

METAPHYSICS BETWEEN CONTRADICTIONS AND PARADOXES: SOME WHITEHEADIAN REMARKS

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ABSTRACT: In order to contextualize the stakes of some of the most venerable philosophical conundrums, it is expedient to remember Whitehead's own adventures of ideas. Five steps are important to do understand why is Whitehead the post-modern Plato: (i) how does he differentiate metaphysics and cosmology? (ii) what does "onto-logic" involve? (iii) why should we articulate the coherence and applicability of any philosophical system? (iv) what are, in a nutshell, the specificities of Whitehead's ontology? (v) how does radical empiricism provide elements of solution to contradictions and paradoxes? Since I have already published on all these matters, only a synoptic reminder of these issues is provided here.

KEYWORDS: Alfred North Whitehead; Contradictions; Paradoxes; Logic; Metaphysics; Ontology; Process

o. WHY WHITEHEAD IS THE POST-MODERN PLATO

A. N. Whitehead's (1861–1947) works have been arguably as influential as they have lacked visibility. Perhaps seeing him as the post-modern Plato gives an idea of the magnitude of his thought and of the difficulty to assess its relevance once and for all.

On the one hand, like Plato, Whitehead has studied, taught, and contributed to all the science of his time, from Algebra to Natural theology. Also he has created a (rather) unified, coherent and applicable worldview, mainly in *Process and Reality* (1929). His main sources of inspiration were common sense, algebra, Maxwell's field concept (1873), Spencer (1855), and Darwin (1859).

On the other hand, unlike Plato, he gave a positive ontological status to the accident, the creative event. Whitehead is indeed mainly concerned with the *sumbebekos*. According to his process / organic philosophy, this is the place to start any serious philosophical discussion: “We are accustomed to associate an event with a certain melodramatic quality. If a man is run over, that is an event comprised within certain spatiotemporal limits. We are not accustomed to consider the endurance of the Great Pyramid throughout any definite day as an event. But the natural fact which is the Great Pyramid throughout a day, meaning thereby all nature within it, is an event of the same character as the man's accident, meaning thereby all nature with spatiotemporal limitations so as to include the man and the motor during the period when they were in contact.”¹

1. METAPHYSICS AND COSMOLOGY

Metaphysics, cosmology and speculative philosophy constitute, in that order, three overlapping disciplines addressing embedded issues.

On the one hand, metaphysics is the science (*lato sensu*) questioning necessity, i.e., the principle at work for all possible universes. In a nutshell: one cannot conceive of a state of affairs that would not exemplify metaphysical —first— principles. This is nothing but the pre-Kantian understanding of metaphysics, and especially Leibniz's.

On the other hand, cosmology questions actual contingencies and the laws that hold for this cosmic epoch, like all local characters making the existence of conscious observers possible. Whitehead has in mind, and anticipates, the debate around what has been later names the “anthropological principle” (Barrow and Tipler 1986). It goes back to Eddington's 1923 speculations: “all the quantitative propositions of physics, that is, the exact values of the pure numbers that are constants of science, may be deduced by logical reasoning from qualitative assertions without making any use of quantitative data derived from observation.” At stake are the speed of light in the vacuum (“*c*”), the elementary charge (“*e*”), the gravitational constant (“*G*”), Planck's constant (“*h*”), the electric constant — also called permittivity of free space or absolute permittivity (“ ϵ_0 ”)—, and electromagnetic permittivity (“ μ_0 ”). In 1937, Dirac formulates the Large Numbers

¹ CN 75

Hypothesis, and in 1955 Whitrow writes “physical conditions of the Earth have been such that the evolution of Man has been possible (...) this fundamental topological property of the world (...) could be inferred as the unique natural concomitant of certain other contingent characteristics associated with the evolution of the higher forms of terrestrial life, in particular of Man, the formulator of the problem.”

Speculative Philosophy qua *scientia generalis* integrates all gnoseological fields and human affairs; as such, it invites the shift towards radical empiricism. In other words, its goal is not only to define the necessary and contingent features of our world, but also to tangentially approach the existential questions themselves and especially to probe the varieties of (un)conscious experiences.

2. ONTO-LOGIC

The entire (Western) philosophical enterprise relies upon an onto-logical wager: there is a correlation, if not a plain identity, between the rationality of the “world” and the rationality of the “mind.” This standpoint has been fostered, historically, when the mythological worldview had to be curtailed to enable the birth of philosophy, science, and democracy. Later, it has been locked through the cultural prevalence of monotheism: since “god” is a rational and benevolent creator, we find the same rationality (“logos”) at work both in his mind, in his world and in his sentient creatures. Here is how Whitehead puts it:

I mean the inexpugnable belief that every detailed occurrence can be correlated with its antecedents in a perfectly definite manner, exemplifying general principles. Without this belief the incredible labours of scientists would be without hope. It is this instinctive conviction, vividly poised before the imagination, which is the motive power of research:—that there is a secret, a secret which can be unveiled. (SMW 12)

Faith in reason is the trust that the ultimate natures of things lie together in a harmony which excludes mere arbitrariness. It is the faith that at the base of things we shall not find mere arbitrary mystery. [...] The harmony of logic lies upon the universe as an iron necessity. (SMW 18)

In other words, “logic presupposes metaphysics” (MT 107) and this means that epistemological difficulties, when they occur, are only solvable by a critical appeal to ontology (PR 190). Let us take three examples: change, if not movement itself, has been misunderstood precisely for that reason: Whitehead follows here

James' reading of Zeno. Liberty has remained thinkable only through antinomies until a process worldview was made available. The ontological status of the past seemed unfathomable.

This being underlined, three conceptual possibilities can be identified.

First, the ancient idea of a "cosmos," a closed and rather well-ordered world, defines the Greek worldview. It requires the concept of "logos" that provides for a (strict) order, a hierarchy of laws.

Second, the equally venerable idea of "chaos," especially at work in mythological narratives, names what is fully unintelligible, what is without form, cause, or reason. This is the domain of the "alogos."

Third, James Joyce has, jokingly, provided us with the idea of "chaosmos" (*Finnegans Wake*, 1939), that has been put in philosophical motion by process thought. The point is to understand that the well-ordered world is actually a surface-effect of a chaotic, i.e., unpredictable one. This is essential to understand the opacity of conscious experience, as well as the inevitability of sheer novelty. As a result, one could speak of "paralogos."

3. LOGIC AND APPLICABILITY

The issue of the *logical* consistency and applicability of a given philosophical system follows.

According to PR 3: "The term "logical" has its ordinary meaning, including "logical" consistency, or lack of contradiction, the definition of constructs in logical terms, the exemplification of general logical notions in specific instances, and the principles of inference. It will be observed that logical notions must themselves find their places in the scheme of philosophic notions." The criterion asks to the scheme to be expressible in logical terms and to welcome logical constructs as well; it embodies mainly a requirement of non-contradiction that can be specified very simply: two propositions contradicting each other cannot be accepted together in the same system. Although Whitehead states only that the term "logical" has its "ordinary meaning", let us remember that a precise definition of non-contradiction has to stipulate the formal system in which it is applicable.

This requirement belongs without doubt to the good sense that Descartes found in everyone—the price to pay for that certitude being the concealment of

the presuppositions of the principle of non-contradiction. With that regard, logics does not presuppose only metaphysics: logic presupposes a pratico-ethics as a condition of possibility.ⁱ It is indeed known since Łukasiewicz that the different “proofs” of the principle of non-contradiction that punctuate the Book *Gamma* are either insufficient or circular. This correlation of the logical and the ethical has of course deeper roots, so much so that it would be perfectly expedient to go back to the Socratic message, as briefly indicated by Arendt;ⁱⁱ or to relativize the importance of non-contradiction in metaphysics—a path adopted by Whitehead, we will discover it in a moment.

Contradictions are not for Whitehead a stumbling block: they are “the most gratuitous of errors; and usually they are trivial” (PR6):

A mere logical contradiction cannot in itself point to more than the necessity of some readjustments, possibly of a very minor character, on both sides. [...] In formal logic a contradiction is the signal of a defeat, but in the evolution of real knowledge it marks the first step in progress toward a victory. (SMW 185 and 187)

The criterion of coherence, as Whitehead understands it, imposes a double constraint on the institution of a categoreal scheme. On the one hand, it asks the interdependence of the categories, it is a co-presuppositional requirement: each systematical concept has to *presuppose* the others so that in abstraction from the scheme it would be meaningless. A category is operational *only* within a certain configuration. On the other hand, the criterion of coherence asks the independence, i.e., the non-reciprocal deductibility of the categories: categories should not be definable in terms of each other (PR 3). It is what logicians call in their ethereal sphere *contributiveness*. In sum, the demand of coherence embodies an ideal of *categoreal democracy* allowing both categoreal interdependence and independence. No category can be more fundamental than the others.ⁱⁱⁱ The philosopher’s goal is a strong network similar to a cobweb (or lattice) in which the empirical will be caught. Naturally, that image has to be corrected by another—the quest of adequacy—, because otherwise we might think that the net has simply to be the tightest possible in order to insure the best metaphysical fishing.

Now, a philosophical system that is coherent (and preferably consistent) has also to be applicable, i.e., to be useful to navigate in the world. One additional danger has to be mentioned from that perspective: paradoxes. A paradox bankrupts rationality and collapses the very possibility of acting meaningfully.

Watzlawick classifies paradoxes in three categories:² logico-mathematical paradoxes, like Russell's paradox of the class of all classes that do not contain themselves—paradox which can be interpreted as a fallacy due to the confusion of logical types—; semantical paradoxes like the Epimenides (“I am lying”)—explainable by the distinction of levels of language (see Carnap and Tarski)—; and finally pragmatic paradoxes. Paradoxical injunctions are of the type “Be spontaneous”, “I want you to dominate me” or “Don't be so obedient”. To obey such an injunction, you have to disobey it—and vice versa.

4. WHITEHEADIAN ONTOLOGY

Whitehead's ontology is systematically developed in *Process and Reality* only. Negatively, it amounts to denounce the incoherence of Descartes' two-substance ontology and the inapplicability of substantialism itself. Positively, it requires a new categoreal scheme to be focalized on the notion of creativity (aka process, becoming, creativity).

Shifting from a continuist philosophy of nature to an epochal ontology springs from the necessity to solve epistemological difficulties that boil down to the centrality of creativity and spontaneity for humans. Three developmental steps deserve to be underlined.

First, Whitehead's continuous philosophy of nature constitutes an implicit “ontology” that interprets mesocosmic events according to common sense associated with Faraday's concept of electromagnetic field. Conceptually, it relies upon a mereology (the relation of extensive abstraction whose relata are events). It is a weak concept of process also exemplified by the continuous flux of elements such as water.

Second, Whitehead's epochal ontology systematizes the rational requirements of microcosmic events that relies upon James's reading of Zeno. Conceptually, it fosters a mereo-topology (the extensive connection whose relata are regions) It is a strong concept of process that involves the idea of discontinuous creation (interestingly enough, Heraclitus himself uses the metaphor of fire to disclose the meanings of change)

² Watzlawick, Paul ; Beavin, Janet Helmick ; Jackson, Don D., *Pragmatics of Human Communication. A Study on Interactional Patterns, Pathologies and Paradoxes*, New York, Norton, 1967, pp. 187 sq.

Third, we have to envision the togetherness of these two analyses and foster the idea of a contiguity of processes. Actual entites are like slabs following each other in the extensive continuum: it concretes, is satisfied, then stabilizes itself in transition. The continuous phenomenology of nature is now build out of a discontinuous ontology: the gearing of the genetic /coordinated analyses. Contiguity names the “becoming of continuity” that is no “continuity of becoming.” This has furthermore theological consequences reminiscent of Eckhart, Suarez and Descartes (the co-creation), but also of “dependent origination” (“pratitya-samutpâda”).

In sum, we obtain a plenum of “actual entites” in the making (“no actual entity, then no reason” —PR 19). Importantly, these actualities owe their ontological status to prehensions, that act as virtualities and to a structure of uniform potentiality, that is both general (the “eternal objects”) and real (the “extensive continuum”).

General—or absolute—potentiality is constituted by the multiplicity of the eternal objects (*eternal* meaning *atemporal*). Eternal objects are determinative only through some actuality; in themselves, they say nothing of their ingressions in conscrescent (and concretesced) actualities.

Real potentiality rests on two main concepts: the concept of extensive continuum, that we now peruse; and the concept of primordial nature of God, that would require more attention than we can offer here. The extensive continuum embodies the matrix of coordination of these different ontological sectors; thanks to its remarkable properties, it secures the solidarity of all standpoints. Extension is both *derivative* and *required*: the a priori dimension of the extensive continuum comes from the existence of *basic* regions while the aposteriori dimension comes from the *proper* regions. PR’s Part IV gears the (binary) relation of extensive connection and the region. Its immediate goal is to build the extensive continuum with the help of an “ultimate” relation operating on an “ultimate” domain. By doing so, Whitehead furthermore institutes a medium or half-way house between real potentiality (the extensive continuum) and general potentiality (the eternal objects) and consequently articulates the layers of virtuality that allows the birth of the event. The mediate goal of this *ab ovo* renewal of the foundations of extension (independently of set theory and way ahead of the development of current mereological tools) is to formalize a pointless

(in the sense of point-free) geometry.

Most of these technicalities can be cautiously bracketed in order to emphasize the essential: the permanent co-regeneration that has just been mentioned. The extensive continuum is a totality weaved with three threads that unfortunately PR does not highlight with enough clarity: basic regions, objective proper regions and subjective proper regions. Basic regions are *presupposed*, a priori, *in posse*, i.e., metaphysically necessary, whatever the temporal horizon is (they belong so to speak to the necessary future). Their extension is unlimited and they are infinitely divisible. Objective proper regions are *derived*, potential (actualized), a posteriori, *in esse*, i.e., they tag behind the toppling into objectivity of the concreated actuality. They belong to the past and are divisible through morphologic or coordinate analysis, into sub-regions^{iv}—but there is a price for such an analysis: the obliteration of the remnant subjective dimension in satisfied actualities and the isolation of prehensions that are not actually separated but could be so. Subjective proper regions are *actual*, i.e., *in fieri*. They manifest the ultimate epochal nature of eventful actuality. Atemporal, i.e., durational, they cannot be analyzed morphologically but only genetically in order to propose the most likely scenario of a condescence that, *de facto*, occurs all at once. Accordingly, the extensive continuum *qua* structure of solidarity accounting for the plenum that is the God/World binomial and for its creative advance (that involves the three temporal horizons) is, by definition, continually reconfigured by the irruption of new actual occasion and their integration into the mundane tissue.

5. CONTRADICTIONS, PARADOXES AND CONSCIOUSNESS

In sum, nothing changes but everything becomes in Whitehead's process ontology. Even eternal objects and the extensive continuum have to be understood as subject to novelty. Spontaneity, that can be named liberty in the case of high grade events, is the build in feature of the world. The ontological status of the past, for its part, is defined by the perished actual entities and their extensive network.

Three last complementary elements of reflexion need to be mentioned in conclusion.

First, ontology needs to free itself from the diktat of the normal state of consciousness and its dependence upon sense perception. As soon as one pretends

to question the nature of the ultimate, one has to accept that contradictions and paradoxes spring from the very limited standpoint provided by everyday experience. Plato's concept of "theôria" constitutes an early testimony of that very basic requirement.

Second, altered states of consciousness and other abnormal perceptions deserve some attention to flesh a truly holistic perspective.

Third, this move has been advocated explicitly by William James, who spoke of "radical empiricism," and implicitly by Whitehead through the various categories mentioned here.

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- AI *Adventures of Ideas*, 1933 (Free Press, 1967).
- CN *The Concept of Nature*, 1920 (Cambridge, 1964).
- D Lucien Price, *Dialogues*, 1954 (Mentor Book, 1956).
- ESP *Essays in Science and Philosophy*, Philosophical Lib., 1947.
- FR *The Function of Reason*, 1929 (Beacon Press, 1958).
- MT *Modes of Thought*, 1938 (Free Press, 1968).
- OT *The Organisation of Thought*, Williams and Norgate, 1917.
- PNK *Principles of Natural Knowledge*, 1919/1925 (Dover, 1982).
- PR *Process and Reality*, 1929 (Free Press Corr. Edition, 1978).
- R *The Principle of Relativity*, Cambridge, 1922.
- RM *Religion in the Making*, Macmillan, 1926.
- S *Symbolism, Its Meaning and Effect*, Macmillan, 1927.
- SMW *Science and the Modern World*, 1925 (Free Press, 1967).

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ⁱ Cf. Karl Otto Apel, *Transformation der Philosophie. 1: Sprachanalytik, Semiotik, Hermeneutik; 2: Das Apriori der Kommunikationsgemeinschaft*, Frankfurt am Main, Suhrkamp, Suhrkamp Taschenbücher Wissenschaft 165, 1973.

ⁱⁱ Cf. Hannah Arendt, *The Life of the Mind*. One-volume edition, San Diego, New York, London, Harcourt Brace Jovanovich, 1978, pp.179sq.

ⁱⁱⁱ For an interesting analogy in nuclear physics, see Geoffrey S. Chew's "bootstrap" theory.

^{iv} PR 219 and 283sq.