.*

69) *Ibid.*, 229.

70) Whitehead, *The Principle of Relativity with Applications to Physical Science*, 69.

71) In a broad sense of the term.

72) Jones, *Intensity*, 164.

73) Auxier and Herstein, *The Quantum of Explanation*, 214.

74) *Ibid.*, 289.

75) *Ibid.*, 287.

is the name given to the “force for novelty” in Whitehead’s philosophy.⁷⁶ God, then, is a force for and terminally responsive⁷⁷ to creativity – hardly a radical claim.

Because Whitehead’s ontology is organic and processual, rather than merely mereological, topological, or metrical, this kind of cosmological holism avoids the problems one finds in Platonic cosmological formality (and other types of externalism, or even inclusive presentism cosmologies). Time itself, in this way, contributes to the feelings borne of various actual entities, and their corresponding inclusive, omni-temporal feeling-vectors. If time itself is omni-directional according to these feeling-vectors, then creativity is *at least* dipolar, if not radically omnipolar. Accordingly, *any successful logic of creativity must capture and express the dynamic tension between the actual-possible orientation and the possible-actual orientation*. When one recognizes that both actuality and possibility are dynamic, and contribute to dynamic feelings à la Whitehead, then creativity reveals itself as omnitemporal. Creativity, as both new and novel, as well as logics of creativity, bring in (intension) and push out (extension) time with each creative process.

4) (Intermediate) Conclusion

The following conclusion is intermediate because, like any account, and the genealogy within which this paper finds itself, it remains essentially and inexorably unfinished. Even when creative accounts come to rest – in a Peircean sense – they are unstable (at least when viewed as an aspect of a given autocreating cosmic epoch, an unavoidable constraint on our analysis).⁷⁸ This is the case because logic, as detailed in the beginning of this paper, is necessarily creative – doubly so when one aims to provide a speculative logic of creativity.

One comes to rest in the conclusion, then, that a logic of creativity – indeed, logics of creativity – sets out to *feel* time on the way to feeling newness and novelty. This feeling, and the corresponding expression of the transformed feeling – transformed in both senses of creativity as described in section one – is an inescapable, ontologically self-grounding structure of (at least) our cosmic epoch. The end of this paper’s adventure, as it were, is a return home to dwell with and within the essential tension of the postulate that *logos* and creativity are cointensive and manifest in an intimate togetherness. Unlike the first description of this postulate, however, the renewed postulate is now a more apt, hospitable dwelling for any actual entities, creative persons included.

76) Shaviro, *Without Criteria*, 135.

77) Auxier and Herstein: “The primordial nature of God is equivalent to possibility as such, considered in abstraction from all activity. Possibilities do not bear proportion to one another except in relation to a concrete or a posited actuality. So long as we are free to postulate a possibility as an actuality, we can always think of a different God, a different whole to which finite experiences belong, but which does not increase the totality of possibilities in the cosmic order, and does not commit itself to saying God either did or did not create the possibilities (a question we finite beings haven’t the resources to answer, only to ask).” Later: “If this view is correct, then we can see that the universe is always novel and unpredictable to God, within limits, and that God will experience every event immediately in its uniqueness – after it happens.” Auxier and Herstein, *The Quantum of Explanation*, 287. Later, they write: “That is why the God of philosophy is not of very much use to religious believers, although it is pretty useful to theologians. All this is by way of saying, with Nietzsche’s madman, ‘I have come too soon.’ If God has a ‘soul,’ in the sense of a finite mode of existing that is tied to life, we have little reason to suppose it is immortal, and some analogical grounds for supposing it is mortal. The direction of God’s activity, for process philosophers, is from whole to part (providing the creative context for creative activity by finite beings, which could be called incarnation or *catabasis*). The activity of finite beings is from part to whole, contribution of a satisfaction to the many, which could be called self-transcendence, contributionism, or even *anabasis*. To search for the transcendent God is neither necessary nor wise for philosophy. The God immanent in every act is the one we can know something about empirically.” Auxier and Herstein, *The Quantum of Explanation*, 295.

78) Some readers may find the intermediacy of this conclusion uncomfortable, insufficient, or both. I suspect such readers still cling to the fiction of theoretical completion. While striving for a perfect correspondence between theory and a dynamic world might be a useful quixotic fiction, I suspect that we theorists would be better served, and better serve the world around us, once we stop tilting at windmills and enjoy the poetry of the breeze that animates those windmills.

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