MIND IN NATURE

Bridging Process Philosophy and Neoplatonism

Maria-Teresa Teixeira

Aljoscha Berve

Moirika Reker

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TABLE OF CONTENTS

MICHAEL WAGNER 1952-2020

On March 11, 2020, Michael Wagner died in the Coronado Hospital in San Diego, where he was undergoing treatment for laryngeal cancer with head and neck malignancy. Michael was born in Victoria, Texas on September 29, 1952. He received his B.A. in Philosophy from Texas A&M and his M.A. and Ph.D. from Ohio State University. His dissertation was entitled *Concepts and Causes: The Structure of Plotinus' Universe*. He began teaching at the University of San Diego in 1980, where he served as an associate dean in 1988-89 and as chair of the Department of Philosophy from 1988 until 1998. He continued teaching there until he entered the Coronado Hospital in November 2019.

Michael's publications are known and used by all of us. His research centered on Plotinus, but his interests also extended to Augustine—and, of course, Plato and Aristotle. In 2008 he published *The Enigmatic Reality of Time* in the Brill series "Studies in Platonism, Neoplatonism, and the Platonic Tradition." In 2002 he edited the anthology *Neoplatonism and Nature: Studies in Plotinus' Enneads* in the series "Studies in Neoplatonism: Ancient and Modern" of SUNY Press. 1991 saw his *Moral Philosophy An Historical Introduction"* published by Prentice Hall. He has published multiple articles, including "Platonism" in the *New Catholic Encyclopedia: Ethics and Philosophy Supplement* (2013), "Plotinus on the nature of physical reality," in *The Cambridge Companion to Plotinus* and most recently "Foundations of Ecology in Plotinus' Neoplatonism" in the ISNS anthology from the 2018 Los Angeles conference, *Platonic Interpretations* (published by Prometheus Trust).

Michael Wagner had a keen interest in Process Philosophy and his expertise in Neoplatonism enhanced the many topics both philosophies share such as causality, complexity, holism, order, potentiality, multiplicities, and temporality. He participated in the Process Philosophy section in the 2014 ISNS conference which took place in Lisbon. And he organized a session on Neoplatonism and Process Philosophy in the 2017 International Whitehead Conference which took place in the Azores Islands. This session attracted a great deal of interest and gathered many original papers.

His contribution to this volume (coming from his presentation at the 2014 ISNS conference) explores some perspectives of post-mechanistic science; he tries to show that some of its metaphysical foundations, which

can also be found in Process Philosophy, draw on Neoplatonism. His views, mainly on Plotinus, set new models for new approaches to Nature, Science and Philosophy.

Michael was only 67 years old when he died. He is survived by a sister, Gayle, brother, Dennis, two nieces and a nephew, and by his beloved Sue Higgins. His body was cremated in San Diego, and his remains were returned to his native Texas for burial. He will be greatly missed not only by the Neoplatonic philosophical community but also by the Process Philosophy circle. His legacy of scholarship, devotion, and caring will live on.

John F. Finamore, University of Iowa
Maria-Teresa Teixeira, Universidade de Coimbra

LIST OF ABBREVIATIONS

AE: Whitehead, Alfred North. *The Aims of Education and Other Essays*. New York: The Free Press, 1967.

AI: Whitehead, Alfred North. *Adventures of Ideas*. New York: The Free Press, 1967.

CN: Whitehead, Alfred North. *The Concept of Nature*. Cambridge: Cambridge University Press, 1964.

EPN: Whitehead, Alfred North. *An Enquiry Concerning The Principles of Natural Knowledge*. Cambridge: Cambridge University Press, 2011.

ESP: Whitehead, Alfred North. *Essays in Science and Philosophy*. New York: Philosophical Library, 1947.

FR: Whitehead, Alfred North. *The Function of Reason*. Boston: Beacon Press, 1958.

IM: Whitehead, Alfred North. *An Introduction to Mathematics*. Oxford: Oxford University Press, 1958.

MT: Whitehead, Alfred North. *Modes of Thought*. New York: The Free Press, 1968.

OT: Whitehead, Alfred North. *The Organization of Thought*. London: William Norgate, 1917.

PR: Whitehead, Alfred North. *Process and Reality: An Essay in Cosmology. Corrected edition. Edited by David Ray Griffin and Donald W. Sherburne*. New York: The Free Press, 1978.

R: Whitehead, Alfred North. *The Principle of Relativity with Applications to Physical Science*. Cambridge: Cambridge University Press, 1922.

RM: Whitehead, Alfred North. *Religion in the Making*. New York:

Meridian Books, 1960.

S: Whitehead, Alfred North. *Symbolism, Its Meaning and Effect*. New York: Macmillan, 1927.

SMW: Whitehead, Alfred North. *Science and the Modern World*. New York: The Free Press, 1967.

PREFACE

This volume is a selection of the papers presented in the section *Mind in Nature: Process Approaches to Neoplatonism* at the *International Society for Neoplatonic Studies Annual Conference*, which took place in Lisbon, Portugal, on June 16-21, 2014. The connection between Neoplatonism and modern process thought is an innovative approach to scholarship of both Neoplatonism as well as Process Philosophy.

It is also the fifth volume of the series "European Studies in Process Thought", a series designed to promote and discuss Process Philosophy across Europe in all its facets, which demonstrates the growing popularity of process thinking in Europe. To reinforce and coordinate this trend, the "European Society for Process Thought" (www.ESPT.eu) was established in 2012. The ESPT is publishing the series "European Studies in Process Thought".

The history of European scholarship in Process Philosophy has seen ebbs and flows. Even the very term "Process Philosophy" might be said to be ambiguous. While usually the term "Process Philosophy" is associated with the American tradition of Charles Sanders Peirce, William James, John Dewey and Alfred North Whitehead, from the perspective of European philosophical tradition certain German philosophers of the 19th century, most importantly Friedrich Wilhelm Joseph Schelling and Georg Wilhelm Friedrich Hegel, could also be said to have put forward systems of Process Philosophy. This ambiguity points to one of the most important characteristics of Process Philosophy: Unlike in other fields of philosophy, only a few philosophers describe themselves explicitly as being "Process Philosophers". Peirce, James, Dewey, Whitehead, Schelling and Hegel would usually first and foremost be related to other philosophical schools, such as Pragmatism, Radical Empiricism or German Idealism and not *prima facie* to Process Philosophy. A good example of this can be found in Alfred North Whitehead: Although he is usually considered the seminal representative of Process Philosophy, Whitehead himself used to refer to his philosophy as the "philosophy of organism".

The ESPT was established to explore this variety of Process Philosophy within the philosophical discourse in Europe and to further all endeavours to intensify debate on this topic, with all its inherent potential and tensions. In doing so, the ESPT can build upon the groundwork of its predecessor. As

early as 1978, a "European Society for Process Thought" was founded, and it was run for two decades by Jan van der Veken of the University of Leuven, Belgium. Its focus was mainly on the philosophy of Alfred North Whitehead. Early Whitehead-scholars, such as Dorothy Emmet, were making his philosophy popular in Europe. During the 1980s, a manifest interest in Whitehead amongst German philosophers led to conferences and accompanying proceedings, published by Friedrich Rapp, Ernst Wolf-Gazo and Reiner Wiehl, and, most importantly, the German translation of "Process and Reality" by Hans Günter Holl in 1987. In France, the French perception of Whitehead has in the first years of the millennium led to books by Bertrand Saint-Sernin and Isabelle Stengers. In addition, Michel Weber has been publishing the "Chromatiques Whiteheadiennes" in both English and French for many years.

The ESPT intends to broaden its aspirations in two ways, both of which are a reaction to changes in the landscape of philosophical discourse: Firstly, the fall of the Iron Curtain has opened up paths for collaborative philosophical discussions for the scientific communities of Eastern Europe. Process Philosophy has sparked interest in Eastern Europe: in Poland, the "Polish Metaphysical Society" is a very active community; in Bulgaria, Vesselin Petrov is working on the relevance of Milic Capek as a process philosopher from the perspective of sciences. Ella Csikós has worked on Hegel and Whitehead in Hungary. At the other end of Europe, Maria-Teresa Teixeira has presented a Portuguese translation of "Process and Reality". It is evident that the European discussion of Process Philosophy has moved well beyond the range it occupied in the past. Secondly, the notion of "Process Philosophy" has become broader in recent decades. While a discussion of Process Philosophy in the past usually concentrated on the philosophy of Alfred North Whitehead, it now also focuses on other thinkers. Vesselin Petrov's work on Milic Capek is a good example of this broadening of scope.

The mandate of the "European Studies in Process Thought" is indicated in this outline. In order to bring diverse multi-lingual philosophical communities together in a discussion of Process Philosophy the "European Studies in Process Thought" intend to be as open as possible for different endeavours in Process Philosophy. To maintain the speculative reach of process thinking, the series proposes to refrain from any attempts to simplify the topics it is dealing with, by setting or following agendas, even where a reduction of the complexity that is inherent to most of Process Philosophy could yield a handy field of application. Narrowing down the scope of process thinking to a definite, particular problem threatens to misuse a theory meant to explore the wide sweeps of abstract thought to serve a set

position within a specific debate. In doing so, the "European Studies in Process Thought" mirror the outstanding characteristics of Process Philosophy: the speculative reach that tries to abstain from dogmatic constringence, the openness for new discoveries, and the creative impulse, which sometimes even revises accepted positions.

In the current volume, this approach is used for an examination of the connection between Neoplatonism and Process Philosophy. While the study of Neoplatonism has focused not only on late antiquity, but also on medieval thought – namely, Arabic as well as Christian Scholastic philosophy –, modern scholars have come to find strong systematic connections between the Neoplatonic tradition and Renaissance philosophy. As far as modern philosophy is concerned, the influence of Neoplatonic thought on the *Cambridge Platonists* of the 17th century has been covered extensively. Since this school of thought culminates in the philosophy of Shaftesbury, the importance of some Neoplatonic figures of thought shows traces even in modern ethics.

The connection of Neoplatonism to Process Philosophy is a more recent development of scholarship in both fields and encompasses a surprising number of topics. Most obviously, since Alfred North Whitehead is often regarded to have been the author of the last comprehensive metaphysical scheme in 20th century philosophy, both the holistic dimension as well as the speculative reach of his cosmology connect directly to the scope of Plotinus' thought. The importance of time and space and the intricate interplay of unity and multiplicity are significant factors in both Neoplatonism as well as Process Philosophy. In addition to that, contemporary research shows ever more clearly that the structural parallels between both schools of thought go further in the common emphasis on the difficult relation of body and soul, the importance of mathematics for a meaningful understanding of the world and the relevance of music. Beyond the discussion of mutual structures, there are direct influences of Neoplatonic philosophy on the works of a number of process thinkers. Plotinus features prominently in the writings of Henri Bergson, who elaborates on a number of ideas from distinctly Neoplatonic origin. Another point of contact comes from Alfred North Whitehead's interpretations of the cosmological scheme presented in Plato's Timaeus. He regards Plato's dialogue not only as a convenient myth, but as a proper mode of a cosmological explanation of the world. With his own metaphysical scheme, subtitled "An Essay in Cosmology", being a serious attempt to build upon the groundwork of Plato's cosmological work, he himself exemplifies his famous quote that "[t]he safest general characterization of the philosophical tradition is that it consists of a series of footnotes to Plato."

xiv

Preface

The contributions to this volume deal with a wide and diverse area of processual thinking in Neoplatonism. *Michael F. Wagner*, in *The End of Final Causality in Plotinus' Process Understanding of Nature and Order*, extensively discusses the many implications of process on the work of Plotinus himself. With the notion of "vertical emergentism", Wagner coins a metaphor that can be used to describe the specific concepts of order, nature and soul in Plotinus from a process perspective. While the implications of the soul's teleological aspects have been covered extensively by scholarship, Wagner shows a reading of Plotinus that is both refreshing as well as fruitful.

Levan Gigineishvili undertakes an analysis of the influence of Neoplatonic thought on the tradition of Christian philosophy in his text *Uneasy Rapprochement of the Neoplatonic Eternity and Christian Historicity in the Thought of Ioane Petritsi*. He focuses his attention upon the 12th century Georgian philosopher Ioane Petrisi, who comes from a background in theology, but aims to connect the canonical Christian writers with ideas on Neoplatonism, most importantly Proclus.

Carlos João Correia takes yet another approach to Neoplatonism that leads into modern philosophy. In his text *Schopenhauer and Platonic Metaphysics. Towards a new Interpretation of the World as Will and Representation*, he compares the concept of will in the metaphysics of Neoplatonism and in German Idealism. Specifically, Schopenhauer's esoteric philosophical perspective lends itself quite clearly to an interpretation from the perspective of Neoplatonic philosophy. As Schopenhauer claims himself, he finally understood Plato's concept of *Ideas*. In the connection of will and world transcendence, Schopenhauer emerges as a true heir to the philosophical tradition from Plato to Neoplatonism.

Luca Vanzago draws a direct parallel between classical philosophy in the Platonic and Neoplatonic tradition and modern Process Philosophy in *Whitehead's Appropriation of Plato's χωρα: its meaning and effect for a philosophy of natural experience*. Because Whitehead uses Plato's concept of the chorá intermittently over his works, the systematic connection to larger metaphysical concepts remains unclear. Therefore, the title of this text is a wordplay on another concept of Whitehead rarely analysed in its relevance for metaphysics in that it mimics another title, *Symbolism. Its Meaning and Effect*. Vanzago succeeds in showing the deep structural connections between the Platonic concept of chorá and the modern process cosmology of Whitehead and the importance of this discovery for a process-based philosophy of nature.

Magda Costa Carvalho analyses the connection between Plotinus and Henri Bergson, another central author of modern Process Philosophy, in

Unity and Multiplicity: The Road to Openness. Plotinus in Henri Bergson's Thought. The focus is on Bergson's work *Creative Evolution*, in which he draws many parallels between his philosophical outlook and Neoplatonism, most importantly focused on Plotinus, whom he regards to have been "the last word of Greek philosophy". Most importantly, Bergson criticizes Aristotle for his concept of movement, whereas he regards Plotinus as important because of his philosophical intuitions. However, since Bergson still holds Plotinus to have been granted a look at the holy land without setting foot on its soil, it remains clear that, from Bergson's perspective, modern process thought still advances further than the old, yet admirable, Neoplatonic philosophy.

A similar perspective is given by *José C. Baracat Jr.* in his text *A Bergsonian Reading of Plotinus' Theory of Time.* He focuses on the comparison between the concepts of time in Plotinus and Bergson. The author makes it perfectly clear that he regards these concepts to be close to each other, but not interchangeable. Therefore, the analysis presented must maintain a certain tension between both perspectives without magnifying the differences. As Plotinus insists, time is a product of the soul. Here, the connection to Bergson's critique of overly scientific notions of time is obvious. While Bergson introduces his concepts of duration and qualitative multiplicity in connection with his concept of time, it is important to point out that his notion of consciousness is thoroughly modern and does not compare easily to the notion of soul in Plotinus.

Moirika Reker gives an application of Plotinus to practical modern aesthetical concepts in her contribution *The unity between Beauty and Good: Ethics of Contemplation and the Creation of Gardens*, which begins with the works of Rosario Assunto and shows how Plotinus extends the thoughts on an ethics of contemplation to a more comprehensive philosophical perspective. Since the notions of Beauty, Good and Truth do not only form the basis of Platonic and Neoplatonic thought, but also of the earliest system program of German Idealism, the argument brought forth by Assunto relates to a multitude of philosophical backgrounds. It is specifically the connection between beauty and usefulness that shows the implications of these traditional concepts for thoroughly modern applications.

Maria-Teresa Teixeira in her contribution *Infinity and Unity: From Eriugena to Whitehead* delivers another perspective on the connection between old philosophy and modern Process Philosophy. She discusses the connection between Johannes Scotus Eriugena and Whitehead with a focus on the metaphysical notions of Infinity and Unity. Both Eriugena and Whitehead not only consider themselves, amongst other things, as philosophers of nature, but both see the need to complement their concept

of nature with a notion of God immanent in a process of creation. Since both Eriugena and Whitehead focus their models of explanation on the core concept of the Monad, showing the connections between both philosophical outlooks carries obvious value.

Alex Haitos takes a similar approach in his text *The World 'Hangs Together': Nature, non-being, and infinity in John Scotus Eriugena and Alfred North Whitehead*, which discusses not only the concept of infinity, but also the complex philosophical notion of non-being in both Eriugena and Whitehead. Throughout his entire work, Eriugena emphasizes the necessity to conceive of nature as divided. The connecting factor is his comprehensive notion of God, permeating all of nature and enabling its infinity. However, this also means that God is an immanent force in the becoming of nature. Here, the connection to the processual notion of God in Whitehead's cosmology suggests itself. Between the notions of creation and creativity, the argument for a common thread running from Eriugena to Whitehead cannot be overstated.

The connection between Christian theology and modern Process Philosophy also informs *God and Creation in A.N. Whitehead and Dionysius the Areopagite*, the contribution of *Helmut Maaßen*. For scholars, the most difficult concept to understand in Whitehead has always been the notion of the actual entity. Its structure is a direct legacy of Whitehead's work as a mathematician, most importantly within the field of mereology. Taken together with the idea of the immanence of past and future in the present moment of actualization, there is a connection to the ideas of Dionysius the Areopagite, whose notion of trinity entails the interdependence of God, nature and creation in a continuing process of becoming, quite akin to modern Process Philosophy.

In a similar vein, *Ana Rita Ferreira* discusses the importance of the concept of numbers compared with Process philosophy in *Saint Augustine's numerical aesthetics in the light of process metaphysics*. In his discussion of creation, Augustine famously addresses the problem of the free will of man as creations of God. The idea that imbues all of Augustine's argument is that creation is never finished, but that there is a constant relation between God and himself as well as his creation. Understanding the nature of the triune God requires a mereological approach to nature that links all things in the diversity of their parts to the unity of the whole.

Dennis Sölch discusses the subject of science in early transcendentalism in *Nature with or without Mind? – Science and the View from Nowhere in the 19th Century*. Focusing on Emerson, it is the rediscovery of pre-modern attitudes towards knowledge that gives us the most accurate insight into the approach to science employed by authors of the time. Both Goethe and

Emerson, while remembered today mostly for their work as poets, had elaborate positions on scientific theory. The immersion into nature from a perspective not of an objective observer, but of a dynamically involved human being also lead Emerson to a concept of action that is not dependent on theory, but creates the unity of nature in the mind.

Aljoscha Berve discusses the connection between the concept of language in Process Philosophy and the practice of the dialogue in Platonic philosophy in *Symbolism and Dialogue: The Language of Discovery*. At first sight, Whitehead's metaphysical system seems to be a very scientific-minded and abstract philosophy, which would not surprise if it relied upon strict terminology. Concepts such as the actual entity and prehensions seem to reinforce this idea. However, at its core Whitehead's Process Philosophy is based on an interpretation of quotidian human experience as disclosed in common language. Therefore, it is precisely the concept of symbolism that underlies the notion of propositions and connects Process Philosophy back to Plato's intuitions of good philosophical practice.

As the final piece of analysis, *Michel Weber* discusses the implications of Whitehead's concept of creativity in *The Concepts of "Creation" in the Late Philosophy of A. N. Whitehead*. Since creativity is one of the most popular concepts of Process Philosophy, it is a worthwhile scholarly endeavour to determine what function precisely Whitehead wanted creativity to perform within his comprehensive theory. Weber distinguishes between strong concepts and weak concepts of change and concurs that Whitehead's notion of creation uses the weak concept, which relates back directly to Plato. Interestingly, the notion of creativity Whitehead substitutes for creation in his later, more systematic works operates on another level and has more structural similarities with the philosophy of Plotinus than with the thought of Plato.

Taken together, these articles link together to provide a new perspective on the relation between Neoplatonic thought and modern Process Philosophy, based on a number of structural and thematic similarities. As becomes obvious, it is equally valid to focus on the elements of Neoplatonism that make it a precursor to modern thought as it is to focus on those elements of Process Philosophy that clearly make it a successor to the tradition of Neoplatonism. Philosophy is still alive.

Aljoscha Berve
Düsseldorf, October 10th, 2018

THE END OF FINAL CAUSALITY IN PLOTINUS' PROCESS UNDERSTANDING OF NATURE AND ORDER

MICHAEL F. WAGNER

The natural world seems at times conceptually and epistemically a very messy place for Plotinus. The natural world, as seen through the lens of his Neoplatonism, should be a place where rationality and order reign supreme and uncompromised. And yet, Plotinus seems at times to struggle mightily to conceive and depict it so. Indeed, he seems at times to understand it to be quite otherwise.[1] However, this divergence between the way the world "ought to be" and the way it actually is does not disappear when we look at it instead through the lens of Modern science. The natural world is conceptually and epistemically a messy place for Modern science as well.

Two examples are Galileo's law of the pendulum (which fails to describe exactly the actual behavior of any actual pendulum in the actual world)[2] and the so-called three-body problem (which challenges the computational applicability of Newton's equations for any universe with more than two physical bodies in it – hence in the actual world, too, solar and celestial orbits wiggle, and planets' axes wobble; equinoxes change and vary, and spaceships have to adjust their headings).[3] Or, for a more prosaic consideration, the convergence of reasonably premised engineering calculations, of reasonably faultless concrete and steel materials preparations, and of reasonably designed and executed construction processes required for an actual bridge actually to stay up, or for an actual skyscraper to

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[1] *e.g.* II.3.12, II.3.17, III.2.7, V.7.2, V.9.10, V.9.14, VI.7.7.
[2] As James Gleick indicates, the law/actuality discrepancy may be tiny at low amplitudes of a pendulum's swing but "it is there, and it is measurable even in an experiment as crude as the one Galileo describes" [Gleick (2008), 41].
[3] This term for the (unresolvable) problem is thought to date at least to Jean d'Alembert and other Paris mathematicians in the 1740's. The seemingly stable, persistent (more or less) geometries of solar and celestial orbits, for example, are said to be "attractors" [see Gleick (2008), 139-150].

withstand an actual earthquake or a hurricane, still on occasion might just
not be enough.

Information Theory, Stochasticism, Chaos Theory, Supersymmetry,
Complexity Theory, Emergentism, Attractant Theory, Fractalism are just a
few of the approaches and concepts one comes across in post-mechanistic
attempts to confront and describe scientifically the natural world as it
actually is. Here, I shall use and adapt several insights and notions from this
realm of "new science" to help disentangle and explicate this troublesome
aspect of Plotinus' *Enneads*, including especially my notions of ontic phase-
shift, vertical emergentism, and a vertical-horizontal feedback loop in the
generation and maintenance of the natural world – and, later, of order and
lawfulness as expressions of symmetry. In what follows, the first two
notions will help clarify and explicate the nature of the natural world's
seeming messiness (indeed, why it in fact is unavoidable) and the third (and
fourth) will help us understand Plotinus' response to it.

1. Sufficient Causality and Plotinus' Vertical Emergentism

All real causality for Plotinus is vertical causality – that is, it is solely
exercised by and entirely explicable in terms of his three primal causal
principles (the One, Intellect, and Soul) and their foundational or
"underlying" existential causality (*hypostasis*).[4] By the lens of Plotinus'
Neoplatonism, accordingly, I have in mind his doctrine of the *hypostases*
and their vertical causality in particular of the natural world of Becoming.
One way to think of Plotinus' doctrine of vertical causality is in terms of the
Modern notion of *the principle of sufficient reason*, which posits that
everything that exists or occurs in the natural world has a cause and its cause
is sufficient to explain (to bring about, to be the cause of) that effect. In these
terms, Plotinus' doctrine of vertical causality can be summarized as the
thesis that the *meta*physical order of his three *hypostases* provide the needed
(sufficient) explanation of everything that exists or occurs in the natural
world. An important corollary of this for Plotinus is his *essentialism* –
summarized by his insistence that everything here (in the natural world) is
already contained there, in the vertical hypostatic order of real causes.[5]

What my *feedback loop* conceit denotes as the horizontal order is the
spatiotemporal universe of natural existents and their behaviors, processes,
and interactions. One way to begin addressing the conundrum over the
natural world's seeming messiness is to note that Plotinus' (vertical) lens at

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[4] see Majumdar (2007), 78-87.
[5] *e.g.* II.4.8, 19-26; IV.3.12, 27-28; V.7.3, 10-12.

times seems insufficient[6] in particular when occluded by his *emergentism* – inasmuch as, on the one hand, it sees everything in or pertaining to the world of Becoming to be outcomes of (to be effects explained by) his essentialistic order (together with higher, more encompassing – *supra*-essentialist, we might say – principles also established by or implicit in the vertical order) while, on the other hand, it recognizes that these outcomes constitute a new and different (and spatio-*temporal*) order of existence. For, because of this, as we seek to understand the vertical order of real causes and sufficiently explain the natural order in terms of it, although everything in and about the natural world comes from (is ontically grounded in and caused by) the hypostases, an epistemic corollary of the ontic phase-shift (and resulting emergentism) that occurs when that "everything" is no longer in the vertical order but instead now constitutes the horizontal order is that, at any given time in the spatiotemporal progression of natural existence, that determination and causality can be discerned and understood to have actually determined and caused only what has actually existed and occurred until then. But, what if "now" natural things find themselves in novel relationships, existing in or amid novel environmental conditions and relationships? And this is always possible (maybe even inevitable) in Plotinus' Neoplatonism because the ontic phase-shift effecting and engendering the natural order does not somehow just add spatiotemporality to the vertical order (or its contents) but, rather, constitutes a further descent from it.

Plotinus' third hypostasis (Soul) engenders the spatiotemporal order by (or as) a final descent into multiplicity from the nonspatiotemporal order of the hypostases, a final fall which corresponds to an epistemic descent from intelligibility into sensibility. My notion of an implicit emergentism in Plotinus' understanding of Becoming is apropos inasmuch as *emergentism* denotes the possibility that as a system becomes more complex or diverse (or when a new condition is added to a system or an existing condition changes) new phenomena may manifest in the system (or it may acquire new characteristics) which were and could not have been expected (or predicted) – and so which do not seem (fully) explicable – just knowing or given the system's previous condition.[7] But, why should there be even the

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[6] For a complementary perspective on these issues to the one I take here, see Wagner (2002a), 284-313. Lloyd Gerson also explicates some of the issues I address here by introducing and developing his notion, "that 'y is the logos of x' means either: 'x is virtually y' or 'y is virtually x'" [Gerson (2012), 18] and infers from his analysis in part that for Plotinus "no *logos* of anything in nature could be explanatorily adequate, since nature itself is the last in a line of *logoi* leading to the One" (*ibid.,* 29).

[7] In complex-systems theory, emergence relates to what is predictable and what

possibility of this happening in Plotinus' Neoplatonism, given its ontology wherein all (subsequent) existence comes from the One?

In one sense, at least, this occurring as a result of the hypostatic order's final engendering of the horizontal order is not as such surprising. Equally significant, even dramatic, ontic phase-shifts already occur in Plotinus' vertical order itself – most significantly when the absolutely unbounded One's existential outflow and effective potency becomes Intellect, and when the archetypal principle of order and lawfulness It thereby becomes (Intellect) engenders or becomes Soul. It lies beyond my scope here to explicate precisely how or why these two dramatic (ontic) phase-shifts occur in the vertical order of Plotinus' hypostases. My two central points here are, first, that this happening upon the One's existential outflow finally engendering or descending into sensible multiplicity (the natural order, or world of Becoming) is in fact presaged within the vertical phase of that outflow itself; and, second, that while my ontic phase-shift notion may somewhat reconceptualize what happens when for example that outflow becomes Intellect and then Soul it thereby captures what Plotinus indeed abundantly describes to happen in his accounts and descriptions of his *hypostases*. The One's outflow does not somehow just become Intellect (and then Soul). Rather, Intellect emerges from (or within) it; and such that it has its own emergent properties and character (*e.g.* its One-Many-ness) – and then likewise regarding Soul.

Conceptualizing some of what transpires in Plotinus' vertical order as ontic phase-shifts helps us understand how he is able to avoid postulating any sort of contrary principle of existence to the One, to Intellect, or to Soul. To see this, let us extend one of Plotinus' metaphors for the One's existential outflow, that of water streaming from its source [I.7.1, 16]. Suppose this water constitutes a river which as it flows down a rocky and crevassed

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actually happens. For example, a computer program qualifies as a "complex system" when it "exhibits behavior that is not predictable... behavior [that] was not programmed in from the beginning; it emerged as the program operated" [Roetzheim (2007), 5]. This does not mean that the computer is somehow not following its programming or that its programming has a "bug" in it. A subclass of computer complex-systems are ones programmed with underdeterminate rules which then through feedback adapt or improve their own programming relative to some parameter, some "success" condition; and, too, unpredictable behavior, when repeated, can forge its own pattern, even become a 'stable' feature of the system. Steven Johnson suggests that emergent behaviors "are all about living within the boundaries defined by rules, but also using that space to create something greater than the sum of its parts" [Johnson (2001), 181] – a conception not entirely unlike what I propose regarding Soul's ontic mediation between archetypal Intellect and its own instantiations and adaptively engendering "behaviors".

mountainside becomes an as it were one-many of various currents, turbulences, eddies, and tributaries (metaphorically becomes Intellect) and then spreads and washes across a wide flood plane and cascades over a high canyon rim (metaphorically becomes Soul) to fill a wide basin at its bottom (metaphorically engendering the natural order). A chief difficulty with this extended metaphor, however, is that there is no rocky and crevassed mountainside, no flood-plane or canyon rim, no basin at the canyon bottom for it to fill – that is, there are no analogues to these external things and causes – in Plotinus' vertical order. There is only the existential outflow (and its implicit powers or potency) and what *it* does, what happens to it from within it. This is why I characterize Intellect and Soul as owing their distinctness as hypostases from the One (and from each other) to *ontic* phase-shifts in the One's existential outflow.[8]

Plotinus, especially pertinent here, does not posit a preexistent material stuff or even a "receptacle" as a cause of the natural order's materiality. His preferred metaphoric imagery sees it more akin to a mirror or a darkness upon or into which soul projects its sensibly material effects – *i.e.* engenders the natural order.[9] This imagery aside, a final fall into multiplicity – and therein into differentness, other-than-ness, contrariness, unorderlyness, newness, and the like – in part *defines* the natural order in contradistinction from the vertical order. This novelty, unordinariness, or the like, does not (cannot) effect or change the vertical order of the hypostases, which rather reacts or responds to (or extends to encompass) those conditions and relationships and, in so doing, provides for their outcomes – hence, my subsequent notion of a *feedback* loop.[10]

Plotinus enjoins final causality in characterizing this adaptively inclusive extension of vertical causality to encompass horizontal conditions, phenomena, and actualities. His overarching conception is that nothing ever does happen in the natural world but that the outcome (what actually does happen) is constrained by (explicable in terms of) the One and what follows vertically from It, even if we are not always able to recognize or understand

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[8] A more prosaic illustration of the phase-shift notion is when (liquid) water becomes ice, or instead steam. At some "tipping" or "shifting" point in temperature (molecular energies) what was liquid becomes solid, or vaporous. Or, when meteorological conditions come to a tipping- or -shifting point and form into a hurricane.

[9] see section 4 below.

[10] To anticipate another notion I shall use, Steven Johnson observes that feedback "is not solely a software issue, or a device for your furnace. It is a way of indirectly pushing a fluid, changeable system toward a goal. It is, in other words, a way of transforming a complex system into a complex *adaptive* system" [Johnson (2001), 139].

this (and in what way this is the case) except retrospectively, only subsequent to our sensibly discerning and intelligibly analyzing the actual outcomes and (any) new cosmic conditions and relations which may have emerged. Relating final causality to the vertical order at all, though, may seem a non-starter inasmuch as it is standardly conceived to be entirely a horizontal causality notion, relating first and primarily to the natures or essences of natural things and (pre)determining the outcomes or "ends" of their natural development, behaviors, and interactions. But, this conception of final causality is a major source for the seeming messiness of the natural world – wherein (horizontal) final causality sometimes (perhaps even oftentimes) finds itself comparable to Galileo's aforementioned law of the pendulum in its (only loose or partial) applicability or fit to actual cases in their actual environments.[11] Rather than jettisoning final causality, however, Plotinus maintains that it must express or tell us something about the vertical order and its (exclusively real) causality, even while it does allow us to think of a natural world in which for example even the most carefully formally and teleologically conceived or engineered essence might yet (like the actual-world bridge or skyscraper in my prefatory remarks) find itself seemingly unprepared or inadequate in the face of actual conditions.

2. Archetypal Order and Final Causality in Plotinus' "On the Heavens" Trilogy

Plotinus' remarks on the natural world are not universally disconcerting. The natural world for Plotinus is overall a beautifully complex and sublime realm. He avers, for example:

> what reflection [*eikona*] of that world [the archetypal realm] could be conceived more beautiful than this of ours? What fire could be a nobler reflection of the fire there than the fire we know here? Or what other earth than this could have been modeled after that earth? And what globe more minutely perfect than this, or more admirably ordered in its course, could have been conceived in the image of the self-centered circling of the World of Intelligibles? And for a sun figuring the Divine sphere, if it is to be more splendid than the sun visible to us, what a sun it must be! [II.9.4, 26-32 MK][12]

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[11] Aristotle just accepts that "clearly mistakes are possible in the operations of nature also [*i.e.* as in human art]"; and he is satisfied with empirically discerning something regarding a thing's nature just when a certain outcome seems to occur "always or for the most part" [*Physics* 199a35 & 199b24].

[12] MK = MacKenna translation. Line(s) numerations are to Armstrong's edition of

But, while this should give us pause not to read more into his seemingly contrary remarks about nature than is absolutely necessary, he is well aware of perspectives (Gnosticism, for example) which see it differently. More significantly, Plotinus seems in fact to consider one realm of the natural world an at least partial exception to its alleged messiness – *viz.* the heavenly realm consisting of the stars and planets, and their heavenly circuits. Plotinus' treatment of this realm first by itself, in which regard it seems exempt from all the messiness, and then insofar as it may be thought to have (horizontally) causal effects and influences on the sublunary realm and its denizens, in which regard it is not, says much about his overarching conception and approach to final causality.

Limiting my discussion to themes most pertinent to my topic, the first of Plotinus' trilogy of treatises on the heavenly realm (*Ennead* II.1) asserts the continuity (the ontic unity) of the heavenly and sublunary realms so that they indeed constitute a single natural order, principally by arguing for their common materiality. His main target is the Aristotelian notion of a special fifth (heavenly) matter not found in the sublunary realm, in virtue of which the heavenly bodies are in themselves immune to change, alteration, or deterioration [II.1.2, 14]. Indeed, he argues, even the atomistic notion of material bodies as, so long as they persist, continually renewing or replacing their elemental constituents is consistent with thinking this way about the heavenly bodies. Of particular relevance in his argument is his doctrine of soul as present to and operative in the organization and maintenance of natural bodies by virtue of its sustaining causality [*hyparchein*], so that the persistence of heavenly bodies is explained rather by their souls' greater, higher, purer[13] power and potency [*dynamis*] than by some special sort of matter [II.1.4, 15-17].

The second treatise in this trilogy (*Ennead* II.2) proceeds to the Hellenistic conception of the spherical cosmos and the attendant circularity of the heavenly circuits. Plotinus topic is two-fold: Why the (circular) heavenly circuits? and Why is not all sublunary motion also circular? His arguments on these questions make a couple points relevant here: First, the metaphysical relationship between a soul and its subordinated body is one of omnipresence. Just as particular bodies (including the heavenly bodies) have souls, so too does the cosmos as itself a single body (a continuous spherical mass) have a soul. This cosmic soul, accordingly, is equally present, potent, and operative everywhere (and everywhen) throughout the cosmos [II.2.1, 40-45] – so including the sublunary realm as well as the

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the Greek text.
[13] *katharon kai pantos hameinonon*: II.1.4, 9. See also II.1.5, 17.

heavenly. Secondly, Plotinus argues that this same cosmically omnipresent soul also provides for the material unity (continuity) of our cosmos by effecting a universal "intertwining" of all its parts and constituents [II.2.3, 1-3], further establishing that the two realms indeed constitute (are but two parts of) a single causal order.

Plotinus' adaptations of and references to diverse (Classical) scientific notions in various contexts – above, for example, the atomist replenishment theory of bodies, and the (perhaps Stoic) notion of a universal cosmic property or condition grounding horizontal causality – is itself a significant point. Though Plotinus' thesis that the immediate hypostatic underly of the natural order consists of soul-potency(ies) preferences an essentialist approach in his understanding of the natural order, his conception of sensible materiality allows for a diversity of scientific conceptions of that materiality and for a diversity of conceptions of horizontal causality and its lawfulness. [14] But this, too, is grounded in Plotinus' *Enneads* in his treatment especially of his hypostatic (archetypal) principle conjointly of human understanding and of natural order and lawfulness, (Intellect), inasmuch as while explications of Plotinus' Neoplatonism tend to focus on the One as "beyond Being" – beyond human understanding and conceptualization – Plotinus' Intellect is in its own way quite mysterious and opaque to human cognition and understanding (even while it underlies and guides it). [15]

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[14] see Wagner (1996), 164-167. Arguably, Plotinus' preferred conception of horizontal causality or causal relations relies on the Stoic notion of cosmic *sympatheia* as he grounds this vertically in the nature and powers of soul [see Gurtler (1988), Chapter 3; also Rappe (2002), 79-81]. Still, given the diversity of ways in which Plotinus allows us to analyze or investigate sensible materiality, sensibly material bodies, and their causality and relations, I propose elsewhere we think of sensibly real things as 'metaphysically polymorphic' in Plotinus' Neoplatonism [Wagner (2002b), 33].

[15] For exegetes and commentators, of course, Intellect's mystery and opacity begins with Plotinus' own statements and discussions regarding it. Apart from his discussions of the Dyad and the five Platonic genera (which are hardly narratively self-evident themselves), and Its being-from and contemplation-of the One, when it comes to Its actual contents Plotinus tells us mainly that "the Intellectual-Principle is all and therefore its entire content is simultaneously in that identity... an identity well pleased, we might say, to be as it is; and everything, in that entire content, is Intellectual-Principle and Authentic-Existence" [V.1.4, 21-27; *cf.* also VI.4.11, 15-17]. Intellect's one-many-ness also must somehow be the source of not only soul but therein also of the plurality of souls I'll be addressing in section 4 below [IV.8.3, 7-16] and such that insofar as a sensibly material body instantiates a certain form *everything* about that body is contained in and determined by its Reason-Principle [II.4.8, 19-26]. As I have mused elsewhere, Plotinus' remarks on Intellect's various and somehow diverse contents overall leaves one unsure whether to think of them

Plotinus' own preferred approach comes to the fore in the third treatise of his trilogy on the heavens (*Ennead* II.3). The treatise's opening argument is that the most distinctive feature of the heavenly realm is its absolute adherence to our established (*i.e.* to Plotinus' Hellenistic) understanding of the heavenly bodies' (predictable) relative positionings in and invariant circular motions through the heavens; and this cannot be explained just by appealing to the souls Plotinus' essentialism associates with each of the heavenly bodies:

> as if there were no Sovereign Unity [*heni to kurion*], standing as source of all the forms of Being in subordinate association with it, and delegating to the separate members, in their appropriate Kinds, the task of accomplishing its purposes and bringing its latent potentiality to act. This is a separatist theory, tenable only by minds ignorant of the nature of a Universe which has a ruling principle and a first cause operative downwards through every member. [II.3.6, 15-21 MK]

Plotinus just previously stated that the heavenly bodies do not find themselves in the sort of (natural) circumstances which makes them adversaries, in which they either suppress one another's natural (preestablished) behaviors or else must somehow strive to reach some sort of compromises in that regard [II.3.4, 9-13]. Plotinus' earlier argument for why not all sublunary motion is circular had been in part that, while circular motion is cosmic soul's preferred effect, the sublunary realm is just too jumbled, crowded and complex for it. On the other hand, he maintains, the heavenly realm admits of sufficient organization and an archetypal ordering of its motions so that it is patently evident that the heavenly bodies "stand to each other only as the service of the Universe demands, in a harmony like that observed in the members of any one animal form" [II.3.5].[16] In this context, the key point of Plotinus' above argument is that, while he endorses the claim that the heavenly motions and circuits can be explained in terms of the heavenly bodies behaving severally and individually just precisely as their souls' causality preestablishes for them, he insists that we not lose sight of the fact that they do so owing to a "Sovereign Unity" to which those souls, and so their bodies' motions, are subordinated.

At this point in the treatise, it is unlikely that this Sovereign Unity is the One Itself – or at least it need not be. Plotinus might have in mind the cosmic soul, given his preceding comparison of the heavenly realm to an animal

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as akin to a flight of geese (internally well-ordered in some manner) or more akin to a sack of cats (all jumbled together) [Wagner (2011), 470].

[16] In Armstrong's edition, this passage and theme is located instead in II.3.7, 19-24.

body. Even then, however, this would indirectly invite us to think of what Plotinus designates as the "archetypal cosmos" – *i.e.* Intellect – inasmuch as this Sovereign Unity does not pertain merely to the fact that the (heavenly) cosmos *is* a unity. However roomy the heavenly realm may be thought to be for however many heavenly bodies happen to reside in it, their motions and circuits must still be organized and (properly) ordered relative to one another if, for example, Venus is to stay out of Jupiter's way and Orion's Belt is to remain well-ordered as, well, Orion's Belt. And, establishing and imputing higher-level organization to lower-level causal operations is a primary function of, or is grounded in, Intellect.

It is unclear precisely at what point in *Ennead* II.3 Plotinus intends his discussion to transition from the heavenly realm to extend to the entire cosmos, to apply also to the sublunary realm. The next couple of chapters draw some conclusions from the foregoing which surely do apply to the heavenly realm by itself; but they do so in the context of entertaining the possibility not merely of predicting celestial phenomena but of prophecy regarding future events owing to the heavenly realm's causal power(s) and its participation in the cosmos' single causal order – of predicting certain effects or influences heavenly bodies might be thought to have on individuals, life, and circumstances here on Earth.

Perhaps, then, these chapters depict what we should expect if the entire cosmos were indeed like the heavenly realm, so that:

> All things must be [causally] enchained; and the sympathy and correspondence obtaining in any one closely knit organism must exist, first, and most intensely, in the All ... so in the All each several member has its own task... Thus each entity takes its origin from one [sovereign] principle [*archein*] and, therefore, while executing its own function, works in with every other member of that all from which its distinct task has by no means cut it off. [II.3.7, 16-19, 23-25 MK]

And yet, matters are not this clear cut. For example, apart from observable phenomena which may be localized in the heavenly realm itself,[17] the sorts of affects diviners and astrologers attribute to the heavenly bodies and celestial phenomena are, Plotinus argues, more symbolic than real, and indeed "our task [as human beings] is to work for our liberation" from all such celestial influences, whether real or symbolic [II.3.9, 18-21] – and from individuals who tout and prophecy them – even though the causal unity of the cosmos implies that "we must admit some effective power in that circuit [the heavens] itself" [II.3.10, 8-9].

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[17] Eclipses and the equinoxes would presumably be examples.

Plotinus explains that the lack of causal necessity regarding the heavenly bodies' affectiveness on the sublunary realm and its denizens may be partly explained in terms of a principle that (horizontal) causal influence weakens with distance from its source [II.3.11, 1-4]. But the balance of the treatise increasingly focuses, rather, on the simple fact that here (in the sublunary realm) neither the souls which his essentialism assigns to every natural body nor the collective outcomes and behaviors of those bodies seem to conform to or confirm the sort of pellucid exemplary order and causality we observe of and attribute to the heavenly realm. Plotinus depicts this as endemic to the sublunary realm, but not as due to it somehow diverging, departing, descending, or falling from the heavenly realm's seemingly more pristine archetypal cosmic condition. Rather, the sublunary realm provides us a more explicit and complete portrayal of the actual conditions and character of the natural order as such.

Plotinus does not renege on his insistence, for example, that soul only and always causally acts and, generates "on the model of the Ideas; for, what it has received from the Intellectual-Principle it must pass on in turn" but adds that in so doing it must address the conditions of materiality that distinguish and define the natural order [II.3.17, 13-14]. He, for example, just previously articulated his general conception of the natural order:

> All living [ensouled] things, then – all in the heavens and all elsewhere [in the sublunary] – fall under the general Reason-Principle [*kata logon*] of the All – they have been made parts with a view to the whole: not one of those parts, however exalted, has power to effect any alteration of these Reason-Principles [*logoi*] or of things shaped by them and to them; some modification one part may work upon another, whether for better or for worse; but there is no power that can wrest anything outside its distinct nature. [II.3.13, 35-39 MK]

Here, Plotinus also alludes to his thesis that, in addition to the distinction between cosmic soul and the various and diverse sorts of soul-essences related to particular bodies, these latter in turn admit of a vertical diversity (and of purity) with respect to their (degree of) potency or power(s).[18] Accordingly, recall his assertion in his first treatise on the heavens that the heavenly bodies are so persistent (maybe even permanent) owing to the strength or (degree of) hypostatic purity of their potency. Perhaps, though, the soul-essences of sublunary bodies are less so, or at least certain of their constitutive potencies (or power-parts) surely are; and, he adds, these are the souls or soul-potencies which seem to run afoul of the conditions of

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[18] see also III.1.8 and IV.3.6.

(sensible) materiality they encounter here in our more cluttered and complicated sublunary realm [II.3.13, 4-10].

But how, then, to account for the seemingly messy circumstances and affects of those conditions, given his above conception of the absolute authoritativeness of the Reason-Principle of the All and Its subsidiary Reason-Principles? Plotinus initially suggests two possible viewpoints on this. The first in effect just embraces and ratifies the sublunary realm's seeming messiness, accepting that "down here" the many various strands of (horizontal) causes and effects engendered by the various and diverse soul-power(s) operating in the sublunary realm indeed constitute at best a very "tangled web" indeed [II.3.16, 6-13]. The second seeks to "make Soul answerable" to all that in fact comes about and happens [II.3.16, 13-18].

Plotinus chooses this second viewpoint; and explicates it more fully by switching his image of the cosmic soul's governance from that of a single cosmic animal to that of a farmer – an individual confronted daily with uncertain and changing conditions:

> The Soul watches the ceaselessly changing universe and follows all the fate of all of its works: this is its life, and it knows no respite from this care, but is ever labouring to bring about perfection, planning to lead all to an unending state of excellence – like a farmer, first sowing and planting and then constantly setting to rights where rainstorms and long frosts and high gales have played havoc. If such a conception of Soul be rejected as untenable we are obliged to think that the Reason-Principles themselves foreknew or even contained the ruin and all the consequences of flaw... And [if] here it will be objected that in the All there is nothing contrary to nature, nothing evil. Still, by the side of the better there exists also what is less good... [But] perhaps there is no need for everything to be good. Contraries may co-operate; and without opposites there would be no ordered Universe: all living-beings of the partial realm include contraries. The better elements are compelled into existence and moulded to their function by the Reason-Principle directly; the less good are potentially present in the Reason-Principles, actually present in the phenomena themselves; the Soul's power has reached its limit, and failed to bring the Reason-Principles into complete actuality since, amid the clash of the antecedent Principles, Matter had already from its own stock produced the less good. Yes, with all this, Matter is continuously overruled towards the better; so that out of the totality of things... there is, in the end, a Unity[19]. [II.3.16, 30-35 MK]

Even the most knowledgeable and skillful human farmer, of course, might not accomplish everything with and for his crops that he initially had

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[19] Armstrong translates '*hen*' here simply to denote 'one universe'; but see my following gloss.

wanted, planned, and intended. Rather, he accomplishes the best possible outcome given, and by responding to, the various unanticipated and perhaps unfortunate and unwanted conditions confronting him. But, Plotinus' concluding remark – "so that out of the totality of things... there is, in the end, a Unity" – does not simply mean that somehow the universe remains intact and doesn't disintegrate, come apart, or the like. A tangled web is still at least, well, a web, however tangled. An apropos contrasting image would be, in virtue of the cosmic soul's expert artisanship in "weaving" nature's threads, that of a beautiful tapestry;[20] and of course a beautiful tapestry is not just a tangle of threads but *well-ordered* threads, threads ordered and woven into some (beautiful) pattern or design. Here, Plotinus' final phrase – "in the end, a Unity" – does refer us back to the primal causality of the One, but as this works its way downwards through the vertical order and Its phase-shifts (Intellect, and Soul) and it indicates Plotinus' ultimate solution to maintaining his vertical causality principle even despite the natural order's seeming challenges and messiness.

3. Symmetry, Lawfulness, and Plotinus' Process Understanding of *Theoria*

In Plotinus' vertical order the pivotal (ontic) shifting-points are, first, when the One's outflow – Its unlimited, unbounded effective power – in virtue of Its reflexive relation to Itself constitutes Itself into the Dyad (engenders intelligible matter)[21] and, second, when Intellect's consequent one-many-ness (in the guise of Soul) then "unfolds" its inwardly self-concentrated contents, in effect prepping them for instantiation. Here, the two most important notions to emphasize are the unboundedness of the One's causally effective power and, however we think of Intellect's contents, their implicit function as the archetypal source of absolute (lawful) order for Soul's subsequent effective (instantiating, engendering) causality. But how are these two notions even consistent with one another?

  One way to adjudicate the One's absolute unboundness and Intellect as

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[20] Another of Plotinus' images is the harmony of the strings in a well-tuned lyre (see III.2.2 & 17).
[21] see V.1.5, 7-9 & V.1.7, 1-27, and Dmitri Nikulin's gloss and references on this sort of account in the *Enneads* [Nikulin (1998), *91ff.*]. Consequently, Intellect's contents may be thought to come about dyadically, each of the first two becoming another two and this repeating again and again [VI.7.8, 22-25], and wherein Its inner, or inward, generation of Its contents is functionally explicable also by Plato's "highest genera" of Being, Same, Difference, Motion, and Rest [VI.2.7-8]. On this, see Wagner (1982), 53-55, 69-71; Slaveva-Griffin (2009), 91-94.

locus of absolute boundedness is by invoking the Modern notion that
lawfulness is an expression of some symmetry.[22] A *symmetry* denotes some
respect in which something remains the same despite certain changes or
differences in its condition(s) or environment.[23] The Newtonian principle of
gravity, for example, expresses a symmetry inasmuch as it tells us that
whatever changes we make (or envisage) concerning two bodies' masses or
spatial locations, the force relation between them remains just what the law
says it is. In everyday terms, gravity remains the same – it invariantly works
the same – no matter the two bodies' masses or locations. Similarly, a circle
is thought of as a highly symmetrical geometrical shape because we can
rotate it any degree in any direction, or relocate it to any other place, and it
still looks the same. It seems still just the same circle it was before.[24]

Of these two examples, the circle may initially be more instructive here.
Notice my saying that a circle is highly symmetrical. It is not absolutely
symmetrical. If we increase its diameter, it looks somewhat different. It no
longer is entirely the same circle. And, if we stretch it along a diameter-line,
it no longer is a circle but an oval or ellipse. Or, if we flatten its
circumference several places and "corner" the segments, it becomes a
polygon. This implies that we also can think of one symmetrical thing being
more symmetrical than another. A square, for example, is not as

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[22] see Golumbitsky & Stewart (1992), 26, 64*ff*. In the case of physical laws expressed
in mathematical equations, "the symmetry of the laws is reflected in the invariance
of the equation under a given mathematical transformation" [Sozzi (2008), 2]; but
the notion pertains also to such fundamental natural laws as for example the
principles of momentum conservation and energy conservation (Sozzi, 7-8). There
also can be hidden symmetries, where "the fundamental laws exhibit symmetry that
nature's manifestations do not" [Close (2011), 127].

[23] see Golumbitsky & Stewart (1992), 2-4, 28*ff*.

[24] A further relationship, between these two sorts of symmetries and the appeal of
symmetry in aesthetic experience, is evident in Archimedes' demonstration of his
law of the lever: "To balance a pair of unequal weights, the weights must be placed
at distances from the fulcrum that are in inverse proportion to their magnitude"
[Hirshfeld (2009), 79]. His demonstration represents a weight's magnitude geometrically
as a proportionately sized box (square) and begins by not only asserting but showing
that "equal weights situated equal distances from the fulcrum are in equilibrium"
(*ibid.*, 80). With this as a baseline for what equilibrium looks like, it then becomes
obvious that when one of the boxes is, say, doubled in size the configuration simply
does not look in equilibrium anymore until it is moved half-way closer to the
fulcrum, whereupon the configured depiction again looks right (balanced,
symmetrical, harmonious). There are more details to his demonstration than this; but
it is a striking aesthetic affect. In the *Enneads* this double relationship, between
lawful- or archetypal-symmetry and shape-, form-, or order-symmetry, and then
aesthetic experience is perhaps most evident in Plotinus' remarks on the heavens.

symmetrical as a circle because if one rotates it, say, 45-degrees it no longer entirely looks the same, the way a circle would. In a similar vein, though, we can say that Einsteinian relativity-principled laws express a deeper (natural) symmetry than Newtonian laws.

How does this pertain to Plotinus' One and Intellect? The sense in which a circle may be thought of as highly symmetrical implies that for something to be absolutely symmetrical it must be entirely invariant regardless of what changes one might impose (or envisage imposing) on it, on its condition or environment. And this indeed describes Plotinus' One: Another of the ways in which Plotinus invites us to think of the One is as akin to an absolutely indivisible (dimensionless) point – for example, as geometry invites us to think of the absolute center of a circle [I.7.1, 24] – inasmuch as a dimensionless point is indeed absolutely symmetrical. There's no possible way to change a dimensionless point without it remaining just what it is – still dimension-less, and so a point. Just so long as it *is* nothing but dimensionless, it is invariant – and so absolutely symmetrical.[25]

If we then invoke the phase-shift notion to characterize how a dimensionless point (or a set of dimensionless points) may constitute or engender geometrical shapes, another implication is that it (or they) can thereby constitute (engender) any sort of geometrical shape of whatever degree of symmetry a particular shape has.[26] The absolute symmetry of the dimensionless point, we can say, becomes the source and "true original" from which particular geometric shapes acquire whatever degree of symmetry they have (even while not losing any of its own, absolute symmetry). And so, when we think of Intellect as the archetypal source of all (and only) order and lawfulness, we can think of whatever that order or law(fulness) may be as similarly an expression of (a phase-shift from) the absolute symmetry (albeit therein lessened, weakened, or descended) possessed by the unbounded power which is the One. The One's own

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[25] Why, then, do we typically not consider an indivisible point to be something 'symmetrical'? Golubitsky & Stewart use instead the example of a uniform featureless plane and note that pattern formation and our recognition of it can actually be thought of as a matter of *symmetry-breaking* (or -lessening) rather than creation – for example, the greater symmetry of the plane is in fact lessened when (a portion of it) is circumscribed into a circle: "the typical result of a loss of symmetry is [still a] pattern...because only seldom is *all* symmetry lost. An oddity of the human mind is that it perceives *too much* symmetry as a bland uniformity rather than as a striking pattern...We are intrigued by the pattern manifested in circular ripples on a pond... but not by the even greater symmetry of the surface of the pond itself" (5).

[26] Indeed, Plotinus' account of the One 'becoming' Intellect in VI.1.7, 1-27, says almost just this.

boundlessness, for Plotinus, is thus an unlimited source and ground for order and lawfulness – and so, ultimately, also for the particular beautiful pattern and design manifested in nature's tapestry.

Plotinus' farmer, in his image of the cosmic soul's maintenance efforts and causal labors in the sublunary realm, is not a magician or a diviner. He uses no wizardry or sorcery or other occult methods or abilities.[27] Knowledgeable and skillful at his agriculturalist art, the farmer makes maximal use of his crop's own abilities or potencies (perhaps also learning more about them along the way) and adjusts aspects of their environment as best he can (less irrigation and increased field drainage in wetter times, for instance) to maximize the crop's yield – or, so that the tapestry of his crop at its maturity is as beautiful as he is able to make it.

My suggestion here, that perhaps Plotinus' knowledgeable and skillful farmer also is learning about the natures he cultivates (and their potencies) is apropos the soul's circumstance and operations in the natural world more generally. One way in which the soul contrasts with the (human) farmer, though, is implicit in Plotinus' insistence that the soul does not "calculate" but only "passes along" what the hegemonic Reason-Principle (and Its subordinate Reason-Principles) dictate for it [II.3.17, 11-17]. In *Ennead* III.8 Plotinus explicates one of his preferred notions for explaining the phase-shifts (as I have termed them) which occur in his descending vertical order from the One: his notion of contemplation (*theoria*).[28] And he insists there, too, that the contemplative activity of soul, in virtue of which it engenders, maintains, and operates in the natural world, should not be thought of as the sort of contemplation one might associate with our own reasoning faculties – for example, when we plan how to do something [III.8.3, 13-24]. In our intrepid farmer's case, this latter sort of contemplation might involve him imagining the various possible outcomes of the various ways in which he might respond to the environmental conditions challenging his original intentions for his crop, or the various ways he might modify those intentions or his original planning because of them. Such an anthropomorphic conception of (cosmic) soul's contemplation, however, misrepresents its function and its relationship to Intellect and to the natural order.

Plotinus' comment (quoted earlier) that soul needs to be answerable to the conditions of sensible materiality does not mean that it needs to rethink what it is or has been doing, revise or reenvision its plans or intentions, or the like. It would be more appropriate to say that the soul needs to be

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[27] Plotinus, recall, had advised us to liberate ourselves from such conceptions.
[28] see Majumdar (2007), 90-96.

answerable in the sense of being *responsive to* those conditions and what emerges due to them. Soul already knows or possesses its response; and it does so because of its relationship to Intellect. This implies that the archetypal cosmos (Intellect) was in fact prepared, or set up, for those conditions already, all along. Indeed, perhaps the most important epistemic feature of Plotinus' understanding of contemplation as applicable to his vertical order is when he sees it as an attempt to fully understand, or truly know, one's previous or higher vertical antecedent – the One in Intellect's case, and Intellect in Soul's case.

When Plotinus states in his above assertion of final causality's primary end (*telos*) that everything which emerges as actual phenomena in nature must be thought of as potentially already in the Reason-Principle(s), he primarily means two things: First, its appearance (coming-to-be) as something new, unanticipated, seemingly obstructive or problematic, is a consequence of sensible materiality. Second, he is not attributing an Aristotelian passive potentiality to Intellect, or its inherent Reason-Principles. He is rather talking about soul, and its epistemic relation to Intellect – which at (or up to) any given moment of its engendering the natural order, as it contemplates Intellect and (or) Its Reason-Principles, is only partial (or, Plotinus' preferred description, weak and somewhat obscured).[29] Soul's implicit understanding (in virtue of its vertical lineage) of the relation between Intellect and the One, however, also guides its attempt to more completely and truly understand Intellect – and its Reason-Principle(s) – in response to the feedback implicit in the natural order's actual unfolding of Intellect's archetypal causality.

So, let us replace Plotinus' image of the farmer with the image of the natural scientist for an epistemically more apropos analogue to Plotinus' cosmic soul: Intellect, as archetypal law and order giver in relation to the natural order, translates or "shifts" the One's unbounded, absolute symmetry into specific sorts of symmetries (grounds for natural laws and order); and the soul, implicitly recognizing that, seeks to more fully understand and truly know what those symmetries in reality are – as they in fact do encompass all past and future natural phenomena and conditions, including ones which may at the time seem (metaphorically) new or challenging to the soul in virtue of the relative weak-and-obscured-ness of its contemplation. Just as gravitational attraction is (what is termed) a symmetry-characteristic of the Newtonian cosmos and circularity is a symmetry-characteristic of the geometric realm, so too is power (effective causality) a symmetry-characteristic of Plotinus' vertical order. Consequently,

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[29] see also V.1.6, 45-48.

soul's deeper and truer understanding – its increasingly perhaps at least less weak and obscured contemplation – of Intellect, as natural phenomena and conditions require and challenge it to respond, automatically translates into causally effective maintenance and governance of the natural order.

In Plotinus' vertical causality doctrine, Intellect – as a consequence of its own emergent character in relation to the One – is the "archetypal cosmos" which grounds Plotinus' essentialism and is the source of all lawful order. So, too, soul emerges in the vertical order (as a consequence of its relation to Intellect and the One) in part as the locus of final causality insofar as it not only generates the natural (spatiotemporal) order but can be thought of as responding to the conditions of sensible materiality. While Plotinus' treatment of this in *Ennead* II.3 focuses on the hegemonic operations of the cosmic soul, we saw in Plotinus' earlier treatment of the heavenly realm that the cosmic soul does not operate somehow in isolation but alongside and cooperatively with the soul-essences of the various resident bodies constituting the natural world – as in effect all of these souls (or, each in its own way) attempt to understand Intellect's archetypal function and contents in a way which increasingly (seemingly) adapts it to, extends it to encompass, the ongoing order of Becoming. Moreover, just as this has us, when "looking up" towards Intellect and the One, thinking of their relationship as a dynamic relation between the One's unbounded power and absolute symmetry, and Intellect's contemplation of this in engendering its own archetypal one-many-ness, so too does it have us thinking of soul's "passing on" Intellect's archetypal causality as epistemically a dynamic process in which it adapts or deepens its understanding of Intellect as it "looks down" on the natural order and automatically, contemplatively responds to its conditions and challenges.

Plotinus' image of the farmer managing his crop is meant to suggest a (cosmic) soul which is (continually) responsive to whatever conditions emerge as the natural world comes-to-be and progresses. To be sure, that soul has an intent, a purpose – *viz.* always to respond so that "in the end, there is Unity." But, however successful or unsuccessful our human farmer may be in sustaining his crop and maximizing its yield, the cosmic soul will have done its job. For it, nature's tapestry will be beautiful, whether or not our actual (human) farmer likes the outcomes it depicts. Here in the sublunary realm, however, one wonders whether the same can be said for sublunary-bodies' soul-essences[30] – for example, those of the seeds and plants constituting our farmer's crop, the natural bodies actually confronted,

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[30] Regarding the 'edifice' of soul – its main levels and vertical sorts – see Majumdar (2007), 44-56.

challenged, and affected by the storms or drought or other such conditions nature may throw at them.

4. Soul-Essences and Sensible Materiality in Plotinus' Adaptive Teleology

The soul-essences of the heavenly bodies, we have seen, have two functions: maintaining their bodies' material integrity (unity) and moving them in preestablished ways. Plotinus' treatment of the sublunary realm is complicated also by the fact that the soul-essences of sublunary bodies simply have more to do, have more (and more complex) functions to perform. Plotinus generally relies on the Aristotelian tripartite conception of vegetative-nutritive, sensorial-motor, and rational-cognitive soul functions or potencies in these contexts [III.8.8, 13-16]. Already at the vegetative level, though, those functions have a more complex set of sensible materiality conditions and factors to respond to or handle in the sublunary realm. Just as cosmic soul's seeming adaptation or revision of its understanding of Intellect does not reflect any actual change in Intellect or Its archetypal causality, so too does Plotinus insist that the actual nature (effective potency and potencies) of soul-essences are in reality inviolable. But, then, how to explain for example a (seemingly) "ill organized material frame"?[31] – a constant possibility in our inferior sublunary realm.[32] Plotinus' treatment of this suggests that one explanation might be surrounding material conditions or (horizontal) causal affects, in effect rendering the soul's relation to its own body akin to our farmer's ontically distinct, vertically alienated relation to his beleaguered crops.

A deeper point concerns Plotinus, though. He also compares the sort of "ill organized material frame" he has in mind to an ill-tuned lyre. To be sure, a lyre might be ill-tuned (*i.e.* out of tune) because someone has messed with its tuning or something external has damaged a string, or the like. But, additionally, not only might time itself take a toll on the tuning or the strings, but the strings themselves might just be substandard or defective in some way – incapable ever of holding a tuning, or of being well-tuned in the first place. The tuner-musician can only do the best she can with what she has to work with (to tune) in the first place – just as what the farmer can reasonably expect and strive to achieve from his crop depends on the character and quality of the seeds themselves (and also of course the soil, and so forth) in the first place. Once again, Plotinus is not so much concerned with what

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[31] *somatos kakos syntethentos*: II.3.13, 44.
[32] compared to the heavenly realm and its celestial bodies.

level of materiality or material structure is pertinent to a particular case or example. The deeper point concerns, rather, the conditions of sensible materiality in general. Underscoring this, Plotinus also is not concerned with the fact that any given general sort (species) of soul-essence will relate to bodies exhibiting a wide variety of differences. Human beings come in many shapes and sizes, and according to various criteria may be thought of as stronger or weaker, more or less disease resistant, and so forth. Plotinus' soul essences, however, are correspondently many and diverse.

Plotinus rejects Aristotelian essentialism and its conceit of "specific' differences".[33] In the case of twins, Plotinus concedes that were the twins indeed truly "identical" he would have to say that they somehow share the same Reason-Principle. But *any* differences between them whatsoever would be manifestations of different Reason-Principles. There are as many different Reason-Principles, he asserts, as there are different – or differences among – natural existents inasmuch as any "differentiation must be included in the archetypal idea, though [*i.e.* even when] it is not in our power to perceive the difference" [V.7.3, 12 MK]. He concludes:

> Are we, then, looking [even] to the brute realm, to hold that there are as many Reason-Principles as distinct creatures born into the litter? Why not? There is nothing alarming about such limitlessness in generative forces and Reason-Principles, when Soul is there to sustain it. As in Soul (principle of life), so in Divine Mind (principle of Idea), there is this infinitude of recurring generative powers, the Beings there are unfailing. [V.7.3, 19-24 MK]

The deeper point can be underscored further by emphasizing that nor is Plotinus motivated by something like the NeoAristotelian distinction between levels of secondary matter, which then are all to be distinguished from a primary matter of some sort. Something akin to the former notion (secondary matter) surely does at times enter into and nuance Plotinus' treatments of particular cases; but, comparing (sensibly) material existents in general to reflections (generated by soul) in a mirror, he argues:

> The [actual] reflections in the [in an actual] mirror are not taken to be real, all the less since the appliance [mirror] on which they appear is seen and remains while the images disappear, but Matter is not [something] seen either with the images or without them. *But suppose the reflections on the mirror remaining and the mirror itself not seen, we would never doubt the solid reality of all that appears.* If, then, there is, really, something in the mirror, we may suppose the objects of sense to be in Matter in precisely that

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[33] See Gerson (2002), *passim*.

way ... and that the seeming is to be traced to the Substantial-Existence of the Real-Beings... [III.6.13, 46-53 MK]

This said, however, Plotinus does inject a caveat into his discussion of twin and litter births, averring that every differentiation found among natural existents must have an archetypal cause *insofar as* their difference is "something more than a mere failure in complete reproduction of their Idea" [V.7.3, 6 MK].

We need, though, to distinguish two sorts of issues here. The first is whether sensible materiality in and of itself constitutes an apposite principle to the vertical order – whether it itself is a cause, or at least a "something," affecting the final engendering of the natural order – rather than an emergent aspect or condition of that engendered order itself. In this regard, Plotinus' above point regarding his mirror imagery may be underscored by considering a passage employing his darkness imagery, one which has been taken to imply that Plotinus does at times invoke a pure or primary conception of matter beyond, or that is not specifically, intelligible or sensible:

> There is not one place for Matter and another for Soul...the Soul's 'separate place' is simply its not being in Matter...that is that Soul is not moulded in Matter as in a matrix; this is the Soul's apartness. But the faculties of Soul are many...Matter appears, importunes, raises disorders, seeks to force its way within; but all the ground is holy, nothing there without part in Soul. Matter therefore submits, and takes light: but the source of its illumination it cannot attain to, for the Soul cannot tolerate this foreign thing close by, since the evil [*i.e.* 'darkness'] of it makes it invisible. On the contrary the illumination, the light streaming from the Soul, is dulled, is weakened, as it mixes with Matter which offers Birth to the Soul, providing the means by which it enters into generation, impossible to it if no recipient were at hand...and it turns to evil all that it has stolen, until the Soul finds strength to advance again. [I.8.14, 28-49 MK]

Overall, this passage comports with my explication thus far. Matter is not a matrix or receptacle, it is not at all a "something". Rather, especially in the sublunary realm cosmic soul and the diverse soul-essences operate under diverse conditions and in diverse ways, so that there are constant challenges to their engendering, effective operations, and which may be thought of as due to matter's appearance as a condition of that realm, which seemingly dilutes or weakens these souls' effective potency. But, then, what do we make of this matter-darkness as a recipient for what Soul nonetheless gives "birth" to – *i.e.* the natural order? How could this be consistent with Plotinus' above point regarding his mirror image?

A notion from current science again helps here. Current cosmology has it that our universe is expanding, and has been expanding since the Big Bang and (or) its initial inflation. But, where or into what, one might ask, is it expanding? The current scientific answer is that this is a misleading question. The universe is expanding in the sense that distances between various of its parts and constituents are becoming greater, and the extent of the universe itself is (therefore) becoming greater. But, it is not expanding any where or into anything. Or, rather, simply every where is expanding – that is, space itself is (what is) expanding. So far as natural existence is concerned, the universe always was, still is, and always will be just all of it – all there is. Metaphorically like Plotinus' invisible (nonexistent) mirror, our universe has an edge (only) in the sense of an extent. But whatever the farthest extent of its contents – its real, actual constituents – may be, that too is the farthest extent of the universe (the natural order) itself. In an analogous vein, what becomes illuminated is, before it is illuminated, dark (or darkness). Or, where there is now illumination, before there was darkness. In that sense, darkness is a (the) 'recipient' of light and what that light (effective power) engenders. Ontically, though, darkness merely denotes the possibility of light, or of further (or farther) illumination – just as in current science imagining that there somehow is more space out there, into which our universe (its constituents) might expand, can only denote the possibility of our universe continuing to expand.[34]

But, then, what is the (different) issue raised by Plotinus' notion of a mere failure in complete reproduction of an Idea (Reason-Principle)? Perhaps Plotinus' notion here is expressed elsewhere, when he avers:

> Ideas of individual men may be justified by the fact that the same feature varies from man to man, the simian type, for example, and the aquiline: the aquiline and the simian must be taken to be differences in the Idea of Man as there are different types of animals: but Matter also has its effect in bringing about the degree of aquilinity. Similarly, with differences of complexion, determined partly by the Reason-Principle, partly by Matter and by diversity of place. [V.9.12, 5-11 MK]

It is not entirely clear, though, that Plotinus' point here concerns sensible materiality in the same way that the possibility of mere failure in complete reproduction of [an] Idea does. Just as intelligible materiality emerges in

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[34] And so, too, "mixing" with darkness can here only be a metaphor for less luminous light. Frederic Schroeder argues that in fact "light is the master metaphor in Plotinus. All figurative language other than illuminationist imagery is to be qualified in the direction of fulfilling the conditions of illumination" [Schroeder (1996), 341].

Plotinus' vertical order when "unity has given way to duality, [so that] from that moment there is multiplicity" [V.3.15, 39 MK], sensible materiality is perhaps most distinguishable by the simple fact of its *sensibility* – of its relation to sensible appearances and human sense perception. The "effect" Plotinus has in mind here owing to (sensible) matter, accordingly, might be just the aquilinity's now actual (sense perceivable) extendendness, its degree of aquilinity referring to the consequent measurability of its length or its geometric angularity. In the case of a person's complexion, of course, (sensible) matter's seeming effect would simply be its actual (sense perceivable) color – how that complexion sensibly appears to us, or looks.

There is, though, one sense in which the fact of sensibility might itself imply a failure in complete reproduction of an idea, *viz.* when a certain (pre)conception of how that Idea ought to be reproduced (instantiated), or of how such a reproduction of that Idea ought to sensibly appear is presupposed. Plotinus' essentialism maintains that all properties and characteristics of a sensibly material body are contained in its Idea (Reason-Principle) – so including, for example, its size and shape and color. But, what does this mean, inasmuch as what its Idea consists of are archetypal determinants of the various sorts of effective potencies constituting that body's soul-essence? To say that a body's having a certain size or a certain shape or a certain color is contained in its Idea might mean something to the effect that its soul-essence's potencies in those regards are such that *one would expect* – or *in normal conditions* one would or has come to expect – its resultant (sensibly material) size or shape or color to be such-and-such, or so-and-so.

But, as we have seen, "normalcy" is always a risky wager where sensible materiality is concerned, holding reliable meaning for us (at most) only in relation to previous conditions and our experiential information regarding them. Identical twins, one growing up on Earth and another ("abnormally") on a planet exerting twice Earth's gravity, might share identical nasal-aquilinity and physical-height essence-constituents or -potencies, yet the latter twin might never achieve the degree of nose aquilinity or the physical height achieved by the former ("normal") twin – and so he might also be thought to incompletely reproduce that essence, or its archetypal Idea.[35] At the same time, though, sublunary (*e.g.* human) bodies are themselves highly complex entities and environments for their soul-essences to engender,

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[35] Interestingly, thinking of archetypal lawfulness as a certain determinate ('bounded') symmetry may make Golumbitsky & Stewart's point pertinent here, that "symmetry [also] means that, given some possible effect [of some given cause], all symmetrically related effects are also physically possible" [Golumbitsky & Stewart (1992), 11].

maintain, and manage. The most one can say regarding the maternal side of my own family, for example, is that individuals tend to have fairly light hair coloring which tends to turn mostly grey/white fairly young. The mistake might be to think of Plotinus' Reason-Principles and (or) the soul-potencies intent on instantiating them in, as it were, too rigidly archetypal terms.

There is, however, another (or further) sense in which one can think of a sensibly material body (an instantiation of some Idea) as deficient or defective, as failing to completely reproduce its Reason-Principle. While the most salient way in which the natural (horizontal) order constitutes a yet greater multiplicity may simply be because of the emergence with or in it of sensibility (of sensible appearances, and all that this entail regarding our five sense modalities, their attendant sensibles, and other such additional factors as perspectivalism, viewing conditions and the like), emphasizing that the phase-shift undergone by soul's archetypally grounded contents when they fall into sensible materiality entails also an epistemic shift from intelligibility to sensibility is important for understanding its distinctive materiality as well. That is, one aspect of sensible matter's materiality for Plotinus is its spatiotemporality – wherein its spatiality is a function of its spreadoutness (extendedness), as it therein relates to human sense perception. Another aspect is its seeming solidity, which Plotinus likewise identifies with another sensible phenomena – *viz.* its seeming resistance (for example, to touch-pressure or as we sense-perceive one such material thing interacting with another).[36]

What remains when we conceptually remove such sensible aspects as spreadoutness and solidity from sensible materiality is only our propensity to refer our sense-perceptual cognitions and judgments to individuals (*'ekasta*) presumed to be their subjects (*hypokeimena*) – and so also the "owners" or "underlies" (*hypokeimena*) of whatever we sense-perceive and judge of them. This cognitional descent on our part into a further realm, exclusively of individuals [*ta 'ekasta*: "the each-ones"], does provide a sort of logical end-point for vertical descent from the One inasmuch as in it multiplicity arrives at its own distinctive sort of unboundness (*apeiros*)[37] – a sheer many-ness, for example allowing for the possibility indicated in Plotinus' twins discussion of more than one (and so possibly indefinitely, unendingly many) instantiations of the same (any given) archetypal cause. But, unlike the real "greater multiplicity" endemic to sensibility and its phenomena, this further realm is not real.

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[36] see II.1.6, 48-51; II.4.6, 16-17; III.6.6, 33-36.
[37] see Slaveva-Griffin (2009), 39-41, 50-53.

Here, perhaps, we also can attribute further meaning to Plotinus' metaphor of darkness as a recipient of the vertical order's effective potency (light) – *viz.* when the vertical order is thought to fall yet further, this time owing to the intentionality of our sense perceptual judgments and related cognitive activities. For, no actual ontic causation or existential engendering is occurring here; but only our positing of subjects (*hypokeimena*) which we presume to underly sensible phenomena.[38] Here, there is only the unreal, we might say, "receiving" the unreals we (cognitively) project into it. Indeed, there could be no more appropriate or fitting recipient of our unreals (our posited individual subjects) than what is strictly speaking ontically unreal itself.

Still, it therefore comes as no surprise for Plotinus when sensible materiality seems to "produce from its own stock" actual phenomena which seem emergent or unexpected given a certain (partial) understanding of the archetypal cosmos and how the natural order instantiates it. A matter-like analysis of the sense-perceivable condition known as putrifaction,[39] for example, might reveal (lead us to postulate) the presence of individuals called maggots to be underlying the putrifaction. And in a case of mere failure in complete reproduction of [an] Idea, presumably this implies that there is something sense-materially different (posited by us) regarding the engendered body that one would not expect given a certain understanding of its archetypal cause – for example, the presence of (what we posit to be) a mole on what we think should be an unblemished cheek. Or, when we attribute the sensibly substandard lyre-string's inability to receive or hold a tuning to its underlying matter, and so think of its ersatz soul-essence as alienated from its own body (the sense perceivable string) and the deficiency or defectiveness thusly attributed to the string's underlying matter as due to some "mere failure" in the engendering soul's causal efforts to instantiate its Reason-Principle.

In these examples, of course, there may in fact be maggots underlying the putrifaction, which closer inspection might even reveal to us, or a cheek-mole indeed underlying the blemish; and we surely do see the lyre-string, even if not its own inner or underlying materiality as such. In such cases, though, it is the yet further underlying materiality we posit which is unreal.[40] They are (or may be) real corporeal or *sensibly* material things. But, in that

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[38] *Ennead* VI.1, accordingly, examines Aristotelian and Stoic categorial theory as attempts to analyze the ontic structure of sensible reality, or sensibly material bodies, from the perspective of the conjoint cognitive-sensory structure of sense perception (see Anna Zhyrkova's commentary on this).

[39] see IV.9.14, and James Wilberding's commentary.

[40] see Wagner (1996), 134, 170 n30.

regard, another of Plotinus' recurring themes explains:

> Soul governs this All by the plan contained in the Reason-Principle and plays in the All exactly the part of the particular principle which in every living-thing forms the members of the organism and adjusts them to the unity *of which they are the portions*... [Thus] surrounding every separate entity there are other entities, whose approach will sometimes be hostile and sometimes helpful to the purpose of its nature; but to the All taken in its length and breadth each and every separate existent *is an adjusted part*... [contributing] to the entire life-history of the Universe. [II.3.13, 4-14 MK]

    Ontically, what we commonly think to be individuals (including what Aristotle dubbed "primary substances") are instead portions, parts, or threads in the cosmic unfolding, in the ongoing fabric and tapestry of nature – perhaps ones which seem especially robust and persistent in various of their characteristics, behaviors, and own constituents or (sub)parts; but ontically just portions, parts, threads nevertheless.[41] To be sure, we might sometimes posit "subjects" of our sense experiences which are indeed and in fact just unreal.[42] What is unreal in its very conception, however, is our supposition (or positing) of a (potentially unbounded, unlimited, sheer-manyness) existential collection of (ontically) distinct and discrete individuals.[43]

    Still, what our propensity to posit ontically *faux* individual subjects to underlie sense-perceivable (sensibly material) bodies and phenomena is

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[41] As I have also stated: "The reality of corporeal existents resides mainly in their status as instrumentalities for soul-like movements or potencies of compositional forms and forming-principles; and the reality of qualitative [sensibly real] existents reside mainly in their status as substrates for interrelational demarcations of natural substances and for qualitative ascriptions, including those of sense experience" [Wagner (2002b), 51].

[42] *E.g.* leprechauns, specters, phlogiston, or when we think we see something that's just not there.

[43] Perhaps to circumvent the need, given his Greek-Hellenistic intellectual ancestry and milieu, to confront and address *hyle* ('matter'), Plotinus also likens the generation of sensibly material things to how figures and shapes just 'fall from' his contemplations of geometry (III.8.4, 9-11). A more contemporary analogy might be how information-encoded laser-light interference patterns instantiate to our sense perception hologrammatic images. Accordingly, Denis O'Brien's question and argumentation whether Plotinus' use of *tous me ontos* regarding the natural order's materiality (or 'matter') intends non-existence or non-being just poses a logical, linguistic, and ontological false-dichotomy. (See William Carroll's essay, though, for a different interpretative reading from mine here of some crucial texts on 'matter' in the *Enneads*.)

sometimes a response to is due to the inevitability and character of the natural order's vertical emergentism,[44] and in its way is (epistemically) a final consequence of Plotinus' principle that "things engendered tend downwards and not upwards and, especially, [always] move towards [greater] multiplicity" [V.3.16, 6-8 MK]. While teleologic conceptions and analyses tend to enter Plotinus' discussions under horizontal conditions, we have seen that sensible materiality's own distinct character is emergently inherent to the vertical order itself and Plotinus' conception of its descent from the One. And, insofar as we are empirically justified in thinking of a certain robust, persistent, spatiotemporally and sensibly circumscribable part of the cosmic order as a recipient of its own tailored-to-fit-it-alone soul-potency(ies) [II.3.13, 9], that this soul-essence's teleologic program(ming) is not separate from but subordinate to the same *telos* as cosmic soul's (*viz.* that there be Unity) can be underscored by the fact that, while the various operations and engenderings of a soul-essence's part-potencies may indeed be thought of variously and horizontally (and therein dynamically, even adaptively so), from the perspective of Plotinus' vertical order what all this in reality manifests and reveals to us (to our understanding and analyses) is rather an implicit inner complexity to what in reality is a holistically singular (vertical) engendering of the natural order.[45] Accordingly, a principal epistemic implication for Plotinus of the seemingly contrary character of the natural order to the vertical order is the dual manner in which we must conceptualize and seek to understand the vertical order itself – in one respect (regarding its ontology and real character) statically and archetypally and in another respect (regarding its causal operation and generation) dynamically and teleologically. In consort, these two lenses glimpse for us a hypostatic order whose existential descent finally into sensible materiality is in a way for it also a journey of self-discovery, one in which only as it (finally) engenders the natural order and its myriad ongoing complexities and

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[44] As is the natural order's own propensity for horizontal emergentism – the ongoing possibility of newness, other-ness, unpredictability, and the like, of its conditions and phenomena.

[45] see Rappe, 88-91. Plotinus sometimes uses another tripartite distinction to conceptually partition the inner complexity to soul's engendering of the natural order [VI.7.7] – having soul "make a place" for itself (engender spatiotemporality), and "tentatively illuminate" or "preliminarily sketch" nature's ordered-ness (perhaps referring here to the overall organization of the cosmos, though this may include for example its most basic or elemental constituents), and then sharpen its illumination and fill-in its sketch or sketchings (perhaps referring here to the effective operations of the soul-essences, though we have seen that these are not entirely separable for the cosmic-soul's ongoing operations and governance). See also II.3.17.

challenges – both the "good" and the "bad" – does it realize its own true causal nature and potency.

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Uneasy Rapprochement of the Neoplatonic Eternity and Christian Historicity in the Thought of Ioane Petritsi

Levan Gigineishvili

Christianity, with the doctrine of creation, introduced a radical divergence from the ancient philosophic thought that aside from some exceptions basically held the world as eternal and fundamentally changeless. In Plato, the perceptible world represents a "living image of eternity", in which the invisible divine principles, immune from any change, manifest themselves in a changeable way; however, this changeability of the physical world is stable and constant, just as its metaphysical referent. The same is true for Aristotle, who upholds eternity and *unoriginatedness* of the world and eternity of genera and species. The Stoic recurrent conflagrations also bear witness to the circularity of the antique vision. Christianity introduced the paradox of a different relationship between the eternal and temporal and the difference went as far as to change the very concept of "eternal", for it now appeared to represent a dynamic and reciprocal relationship with the temporal world. The Biblical narrative speaks about the unique historical occurrences, historical intrusions of the eternal and divine into the temporal realm. Moreover, those intrusions are depicted as having a certain logic of development: they, in fact, are destiny-defining *momenta* for all humankind, and not only humankind, but the entire creation. The New Testament writers, especially John and Paul are emphatic about this; for example, Paul speaking about the Old Testament – and I guess even Greek religiosity – as *paidagogos* leading towards the advent of Christ. Now, the very term "unique intrusions" must be appalling for Neoplatonists, for divine activity cannot be but eternal and changeless, and here in Christianity we have a difference of those activities with reference to the created world. Moreover, this difference accounts for God's heeding and attending to human weaknesses and limitations, so that His actions and precepts are versatile just as human preparation is versatile; that is to say,

divine attitude to humans is *oikonomic*. Such a position can only be upheld upon a perception of God as a *person/hypostasis* and knower of human hearts. Thus, not only the very creation of the world "tarnishes", so to say, divine immutability, but the difference and uniqueness of divine actions or manifestations with reference to mankind. Just as the creation is a unique act, so also the Incarnation is a unique act, and also the Second Coming, the universal resurrection and the Last Judgment are understood as unique acts in the history of mankind.[1] Needless to say, both Neoplatonists and Christians felt the radical discrepancy. The major polemical thrust of both pagan Neoplatonist philosophers (e.g. Proclus, Simplicius) and the Christian philosophers (e.g. Philoponus) especially at the final phase of the Neoplatonic school of Athens in the fifth and early sixth centuries related exactly to this fundamental disagreement concerning the eternity or createdness of the world. The basic irreconcilability of those two positions seems to amount to the essential irreconcilability of Neoplatonism and Christianity. In the light of this, it is all the more interesting to consider a medieval philosopher who creatively aspires to bridge what seems to be unbridgeable and to reconcile what seems to be irreconcilable in principle.

In what follows, I shall present an interesting instance of how a Georgian philosopher of 12th century Ioane Petritsi, who claimed to be both a Christian and a Platonist and who held Plato and Proclus at the same level as the Biblical prophets and the apostles, tried to reconcile the historicity of Christianity, that is to say, uniqueness of divine acts, with the Platonists' vertical thrust towards the eternal patterns. I shall now demonstrate that Petritsi on the one hand shares with Neoplatonists and particularly with Proclus the existence of the changeless, eternal dimension of the divine world: of eternal music or mosaic of immutable ideas; the *henads* as incomprehensible principles of those ideas; the One –

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[1] *Cf.* for example a very clearly declared polemical statement of St Augustine in b. 12 ch. 14 of *De civitate dei*: "verbi gratia, sicut isto saeculo Plato philosophus in urbe Atheniensi et in ea schola, quae Academia dicta est, discipulos docuit, ita per innumerabilia retro saecula multum quidem prolixis intervallis, sed tamen certis, et idem Plato et eadem civitas et eadem schola idemque discipuli repetiti et per innumerabilia deinde saecula repetendi sint. Absit, inquam, ut nos ista credamus. Semel enim Christus mortuus est pro peccatis nostris; "surgens autem a mortuis iam non moritur, et mors ei ultra non dominabitur", et nos post resurrectionem semper cum Domino erimus, cui modo dicimus, quod sacer admonet psalmus: "Tu, Domine, servabis nos et custodies nos a generatione hac et in aeternum." Satis autem istis existimo convenire quod sequitur: "In circuitu impii ambulabunt"; non quia per circulos, quos opinantur, eorum vita est recursura, sed quia modo talis est erroris eorum via, id est falsa doctrina".

the origin of all; and he believes along with the Neoplatonists in the visible world as a changing image of the changeless paradigm. However, on the other hand, as a Christian he also believes in unique actions of God – particularly, he believes in the Incarnation – and seems to have a notion of a process in history, as a preparation towards this unique occurrence.[2] Thus, in his philosophical system two seemingly irreconcilable tenets are harmonised. However, this harmonisation or rapprochement is quite an uneasy one: at odds both with Neoplatonism and Orthodox Christianity. Petritsi diverges with the latter in subjecting the process of history to the pattern of eternal return and circularity, in which he probably follows Origen and upholds the doctrine of final *apokatastasis* in terms similar to the Alexandrian theologian.

I will now show Petritsi's ideas from his three extant works, the Commentaries on Proclus, the Preface to a Commented Translation of Psalms and the Translation of Nemesius of Emesa's *De natura hominis*. Especially interesting is the last work, for in it Petritsi exposes his ideas by simply consciously mistranslating Nemesius, in a way correcting him, and providing a totally different, even a contrary meaning. I will start with the Commentaries on Proclus:

1. An excerpt from commentary on Prop. 50 of Proclus' "Elements of Theology":

Aristotle says that *chronos* is the measure of movement, that is to say, that the measure of the first movement and the first movement applies to the first body, which is called *ouranos* by the Greeks, meaning "something at which we look up" [Greek: ὁράω ἄνω] or "the upper limit" [Greek: ὅρος ἄνω]. However, this is the Aristotelian and Peripatetic definition. Yet the great Plato and all the theologians – the great Plotinus the Egyptian, the teacher of Porphyry, and the great Iamblichus the Phoenician intellect (or "whose intellect is like a date fruit tree [i.e. 'evergreen']") – say that *chronos* is the image of eternity.[3]

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[2] No special study has been devoted to Petritsi's vision of history and its relationship to his eternalist metaphysical worldview. In most cases only the second aspect has been highlighted, sometimes with a total neglect of the Christian modifications that are no less important for Petritsi (Cf. e.g. Shalva Khidasheli, *Ioane Petritsi*. Tbilisi: Mecniereba, 1956). The present study attempts at a more nuanced and complex, if also more problematic, account.

[3] *Commentaries, prop.* 50. 107. 23 – 108. 2.

Here we see that Petritsi upholds a classic Neoplatonic tenet that time is the image of eternity. He does not go into details of Proclus, who claims that time is a principle higher than soul, in fact an intellect (*In Tim* III, 3.32-4.6) but, more in tune with Plotinus, posits time immanently in the realm of soul and its discursiveness and the temporal word.

However, Petrisi also speaks about the unique occurrences in history when speaking about the Son, the Trinitarian hypostasis, identifying Him with the metaphysical principle of Prolcus, second only after the One: the First Limit. Immediately after asserting this identification, Petritsi proceeds to speak about the Incarnation of this very principle.

2. An excerpt from the commentary on prop. 29 of Proclus' "Elements of Theology":

Isaiah, the *pursos* [transliterated from the Greek: πυρσός – "torch"] of divine firebrands, says "A child is born for us." He calls [the *Logos*] "child" as originating from the Father, and "for us" indicates the fact that He is known and understood by us only now.[4] In addition, [Isaiah also says] "His origin [Principle] is on His shoulders," where by representing the Father on His shoulders he implies His inseparability from His cause – the Father. Moreover, this too is a parable, because shoulders are the place of power. Therefore, by saying "on His shoulders," he means "on His powers," for effects receive all powers from the causes. Not, though, in an accidental way, but in essential way and in this case even in a supra-essential way, through unity with the One. Actually, before [He generates] the *ones [henads]*, the One [Father] generates the *One* [Son] and only then does there follow the series of the *ones [henads]*. In addition, [he also calls Christ] "the angel – that is to say, the preacher – of the great mystery." Here the "great mystery" relates to the entire creation of the constitution of beings and our initiator to this mystery is the theory of the philosophers of the Daylight.[5]

As evident from this passage, Petritsi speaks about some change in philosophy or theology, which are the same for him, for he says that something unique has happened there, for the metaphysical principle of the πέρας, was "only now" understood by us as the Incarnate Logos. Moreover, the same Logos gives account to the "great mystery" of the creation and constitution of beings through philosophers enlightened by Him. Petritsi perceives himself as one of those philosophers, enlightened by Christ, whom he calls the "Life-giver of his theories". All these indicate

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[4] *Cf*. St. Paul, in Colossians 1. 26 and 2 Timothy 1. 9–11.
[5] *Commentaries, prop.* 29. 78. 16–28.

that Petritsi sees a certain development in philosophy by virtue of the fact of Incarnation. As my former professor of medieval philosophy Gyorgy Gereby told me in a private conversation, this sort of doctrine, in a way, undermines the very concept of *philosophia perennis*, for the fact that Incarnation changes the very reality of contemplation, for after the Incarnation the contemplation is performed already at a higher and more luminous level. This idea is expressed, in fact, in Petritsi's preface to the commented translation of Psalms:

3.   An excerpt from Petritsi's introduction to his commented translation of Psalms:

And [we may make such a comparison]: as many separately standing towers are united by a top-stone that links all of them, so also he [David], being in no wise abandoned by any good, calls [Christ] the Head of all extremities, who links to each other different extremities and towers. May you understand as "towers" all those graces and bestowals that the Holy Spirit vouchsafed upon humankind from Above – I mean the intellectual wisdom, which was revealed to humankind at certain moments of time according to the heavenly benevolence on our behalf: i) to Abraham, ii) to the Chaldeans, and, furthermore, iii) to the Greeks; in fact, the teacher of our Church, Paul, says that [Greek wisdom] derives from the same [Holy] Spirit, calling it, accordingly, 'divine wisdom'.[6] And now, we dare say, that our Tower, Christ, who is Great[7] and transcendently higher than anything which is accounted for as being "high", has linked together all other towers and pulled them to Himself, as disciples to their Master, in order that they may attune their voices to the shining of His teaching. In fact, all of them (i.e. the pre-Christian manifestations of wisdom), yes, in a way, did elevate souls upwards; however, finally, the Sun originated from the Father elevated the souls of us human beings higher than any of the highest ones among them.[8]

This passage clearly shows the process and importance of history as a playground for subsequent and increasing revelations of God in different cultures and traditions, "according to the heavenly benevolence on our behalf", all of them leading to the final revelation through the Incarnation of Logos, who introduces a qualitative change even in philosophy, "rising

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[6] *Cf.* 1 Cor 1:21: "For since, in the wisdom of God, the world did not know God through wisdom, God decided, through the foolishness of our proclamation, to save those who believe."

[7] *Cf.* Tit 2:13 ("Our Great God and Savior Jesus Christ").

[8] *Commentaries,* p. 210.

souls of humans higher than any highest among the philosophers". In this light, one may think that some fundamental divergences of Petritsi from Proclus' doctrine, especially his Trinitarian theory introduced in Proclus' system and his account of *henads* as not gods *per se* but only created entities divinised through participation in the πέρας-Logos, can be understood as a Christian philosopher correcting Proclus, or better said, expressing his theories in a better way, since now all is enlightened by the Incarnate Logos.

Unfortunately, Petritsi does not make quite clear what he means in "rising souls higher". Perhaps his peculiar vision of mystical union with the One is also related to this: unlike the Neoplatonists' idea of return, which entails a stop or consummation, Petritsi develops a dynamic, or better, to use Gregory of Nyssa's term, "epectatic" idea of return, with a never-ending striving towards, or never-satiated enrichment by the riches of God.

Yet, even after the Incarnation the fundamental structure of the world does not totally abandon the logic of a circle. In my opinion, Petritsi holds the Origenist doctrine of the final restoration or *apokatastasis* of all, even the demons. Let me now bring some last examples from his translation of Nemesius of Emesa's *De natura hominis*.

4.   An excerpt from Nemesius of Emesa's *De natura hominis:*

Οὔτο δέ τινες καὶ τοὺς ἀγγέλους βούλονται μηκέτι μετὰ τὴν ἔκπτωσιν τυγχάνειν τῆς ἐκ μετανοίας συγγνώμης· θάνατος γὰρ τούτων ἡ ἔκπτωσις· πρὸ δὲ τῆς ἐκπτώσεως καθ᾽ὁμοιότητα τῆς ζωῆς τῆς τῶν ἀνθρώπων καὶ αὐτοὺς ἀξιοῦσθαι συγγνώμης· ὅπερ μὴ ποιήσαντες ἀσυγγνωστον καὶ διαιωνίζουσαν ἔχουσιν τὸ λοιπὸν τῆς τιμωρίας τὴν προσήκουσαν δίκην.[9]

Thus, some think also about angels, that they will not obtain forgiveness through repentance after the fall, because for them death is the fall; in fact, before the fall, analogously to the life of humans, also they were worthy of forgiveness; having not performed this [i.e. the repentance] they have henceforth the judgment relevant to their worth: eternal and without pardon.

Petritsi's translation:

Thus, some think also about angels, that they will not obtain forgiveness through repentance after the fall, because for them death is the fall; in fact, before the fall, analogously to the life of humans, also they were worthy of

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[9] Emeseni (1987), 10.

forgiveness, *which if they will not perform, they will have the excess of punishments duly allotted to them: eternal and without pardon.*[10]

Here Petritsi mistranslates Nemesius, who denies any possibility for demons to repent in virtue of the fact that they have missed this opportunity, analogously to humans who, according to this passage, lose the opportunity for repentance after a physical death. Interestingly, Nemesius holds a certain stage of fall for angels in which stage they could still repent, but having denied this opportunity, they have lost it for good. Petritsi changes the assertive sentence into a conditional, thus leaving a space of repentance even to demons, which is quite alike Origen's theory of the final *apokatastasis*.

Nemesius himself in fact denies this theory when attacking the Stoics' metaphysics, attacking as well those Christians according to whose wrongheaded imagination the resurrection of the dead will happen in a periodic-circular fashion and not *hapax*. Petritsi mistranslates this passage asserting the very idea Nemesius condemns.

5. Another excerpt from Nemesius:

ἔσεσθαι γὰρ πάλιν Σωκράτην καὶ Πλάτωνα καὶ ἕκαστον τῶν ἀνθρώπων σὺν τοῖς αὐτοῖς καὶ φίλοις καὶ πολίταις, καὶ τὰ αὐτὰ πείσεσθαι καὶ τοῖς αὐτοῖς συντεύξεσθαι καὶ τὰ αὐτὰ μεταχειρεῖσθαι καὶ πᾶσαν πόλιν καὶ κώμην καὶ ἀγρὸν ὁμοίως ἀποκαθίστασθαι· γίνεσθαι δὲ τὴν ἀποκατάστασιν τοῦ παντὸς οὐχ ἅπαξ, ἀλλὰ πολλάκις, μᾶλλον δὲ εἰς ἄπειρον καὶ ἀτελευτήτως τὰ αὐτὰ ἀποκαθίστασθαι. τοὺς δὲ θεοὺς τοὺς μὴ ὑποκειμένους τῇ φθορᾷ ταύτῃ, παρακολουθήσαντας μιᾷ περιόδῳ, γινώσκειν ἐκ ταύτης πάντα τὰ μέλλοντα ἔσεσθαι ἐν ταῖς ἑξῆς περιόδοις· οὐδὲν γὰρ ξένον ἔσεσθαι παρὰ τὰ γενόμενα πρότερον, ἀλλὰ πάντα ὡσαύτως καὶ ἀπαραλλάκτως ἄχρι καὶ τῶν ἐλαχίστων. καὶ διὰ ταύτην τὴν ἀποκατάστασιν, φασί τινες, τοὺς Χριστιανοὺς τὴν ἀνάστασιν φαντάζεσθαι,

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[10] "ესრეთ უკუე ვიეთმე და ანგელოზთაცა ეგულების შემდგომად დაცემისა აღარა მიმთხუევად სინანულისა მიერ შენდობასა, რამეთუ სიკუდილ ამათა არს დაცემაა; ხოლო პირველ დაცემისა, მსგავსადვე კაცთა ცხოვრებისა, და მათიცა ღირს ყოფად შენდობისა; რომლისათჳისცა, თუ არა ქმნან ესე, შეუნდობელი და საუკუნო აქუნდეს ნამეტნავი სატანჯველთასა სამართლად მისაგებელი". ნემესიოს ემესელი, "ბუნებისათჳის კაცისა", თარგმანი იოანე პეტრიწის, გამოსცა ს. რ. გორგაძემ. თბილისი, 1914, გვ. 17. (Nemesius of Emesa, "On Human Nature", transl. by Ioane Petritsi. Ed. S.R. Gorgadze, Tbilisi, 1914, p. 17).

πολὺ πλανηθέντες· εἰς ἅπαξ γὰρ τὰ τῆς ἀναστάσεως καὶ οὐ κατὰ περίοδον ἔσεσθαι τὰ τοῦ Χριστοῦ δοξάζει λόγια.[11]

There will be again Socrates and Plato and each of the humans with their friends and co-citizens, and they will believe the same and will meet with the same [people] and will administer the same things and every city and village and town will similarly be restored; now, the restoration of all will happen not once, but many times nay infinitely and endlessly will the same things be restored; as to the gods who are not subject to this corruption, following one period, they know from it everything that will happen in the rest of the periods, for nothing alien to what has happened before will happen, but all will be similarly and changelessly, until the very last things. *And some say, that Christians think about resurrection in accordance with the mentioned restoration, being much mistaken: Christ's oracles proclaim resurrection that will happen once only and not according to periods.*

Petritsi's translation of the last (italicised) sentence:

And some say that Christians' resurrection [will happen] for the reason of this restoration, and as they say this, they imagine it, [the meaning of the translation is obscure for me L.G.]; in fact many have made a mistake thinking that Christ's words are about one-time-only resurrection and not about [resurrections] happening periodically, and thus they mix things like this.[12]

What we read here is that Petritsi takes the term "resurrection" as something that happens periodically; that is to say, "resurrection" in this sense is the same as soul's periodic reincarnation in quite Platonic terms. Now, how can this match the Christian historicity and eschatology, which Petritsi adheres to? Does Petritsi mean that those periodic resurrections, that is to say reincarnations, will end as soon as the history will end? Moreover, it seems in the light of Petritsi's vision that at different incarnations each soul will have a higher and a closer access to the Divine sphere due to the fact that God has been gradually unfolding his will to humanity through His benevolent bestowals before the final revelation through the incarnation of His Son. To be more precise: a soul

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[11] Emeseni (1987), 112.

[12] "და ამის უკუჱ კუალად გებისათჳს იტყჳან ვიეთნიმე ქრისტიანეთა აღდგომასა, რომელ იტყჳან, იონებენ; მრავალნი შესცთეს ერგზის აღდგომისათვის და არა მოქცევთაებრ ყოფად მეთნენი ქრისტჱს სიტყუათანი, ამის ესევითარად ვინაჲცავ წაჰრევენ" (Ibid. pp. 150-151).

reincarnated before the New Testament times will have a lesser access to
the Divine than soul reincarnated after, for the latter will be lifted up by
the Incarnate Christ "higher than any highest of philosophers". Petritsi
does not say this explicitly, but probably for him this dynamism continues
even in the period between the Incarnation and the final stage, the
eschaton of the history, and perhaps he views his innovative Platonic-
Christian theology as a theologically legitimate and even an indispensable
development. The model of the world and the history in Petritsi's view can
be, then, graphically expressed as a spiral: there are periods in it, denoting
reincarnations of the same souls, however those reincarnations are
qualitatively different, for they happen in times when greater and greater
access to the Divine is possible due to a gradual increase of divine
manifestations or benevolent bestowals until the final consummation of
history. Thus, the same souls appear to grow not only in each historical
reincarnation, but also from a reincarnation to reincarnation, and so until
the end of times. Probably this is the case in Petritsi, however strange it
may sound. Now, will there be a possibility of a further fall of souls and
thus of starting the history anew, as this possibility is permitted by Origen,
or Petritsi had his own, different solution to this problem? Unfortunately,
these questions are not specially addressed by the Georgian philosopher,
so they remain open to further speculations.

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SCHOPENHAUER AND PLATONIC METAPHYSICS.
TOWARDS A NEW INTERPRETATION OF THE WORLD AS WILL AND REPRESENTATION

CARLOS JOÃO CORREIA

The traditional interpretation of Schopenhauer's "The World as Will and Representation" sustains the antinomy between the World as Will, considered as blind desire, and the World as Representation, as a rational but illusory view of reality. We'll argue that the notion of representation beyond the principle of reason, and of the will beyond nihilist desire gives us a new view of reality beyond the World itself. To understand our thesis we must acknowledge the impact of Plato's philosophy on Schopenhauerian metaphysics.

The World as Will and Representation seems fairly simple to describe, either in the 1818's four books first edition, or in the 1844's second edition (containing a second supplementary book to each of the original four books). The first book shows us the world, as we *perceive it*, as plain representation, in which the term "representation" must be understood as appearance and not as reality. The second book argues reality is, essentially, will, considered *prima facie* as blind and inexorable desire bringing nothing but suffering to those who live it. The third book stands for art as a mental sublimation for pacifying suffering, as a palliative. Finally, the fourth book suggests compassion and mysticism as a way of freeing ourselves from that suffering as they are the expression of radical renunciation to will, that way allowing closeness to the much-aspired emptiness and nothingness, in this nihilist and pessimist view.

We'll argue this interpretation, although generally supported, is superficial and doesn't take into consideration the relevance of platonic reasoning and the *Upanishads* in Schopenhauer's work. As the author himself highlights,

"I do not believe my doctrine could have come about before the
Upanishads, Plato and Kant could cast their rays simultaneously" [1] .
Oriental thought and *Upanishads*'s influence on Schopenhauer is known
not just because he, effectively, introduced classical Indian philosophy and
Buddhism in the west – more than Romanticism and I am, naturally,
considering Friedrich Schlegel's work "On the Language and Wisdom of
the Indians" (1808) – or American Transcendentalism, and I'm considering
Emerson's and Thoreau's philosophical reasoning – but because he
considers them crucial to his own life. As Christopher Janaway highlights[2],
Schopenhauer states *Upanishads* were "the consolation of my life"[3]. I am
convinced that the nihilist interpretation of Schopenhauer's work – that we
criticize – is derived, partially, by the author's personality, undeniably
antisocial and conflictive, but also caused by his main disciple, Nietzsche,
particularly by his, ever more critical, detachment, that will interpret in
Schopenhauer's work the crowning of a will that wishes nothing and a
philosophy that truly wishes *The Nothing* itself. Schopenhauer's easy
affiliation in German Idealism's dynamics – either in the relevance the
philosopher attributes to the first edition of *Critique of Pure Reason*, or in
the "*contre-coeur*" assumption, we must say, of Schelling's thesis stating
will as primordial being (*Urseyn*) – naturally overshadows the relevance of
Platonism and *Upanishads* in the systematic presentation of his thought.
Our purpose is not so much, as we will see, to deny the influence of
German Idealism on Schopenhauer's work but, instead, to show it can be
interpreted in a rather different approach from what has been done in the
past.

The thesis we support can be formulated in a simple statement:
Schopenhauer's philosophic intuition apprehends an undifferentiated
unity, on the limit, unknowable, between, in one hand, the subject and, on
the other, what cannot be represented. That unity is present – if one
prefers, indicted or "displayed" – in aesthetic contemplation and mystic-
ethical experience. The interpretation we suggest, far from considering the
last two books of Schopenhauer's cited work as psychological palliatives
in face of discovering a blind and cruel world, must instead be considered
as the ones that provide, clearly, the philosopher's central insight. The way
we see it, only lack of knowledge over the influence of Plato and the
Upanishads on *The World as Will and Representation* can explain, what
we consider to be, a deeply wrong interpretation of the author's work. An
exception must be made to Wittgenstein's, no doubt personal,

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[1] Schopenhauer (1988), 467.
[2] Janaway (2002), 18.
[3] Schopenhauer (1974), 397.

interpretation, expressed in the so-called War Journals (1914-1916) and in different paragraphs of the *Tractatus*. Before we discuss, nearly at the end of this presentation, the clever way in which the Austrian philosopher captures the essence of the German philosopher's work, we will seek, in a first moment, to highlight Schopenhauer's main concepts, in order to interpret him in a radically different manner.

As we have seen, our thesis posits that the subject and the irrepresentable totally converge. It seems clear that, according to the principle of reason, if the self was merely a representation, we could hardly grasp that underlying unity, at the same time unknowable, unless through aesthetic contemplation, artistic creation, ethical compassion or mystical serene meditation. If we will, we do nothing more than preserving Kantian's matrix in Schopenhauer, as also in Kant, the only moral feeling able to transcend a world limited by the nature of human knowledge abilities is through aesthetic contemplation and moral respect. In turn, as we've mentioned, Schopenhauer's inspiration obeys the dynamic movement of ideas usually considered as "German Idealism". As Robert Wicks clearly shows:

> It is a perennial philosophical reflection that if one looks deeply enough into oneself, one will discover not only one's own essence, but also the essence of the universe. For as one is a part of the universe as is everything else, the basic energies of the universe flow through oneself, as they flow through everything else. So it is thought that one can come into contact with the nature of the universe if one comes into substantial contact with one's ultimate inner being. Among the most frequently-identified principles that are introspectively brought forth – and one that was the standard for German Idealist philosophers such as Fichte, Schelling and Hegel, who were philosophizing within the Cartesian tradition – is *the principle of self-consciousness*. With the belief that acts of self-consciousness exemplify a self-creative process akin to divine creation, and developing a logic that reflects the structure of self-consciousness, namely, the dialectical logic of position, opposition and reconciliation (sometimes described as the logic of thesis, antithesis and synthesis), the German Idealists maintained that dialectical logic mirrors the structure not only of human productions, both individual and social, but the structure of reality as a whole, conceived of as a thinking substance. As much as he opposes the traditional German Idealists in their metaphysical elevation of self-consciousness (that he regards as too intellectualistic), Schopenhauer stands within the spirit of this tradition, for he believes that the supreme principle of the universe is likewise apprehensible through introspection

and that we can philosophically understand the world as various manifestations of this general principle.[4]

Wicks acknowledges, naturally, that, as in Fichte's, Schelling's and Hegel's Idealism, this principle of Schopenhauer cannot be rational and self-conscientious at the same time, for that would imply a notion of a Self or an absolute individual manifesting through action (as in Fichte), in nature (as in Schelling) or in history (as in Hegel). Unfortunately, Wicks ends up stating that principle, in Schopenhauer, as a blind will, relentless and meaningless. It seems to us that, on the contrary, the German philosopher intends to demonstrate, as Kant had stated, that unity as being unknowable in itself but with the possibility of being grasped aesthetically and ethically. The so-called blind will, relentless, meaningless desire is just one of the ways of apprehending that unity but, it not only doesn't strain its multiple manifestations, as it renders it inconsistent with insights found in books about the aesthetic and ethical experience. That interpretation has its origins mainly in the so-called "analogous statement", advanced by Schopenhauer, which is coherent with the previously presented thesis – in the limit of it, self-knowledge is the best instrument to know reality itself. What does the analogy statement tell us?

> The double knowledge which each of us has of the nature and activity of his own body, and which is given in two completely different ways, has now been clearly brought out. We shall accordingly make further use of it as a key to the nature of every phenomenon in nature, and shall judge of all objects which are not our own bodies, and are consequently not given to our consciousness in a double way but only as ideas, according to the analogy of our own bodies, and shall therefore assume that as in one aspect they are idea, just like our bodies, and in this respect are analogous to them, so in another aspect, what remains of objects when we set aside their existence as idea of the subject, must in its inner nature be the same as that in us which we call will. For what another kind of existence or reality should we attribute to the rest of the material world? Whence should we take the elements out of which we construct such a world? Besides will and idea, nothing is known to us or thinkable. If we wish to attribute the greatest known reality to the material world which exists immediately only in our idea, we give it the reality which our own body has for each of us; for that is the most real thing for everyone. But if we now analyze the reality of this body and its actions, beyond the fact that it is an idea, we find nothing in it except the will; with this, its reality is exhausted.

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[4] Wicks (2015), 4.r e

Therefore, we can nowhere find another kind of reality, which we can attribute to the material world.[5]

Clearly we are not facing a strong logical statement, but instead a hermeneutic key, proposed by Schopenhauer, as a way of surprising within ourselves a double dimension: our body as an object of knowledge, that is, body as perceived from an exterior point of view, but at same time experienced from within, in the first person perspective. We find a person representing the body as an object among other objects, in one hand, and the existence of the will, of intention, revealed in carnal desire, on the other, leading Schopenhauer to conclude, by analogy, that beyond representation there is, similarly, intention in world's constitution. Schopenhauer does not deny that the world is coincidental with the will, but denies that reality is only the blind desire. The world as will, particularly in its expression of wanting and desire, is merely one of the multiple manifestations of unity amongst subjectivity and the irrepresentable.

There are several ways of manifestation of this primordial unity, being that the body is the one we can, not only have an immediate experience of, but we can perceive the difference between personal-body (*Leib*, in Husserl's concept) and object-body or representation (*Körper*, again in Husserl), later acknowledged in contemporary philosophy. What are, for Schopenhauer, these different manifestations of primeval unity, of reality in itself? Without hesitation, Schopenhauer calls them Ideas and openly declares his debt to Plato. Quoting the German philosopher in §25:

> These different grades of the objectification of will which are manifested in innumerable individuals, and exist as their unattained types [*Musterbilder*] or as the eternal forms of things, not entering themselves into time and space, which are the medium of individual things, but remaining fixed, subject to no change, always being, never becoming, while the particular things arise and pass away, always become and never are [*nie sind*], – that these grades of the objectification of will are, I say, simply Plato's Ideas. I make this passing reference to the matter here in order that I may be able in future to use the word Idea in this sense. In my writings, therefore, the word is always to be understood in its true and original meaning given to it by Plato.[6]

The author clearly highlights the strict use of the word "idea" in a Platonic sense. Schopenhauer does not relate with the Kantian notion of Idea – even if Kant, on this matter, is convinced to understand Plato even

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[5] Schopenhauer (1968), 163 f.
[6] *Ibid.*, 195.

better than what he understands himself – nor with the Hegelian notion of the word. As we know, with Kant, Idea is the theoretical expression of unconditioned unity but only conceivable from all internal and external phenomena. In turn, Kant aims at a possible presentation of reason's own ideas, following an aesthetical notion, as, for instance, the poet seeks to render rational ideas affective. As stated by the philosopher in §49 *The Critique of Judgment*:

> By an aesthetic idea, I mean that representation of the imagination which induces much thought, yet without the possibility of any definite thought whatever, i.e., concept, being adequate to it […]. It is easily seen, that an aesthetic idea is the counterpart (pendant) of a rational idea, which, conversely, is a concept, to which no intuition (representation of the imagination) can be adequate.[7]

In Hegel, Idea is the unity of the concept and reality and so, on the discourse of this thinker,

> The Idea is truth *in itself and for itself – the absolute unity of the notion and objectivity*. Its 'ideal' content is nothing but the notion in its detailed terms: its 'real' content is only the exhibition which the notion gives itself in the form of external existence, while yet, by enclosing this shape in its ideality, it keeps it in its power, and so keeps itself in it.[8]

What leads Schopenhauer to the assumption of having discovered the true meaning of Plato's notion of Idea? It's important to bear in mind that in Schopenhauer, phenomenological individuation is merely a perceptive manifestation through space, time and causality. Far from being a reasoning category, apart from sensibility, causality is the expression of intellectual intuition through which we are capable of articulate events, that is, time-space events. It is, basically, what the philosopher conceives as the principle of reason or the principle of sufficient reason. There are other dimensions to that principle – for example, logical inference – causality, however, is responsible for manifestations in the phenomenological world, particularly, the individuation principle. When superficially reading Schopenhauer, abolishing the world of representation sustained by reason, we discover a world blind and united in which multiplicity has vanished. Later Nietzsche interpreted this as the chaos hiding behind the veil of Apollonian appearances. It is, for sure, the world's vision of *The Birth of Tragedy* but not Schopenhauer's. In fact, individuation fades but not

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[7] Kant (1975), 413 f.
[8] Hegel (1969), 182.

pluralism. What pluralism? According to the author's words, it is the pluralism of Ideas, that is, of reality as it reveals itself beyond the reason principle. In §30, he will tell us:

> This objectification of will was found to have many definite grades, in which, with gradually increasing distinctness and completeness, the nature of will appears in the idea, that is to say, presents itself as an object. In these grades, we already recognized the Platonic Ideas, for the grades, are just the determined species, or the original unchanging forms and qualities of all natural bodies, both organized and unorganized, and also the general forces which reveal themselves according to natural laws. These Ideas, then, as a whole express themselves in innumerable individuals and particulars and are related to these as archetypes to their copies.[9]

Ideas are the will's expression levels in the representation world, but the last one – representation world – is no longer subdued to the principle of sufficient reason or, if we prefer, to the *a priori* manifestations of Kant's sensible intuition. It is relevant to mention that in the cited text, Schopenhauer highlights the existence of several levels, of increased coherence, of will's expression, clearly demonstrating that the blind dimensions of desire and wanting are still obscure expressions of primordial unity. In its turn, the German Philosopher mentions we are facing forces revealed in nature. Clearly, the author distinguishes between the world of physics, worried about understanding laws of causality and order of events, from the metaphysical apprehension of those same forces. So, it would be profoundly wrong to misinterpret the world of phenomenological individuation from pluralism of Ideas.

> The multiplicity of such individuals [in the world of representation, according to the principle of reason] is only conceivable through time and space, their appearing and passing away through causality, and in all these forms we recognize merely the different modes of the principle of sufficient reason, which is the ultimate principle of all that is finite, of all individual existence, and the universal form of the idea as it appears in the knowledge of the individual as such. The [Platonic] Idea, on the other hand, doesn't fall under this principle and lies there for neither multiplicity nor change. While the individuals in which it expresses itself are innumerable, and unceasingly come into being and pass away, it remains unchanged as one and the same, and the principle of sufficient reason has for it no meaning.[10]

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[9] Schopenhauer (1968), 245.
[10] *Ibid.*, 245 f

Schopenhauer presents multiple examples of what he considers Ideas, such as the case of "force of gravity", and "electromagnetism", just to mention the ones known by Schopenhauer's contemporary physics (we should remember that the philosopher was committed to natural sciences before prosecuting in Göttingen a philosophy graduation under the famous author of *Aenesidemus* – naturally, we're referring to G.E. Schulze who, with his skepticism, inspired Schopenhauer's critique of Kant's notion of "thing-in-itself", allowing himself to approach, instead, all that stands beyond any possible representation, that is, the irrepresentable). The notion of Idea does not end in the field of nature. The latter is the privileged expression on primordial unity between reality and the individual (§44).

> This knowledge of the Ideas of higher grades, which in painting we receive through extraneous means, we may gain directly by the pure contemplative perception of plants, and observation of beasts, and indeed of the latter in their free, natural, and unrestrained state. The objective contemplation of their manifold and marvellous forms, and of their actions and behavior, is an instructive lesson from the great book of nature, it is a deciphering of the true *signatura rerum*. We see in them the manifold grades and modes of the manifestation of will, which in all beings of one and the same grade, wills always in the same way, which objectifies itself as life, as existence in such endless variety, and such different forms, which are all adaptations to the different external circumstances, and may be compared to many variations on the same theme. But if we had to communicate to the observer, for reflection, and in a word, the explanation of their inner nature, it would be best to make use of that Sanskrit formula which occurs so often in the sacred books of the Hindus, and is called 'Mahavakya' i.e., the great word: "Tat tvam asi" which means, "this living thing art thou" [Dieses Lebende bist du.].[11]

Its perfect expression occurs in the aesthetic experience, being any given artistic manifestation one way of apprehending Ideas. Not only that. When we objectively approach the modalities by which Ideas manifest in its aesthetical dimension, we can likewise reach the very own nature of the metaphysical subject. On the limit, Idea and subject will converge in the act of pure contemplation (§34):

> Gives the whole power of his mind to perception, sinks himself entirely in this, and lets his whole consciousness be filled with the quiet contemplation of the natural object actually present, whether a landscape, a tree, a mountain, a building, or whatever it may be; in as much as he loses

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[11] *Ibid.*, 310 f.

himself in this object (to use a pregnant German idiom), i.e., forgets even his individuality, his will, and only continues to exist as the pure subject, the clear mirror of the object, so that it is as if the object alone were there, without anyone to perceive it, and he can no longer separate the perceiver from the perception, but both have become one, because the whole consciousness is filled and occupied with one single sensuous picture; if thus the object has to such an extent passed out of all relation to something outside it, and the subject out of all relation to the will, then that which is so known is no longer the particular thing as such; but it is the Idea, the eternal form, the immediate objectivity of the will at this grade; and, therefore, he who is sunk in this perception is no longer *individual*, for in such perception the individual has lost himself; but he is pure, will-less, painless, timeless subject of knowledge.[12]

On this subject, Kant, Plato and Vedanta (Shankara) are completely in perfect harmony with each other, to the point where we can state this as the central aspect of Schopenhauer's philosophy. The reality in itself, the radical unity between subject and the irrepresentable, is not susceptible to knowledge but to a presentation, precisely the one that music shows us (§52):

> I mean music. It stands alone, quite cut off from all the other arts. In it, we do not recognize the copy or repetition of any Idea of existence in the world. Yet, it is such a great and exceedingly noble art, its effect on the inmost nature of man is so powerful, and it is so entirely and deeply understood by him in his inmost consciousness as a perfectly universal language, the distinctness of which surpasses even that of the perceptible world itself (…). Since our world is nothing but the manifestation [*die Erscheinung*] of the Ideas in multiplicity, though their entrance into the *principium individuationis* (the form of the knowledge possible for the individual as such).[13]

In this context, music is not the idea of nature mimesis, but an expression sensitive to a reality that transcends our world and reveals itself in individual experience.

What Wittgenstein perceived in Schopenhauer is the central idea stated at the end of *Tractatus*: the subject is the limit of the world. "The subject does not belong to the world, but it is the limit of the world" (§5.632)[14]. Wittgenstein clearly shows that the subject as a limit has nothing to do with a psychological characterization, in accordance to what was differentiated

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[12] *Ibid.*, 257.
[13] *Ibid.*, 357.
[14] Wittgenstein (2001), 136.

by Schopenhauer in the insight that "the world is my representation" differs from the empiric notion as from the principle of sufficient reason when applied to the field of psychological motivations. Quoting some of the famous aphorisms of War Journals and the *Tractatus*:

> 'The Self, the Self is profoundly mysterious' (5.8.16); 'Objectively, I am facing each object. Not facing a Self.' (11.8.16); 'Thus there really is a sense in which philosophy can talk about the self in a non-psychological way. What brings the self into philosophy is the fact that 'the world is my world'. The philosophical self is not the human being, not the human body, or the human soul, with which psychology deals, but rather the metaphysical subject, the limit of the world – not part of it.' (5.641). [15]

We can conclude that the subject, for both authors, can be stated in two ways: as limit (the world is my representation) and as an empiric entity (psychological subject):

> The subject, on the contrary, which is always the knower, never the known, does not come under these forms, but is presupposed by them; therefore, it has neither multiplicity nor its opposite; unity. We never know it, but it is always the knower wherever there is knowledge.[16]

More than restating Kant's notion of a transcendental subject, we argue Schopenhauer is outlining a global metaphysical concept of convergence between the subject and the irrepresentable. Art, like ethics, demonstrates precisely that. In conclusion, let us quote Schopenhauer again on the statute of music (§52): "music […] is entirely independent of the phenomenal world, ignores it altogether, could to a certain extent exist if there was no world at all"[17]. We can conclude, then: the subject is the limit of the world since in its pure form it is merely a unit of the irrepresentable. In sum, the subject is not only the means through which self-knowledge is conveyed into the world but a way of world transcendence developed by inhibition of will. That transcendence is called contemplation and the debt of Schopenhauer on this to Plato, as in other matters, is total.

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[15] Wittgenstein (2001), 138 f
[16] Schopenhauer (1968), 34.
[17] *Ibid.*, 359.

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Whitehead's Appropriation of Plato's χωρα: Its Meaning and Effect for a Philosophy of Natural Experience

Luca Vanzago

> In addition to the notions of the welter of events and of the forms which they illustrate, we require a third term, personal unity. It is a perplexed and obscure concept. We must conceive it the receptacle, the foster-mother as I might say, of the becoming of our occasions of experience. This personal identity is the thing which receives all occasions of the man's existence. It is there as a natural matrix for all transitions of life, and is changed and variously figured by the things that enter it; so that it differs in its character at different times. Since it receives all manner of experiences into its own unity, it must itself be bare of all forms. We shall not be far wrong if we describe it as invisible, formless, and all-receptive. It is a locus which persists, and provides an emplacement for all the occasions of experience. That which happens in it is conditioned by the compulsion of its own past, and by the persuasion of its immanent ideals. (AI 187).

This rather odd text is a quotation from A.N. Whitehead's *Adventures of Ideas*, in which the English philosopher uses Plato's notion of χωρα in order to explain the unity of the stream of experiences belonging to a subject. To be more precise, Whitehead poses the problem of personality, that is, he asks how to account for the unity of a personal subject in the light of a processual approach to reality, such as it is his own. It would be difficult to summarize here the whole philosophical doctrine underlying this problem, and the reasons that led Whitehead to recur to Plato's notion of locus or space, but luckily enough Whitehead himself provides us with such a summary in the chapter of the book, entitled objects and subjects, where this quotation occurs. Hence I will give a synthetic reading of this chapter and then will discuss its meaning. Before doing this, however, a very short analysis of Plato's own conception is in order, for it should give us the ground on which to evaluate Whitehead's appropriation and discuss

its meaning and effects.

In what follows, which inevitably will be very sketchy, I rely on Francis Cornford's remarkable edition and commentary of the Timaeus,[1] as well as on Luc Brisson's excellent discussion of Plato's philosophy, and in particular of the *Timaeus*, in his *Le même et l'autre dans la structure ontologique du Timée de Platon*.[2] Brisson clearly shows in what sense it is not correct to equate Plato's notion of χωρα with Aristotle's notion of hyle. In fact it is Aristotle who establishes this equation in order to solve the problem of the substratum of motion and change. A problem which, as it is well known, is bound to radically change when the scientific revolution of the XVII century shows that matter need not be seen as caused in the sense Aristotle would have it, for in fact it does not change in the sense of ontologically altering itself, but is only subject to transformations. In the light of this revolution, being cannot be said to come into being or cease to be, but only transforms itself. It is all the more interesting that, from this point of view, Whitehead is fully aware of this shift in the physical outlook of the world, with consequences that are directly relevant for the position he takes.

Yet in Plato we are in a different setting, for he does not have the problem of finding the unchanging substrate of change, but the rather different problem of accounting for the relationship between the sensible and the intelligible. In this respect Plato introduces his notion of χωρα, and all the related terms, at once in order to understand the appearance or manifestation of things and their constitution. In this respect he conceives of cosmology as meant to answer three questions: a) what are the conditions for knowing the sensible world; b) in what way can it be described; and c) how is it possible to act in and on it. Right from the outset, therefore, χωρα is introduced with the specific aim to answer a peculiar Platonic problem: namely, what is the relationship of the forms to the sensible world?, which is the problem of understanding the relationship between being and becoming. This is exactly what is interesting for Whitehead, whose metaphysics is based on the rejection of the primacy of the immutable being as supreme form of reality, and on the introduction of becoming in its place. Whitehead's metaphysics is grounded upon notions such as passage, process, perishing, creativity and temporality, seen as the main features of the world. This is, therefore, one aspect of the particular affinity between Plato and Whitehead. It is not the only one.

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[1] Cornford (1966).
[2] Brisson (1994).

Plato shares the approach, common to basically the whole Greek philosophy, according to which that which undergoes change cannot be fully understandable unless it shows something that is not changing. His answer to this problem is in terms of the forms or eide, which immediately raises two questions: how do the forms participate among themselves and with the sensible things (question raised in the *Parmenides*). The *Sophist* provides with the answer to the first problem, the *Timaeus* to the second. The notion of χωρα in this respect is bound to grant at the same time the connection and the difference between forms and sensible things. The question consists in fact in discriminating the sensible world that is a flux, and in correctly understanding what is that which is thus discriminated. For that which is discriminated is not corresponding to the names given to things by common language. The proper names that are naively attributed to phenomena do not apply, in each case, to a phase of the phenomenal flux, but rather to that, which in the phenomenal flux, shows a certain permanence, which is what Plato calls "that which is such and such" (*toiouto*).

Each time one tries to distinguish one phase of the flux by utilizing the deictic "this", it is not a phase that is thus designated, but the environment, so to speak, in which all the phases are situated, that is, their permanent and unchanging receptacle. In this receptacle, the different manifestations, which in themselves show no permanent character, appear and disappear. Hence, the formula "that which is such and such" is meant to abbreviate a more elaborated expression, which would be something like "that which in each case is such or such, or more precisely belongs to the genus 'that which is such', and which as such can always be found as resembling in absolutely all the instances and in each one of them". What is it that is designated by this complex expression? Plato excludes that they are qualities (51a, b). In fact here there is no room for the substance-qualities distinction. It is not a matter of phenomena in themselves either: following a thesis already put forward in the *Cratylus*, Plato states (49d-50b) that what is incessantly changing cannot be said to be "this" or "that which is such and such". These modifications are accordingly related to the receptacle itself, in which they appear and disappear. They are rather properties of the receptacle itself, and they are called images or imitations of the eternal beings or forms (51a, 52a-c). Plato thus distinguishes between the receptacle from the phenomenal flux that is produced within it, and from the determined properties that are manifested in it. These properties are images of the eternal forms, which alone allow to understanding the sensible things and naming them.

The χωρα is thus a third genus of beings between the eternal forms and the sensible things. The forms have their being in themselves. The sensible things, however, as phenomena are only images of the forms, but in themselves are modifications of something that is not a form and yet is not "nothing". This "something" called χωρα plays the function of receiving the images of the forms, which are constituted by the sensible things, while giving them a certain reality by reason of its anteriority with respect to each single sensible, and of its stability. This is the reason why Plato calls the χωρα a principle possessing existence, and on this ground it can be said, although in a "disconcerting way", to possess some of the traits belonging to intelligible beings: it is immutable, it cannot be perceived by the senses, and can be predicated in terms of being this or that. This of course does not mean to simply equate the χωρα to the forms, for it is only through a "bastard reasoning" (52b2) that we can speak of the χωρα in this way. The χωρα therefore, as a third genus of being, is perhaps something resembling a "nexus" or relationship that allows Plato to connect what is separated, the sensible and the intelligible, and therefore being and becoming.

Yet Plato is forced by his own ontological assumptions to ascribe a certain form of being to χωρα, and therefore is led to see in the χωρα the being of the becoming, so to speak. In other words, he privileges that which, throughout incessant change, does not change. The χωρα is both that in which change occurs and thus manifests itself, and also that of which change is made, at least in the sense that the sensible things find their support in this sort of mother fecundated by the father to whom the forms belong. Thus χωρα in itself does not change in a subtler sense of this concept: it is a sort of "being", although of third kind, differing both from being (the forms) and becoming (the things). Plato is forced to admit here that this entity pushes his ontology to its limits. Since it cannot be a proper object of thought, a form, but cannot be a sensible representation either, it can be approached only through metaphors, and accordingly cannot receive a true univocal designation. Aristotle will interpret Plato's χωρα in a way that depends on his general understanding of his master's philosophy as based on the relevance of mathematics and geometry, thus forgetting or obliterating the more ontological side of Plato's discussion. The χωρα in fact is not simply equivalent to geometrical space, a formal (in a different sense) determination of that which exists by itself. But Aristotle is guided by a different ontology, based on substance, the dyad form-matter, and privation. He can thus show why the χωρα is simply an early, rough and contradictory notion of hyle. The relational aspect of nexus that surfaces here and there in Plato's text is thus lost.

Whitehead's appropriation of the χωρα must in the first place be distinguished from a possible interpretation in terms of geometrical space. There are several reasons for this claim, which cannot be explained here in detail. Perhaps the most important one is connected with his rejection of Newton's absolute concept of space (and time). This rejection is explicit in *Process and Reality* (PR). In AI Whitehead reiterates this rejection adding a very important remark: he connects Newton's conception of space to the question of the natural laws, showing that Newton's model is consistent with his idea of space and time as *sensoria Dei*, and most of all as the way in which God imposes his law on nature. Whitehead contrasts this model to his own, in a way that could be summarized as follows: for Newton God is transcending nature and therefore is "sensing" nature, so to speak, through space and time seen as bare containers, which allow to hold together that which, in itself, is separated, that is, the things. For Whitehead, on the contrary, nature is made of interconnections, or what he calls mutual immanence (AI, 201). Whitehead thus criticizes Newton's conception of space as but one version of a general tendency, present throughout the whole history of philosophy from *Aristotle onwards*, of conceiving of reality in terms of atoms and individuals that are then to be collected or put together through some form of synthetic action or activity, be it performed by a transcendent God or a transcendental subject. Whitehead is thus connecting a relational conception of reality with a reform of the notion of subjectivity. This is particularly clear in the chapter where the initial quotation is placed, which is entitled "objects and subjects" (chapter XI). A discussion of this chapter is therefore in order.

Whitehead starts (§ 1) by distancing his concept of experience from the Cartesian and empiricist one, which is based on the assumption that the relationship between subjects and objects is describable in terms of knower and known. Knowledge here means, following Descartes' model adopted by the Empiricists and in particular radicalized by Hume, a relationship grounded on the notion of evidence, in turn understood as focused on abstract contemplation of clear-cut sense-data devoid of any emotional or affective tone and isolated from the context in order to achieve the widest clarity. Elsewhere Whitehead criticizes this method on account of its false ontological presupposition, resting on the assumption that what is clearest in thought is also most real in the realm of existence. It could be shown that the underlying ontological presupposition guiding this method is fundamentally still Aristotelian. On the contrary, Whitehead shows that this method, while having undisputable merits in terms of epistemological investigation, leads to a wrong ontology if its methodological assumption is forgotten. In order to clarify his own view concerning

experience, Whitehead here speaks of the relation between subjects and objects in term of what he calls the "Quaker" (§ 2) notion of concern. This notion is meant in particular to avoid a description of experience in terms of detached and abstract assumption of an object by a subject (§ 3), but its ontological implications are the most relevant for this discussion.

The technical notion that Whitehead utilizes for this affectively connoted understanding of experience is "prehension" (§ 4). Whitehead gives here the following, very succinct definition of this notion:

> An occasion of experience is an activity, analyzable into modes of functioning which jointly constitute its process of becoming. Each mode is analyzable into the total experience as active subject, and into the thing or object with which the special activity is concerned. This thing is a datum, that is to say, is describable without reference to its entertainment in that occasion. An object is anything performing this function of a datum provoking some special activity of the occasion in question. Thus subject and object are relative terms. An occasion i.e. a subject in respect to its special activity concerning an object; and anything is an object in respect to its provocation of some special activity within a subject. Such a mode of activity is termed a 'prehension'. (AI, 176)

The meaning of this conception, as far as the ontological status of subjects and objects is concerned, is that subject and object are not entities existing in themselves outside their experiential connection, but are what they are precisely thanks and through this relationship. The relationship therefore is *preceding* the distinction, and *performing* the separation into a subjective and an objective side, which exist only insofar as this relational activity of experiencing takes place, and cease to be "a" subject and "an" object as soon as the activity comes to an end.

Experience is thus a relational event, a process of becoming, as Whitehead clearly states. The reciprocal statement also holds: becoming is the performing of an activity of experience. Experience, becoming and relationality are in fact the three cornerstones of Whitehead's cosmology. It must be emphasized that Whitehead speaks of cosmology, for the notion of experience is usually related to human agents, or at most to living beings. For Whitehead, experience is the general mark of activity concerning the whole of reality. There is nothing real apart from its being experiencing or experienced. And the very distinction between experiencer and experienced is a relative one: as he clearly states in the passage quoted above, experience institutes, so to speak, its two sides but does not find them already constituted before its taking place. Experience is thus a dual event, endowed with two sides, which are the two faces of the same coin. Experience is the relation of the two, understood in a very active sense and

not in a merely contemplative manner. As a matter of fact, experience thus conceived is the ground for the creative advance of Nature (*cf.* § 5).

Clearly, this conception of experience raises a number of problems and Whitehead is fully aware of them. What is usually thought of as the subject is not pre-existing but comes to being through its own process of experiencing, and thus realizes itself. It individuates itself in this process, and thus becomes "a" one deriving from a "many" that precedes it. Its identity is not pre-given but is achieved, properly speaking, thanks to the process of becoming, which corresponds to a process of prehending. This is the reason why Whitehead adopts the notion of subject-superject in PR. The subject is what is subjected to its own experiencing rather than being the subject of experiences. The subject does not pre-exist its own experience but is created by it, and hence is an outcome, a superject.

The object, in turn (§ 9) is to be understood in temporal terms. The object is not something merely and passively given, but is what influences the whole process of experiencing and thus conditions its own becoming an object. This is the peculiarity of Whitehead's notion of creativity (§ 10), which clearly displays a non-linear temporality, for the object in a way is given only if it functions as an inducer of the very process *by which it will be objectified*. This is what Whitehead calls "real potentiality", contrasting it to mere logical or formal potentiality. The world is the "many" that induces a new instance of experience, which in a way consists in letting this many appear. The appearance of the many is given in a – every time different – perspective which is the actual occasion of experience taking place and then passing away. Concrescence and transition are the two interrelated terms adopted by Whitehead in his speculative philosophy in order to account for the passage of nature. Being can thus be equated to becoming.

Consciousness, which is usually conceived as the place of experience, is in this perspective relegated to but an extreme of an infinite scale of interactions that, at the other end, is represented by physical transmission of data. Whitehead's model is in this respect very close to Leibniz's (§ 16). But Whitehead's most important source of inspiration here is Maxwell's field theory of physics, a conception that allows Whitehead to get rid of any concern related to the difference between matter and mind, for in this perspective matter is already active and thus mind does not need to be separated from it, as it happens in the dualistic models inspired by Descartes. Mind is already in nature because nature is not the inert field of mechanical impulses that modern science usually depicts. But in this naturalized outlook of experience there seems to be no place for human individuality, and Whitehead is well aware of this problem, which he links

to Hume's and William James' rejections of a permanent I or soul as the ground for individuality and personality. Likewise, Whitehead feels the need to explain why there is a tendency, in common sense, to think of subjects in terms of enduring entities. His proposal is framed within the recovery of Plato's χωρα evoked at the beginning (*cf*. § 18). Its meaning is ontological: χωρα is seen as the nexus of experiencing acts, or actual entities as Whitehead calls them, and thus properly speaking "is" nothing but their own mutual immanence. Thus χωρα in Whitehead's perspective is not something different from the process of actualization and perpetual perishing that characterizes nature. Rather, it is the "place" of this process, but a place that does not pre-exist the process. Mutual immanence pervades the whole of reality. As Whitehead writes:

> The conclusion follows that our consciousness of the self-identity pervading our life-thread of occasions, is nothing other than knowledge of a special strand of unity within the general unity of nature. It is a locus within the whole, marked out by its own peculiarities, but otherwise exhibiting the general principle which guides the constitution of the whole. This general principle is the object-to-subject structure of experience. It can be otherwise stated as the vector-structure of nature. Or otherwise, it can be conceived as the doctrine of the immanence of the past energizing in the present. (AI, 187f.)

In the end, χωρα is the name for the cohesion of nature, of which human consciousness of self-identity is but a special mode, certainly not a different principle. This is fully understandable if we consider that we experience thanks to our bodies and not as disembodied minds, as Whitehead affirms in § 22. Thus, experience is the achievement of the immanence of nature within itself in its incessant becoming, that is, in its creative renovating of itself. As Whitehead writes:

> There is thus an analogy between the transference of energy from particular occasion to particular occasion in physical nature and the transference of affective tone, with its emotional energy, from one occasion to another in any human personality. The object-to-subject structure of human experience is reproduced in physical nature by this vector relation of particular to particular. It was the defect of the Greek analysis of generation that it conceived it in terms of the bare incoming of novel abstract form. This ancient analysis failed to grasp the real operation of the antecedent particulars imposing themselves on the novel particular in process of creation (AI, 188).

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Unity and Multiplicity:
The Road to Openness.
Plotinus in Henri Bergson's Thought

Magda Costa Carvalho

Looking for the influence of the Plotinian thought on Henri Bergson's philosophy is not an easy task to fulfil. I've been devoted to it for two or three times in the last few years and each time I try to think about the subject I end up with what seems to be another piece of the puzzle. This would obviously be a good thing if I didn't also end up with different ideas about the whole picture represented in that puzzle. Mainly for this reason, my paper didn't end up being what it was initially planned to be, and for that I have to apologize deeply. And because the presence of Plotinus in Bergson's work is a subject to which I can't find a linear answer, my title is now more of a future path to cross, than a present reality.

Establishing some connections between Bergson and the Plotinian legacy becomes a challenge when we consider some important statements and notes.

First, let's consider two statements, by Bergson himself:

1. In 1915, Bergson writes a letter to an interpreter of his work (H. M. Kaller), and says "you guessed my sympathy for Plotinus – a sympathy that I have never had the occasion to talk about in my books, but that the audience of my courses know well"[1].

2. In 1939, two years before his death and therefore on a stage of intellectual maturity, Bergson writes a letter to Charles Werner where he states: "Plotinus was always my favourite philosopher"[2].

Secondly, let's consider three statements by French philosophers who lived at the time and who knew Bergson's philosophy considerably well:

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[1] "[...] vous avez même deviné ma sympathie pour Plotin, - sympathie dont je n'ai jamais eu occasion de parler dans mes livres, mais que les auditeurs de mes cours connaissent bien." Bergson (2011), 480.

[2] Bergson (2002), 1626.

3. Émile Bréhier, who was Bergson's student and follower at the Sorbonne, remembers the times when he assisted at some of Bergson's classes on Plotinus. Bréhier states that Bergson was at ease with the *Enneads*, explaining Plotinus's texts just as if he recognized in Plotinus "another himself" (*un autre lui-même*).[3] Some years later, Bréhier himself would be responsible for a French translation of the *Enneads*[4] and also a book on Plotinus.

4. Antonin-Gilbert Sertillanges, also a contemporary and a countryman of Bergson, published a famous book called *Avec Bergson*, where he states that a few weeks before his death, Bergson said "I confess that, in all ancient philosophers, Plotinus is the one that is more akin to my way of feeling."[5]

5. According to Floris Delattre, another of Bergson's contemporaries and countrymen, professor at the Sorbonne, Plotinus was among the "maîtres véritables" of Bergson, from which work he quoted by heart.[6]

Thirdly, let's consider some notes that I find important regarding Bergson's books:

6. Plotinus is not explicitly mentioned on the two first books published by Bergson: *Essai sur les donnés immédiates de la conscience*, in 1889 (translated as *Time and Free Will*), and *Matière et Mémoire*, in 1897 (*Matter and Memory*).

7. The name of Plotinus doesn't appear until 1907, in *L'évolution créatrice* (*Creative Evolution*).

8. Even then, Plotinus is mentioned very briefly, mostly in footnotes: moreover, he is the less mentioned author from all that are quoted in the book.[7]

9. But, if we take a look at Bergson's *Cours*, or more specifically at the notes of his students that came to be published and known as his courses at the Collège de France and also at the École Normal Supérieure, there are several occasions where Bergson presents the Plotinian thought with great care and depth. There were several courses dedicated to Plotinus: either to the explanation of his philosophy, or to the study of some parts of the *Enneads*. In Bergson's exact words, Plotinus was "a theme of literal

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[3] Bréhier (1949), 107-108. Pierre Magnard develops this same idea on his "Bergson interprète de Plotin": Magnard (1989), 111-119.
[4] Plotin (1924-1936).
[5] Sertillanges (1941), 45-46.
[6] Delattre (1947), 12.
[7] Riquier (2009), 211.

explanation during several years". [8] Furthermore, Bergson gave other courses on philosophical subjects like free will, time or memory, and in most of them we can find some very deep explanations of Plotinus's theories.

All this statements, facts and notes considered, Bergson's readers face what seems to be an enigma. A question that major Bergsonian experts, such as Rose-Marie Mossé-Bastide or Émile Bréhier, have tried to answer in the past decades: what is the explanation for the duality of attitudes? Informally, in his letters, conversations and classes, Bergson has no problem showing that his way of thinking is close to Plotinus. But formally, in his books (at least in his first ones), Plotinus is practically avoided or briefly mentioned in some footnotes.

Rose-Marie Mossé-Bastide devoted a very interesting book to the subject, *Bergson et Plotin*, where she says that Bergson is both repulsed and attracted by Plotinus.[9] But she claims that this apparent contradiction is a sign of a much deeper connection between the main intuitions of both philosophies. So, where does this all leave us?

Neoplatonism not being my field of expertise, this paper builds on the Bergsonian viewpoint and I will try to give some meaning to Bergson's statements, and also to his silences, regarding Plotinus. My aim is to present some aspects of Bergson's readings of Plotinus's work.

And it's clear to me that Bergson is not just another of Plotinus's readers. He is, above all, a philosopher who builds on his predecessors. He doesn't want to simply read Plotinus; Bergson tries to be the heir of all who came before him, speaking for himself whenever the feels that the tradition has given wrong directions to human thought.

I will briefly present the perspective from which Bergson refers to the Plotinian thought in *Creative Evolution*, calling it "*the last word of Greek philosophy*".

I will, then, explain Bergson's words when he says "*we need to reverse Plotinus points of view*", positioning his own metaphysical standings in relation to the metaphysics underlying Plotinus's work.

And, finally, I will try to point what may be seen as deeper sympathies between the metaphysical perspectives lying beneath the surface of each of the two authors' ways of looking to reality. In the *Two Sources of Morality and Religion*, the last original book written by Bergson, in 1932, he

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[8] "thème d'explication littérale pendant plusieurs années au collège de france", Bergson (2002), 1626.
[9] Mossé-Bastide (1959), 9.

metaphorically says about Plotinus that "*it was granted to him to look upon the promised land, but not to set foot upon its soil*".

1. Plotinus: *the last word of Greek philosophy*[10]

Creative Evolution is the book published by Bergson in 1907, where he deals with the philosophical concept of life, presenting what can be called a *metaphysical evolutionism* or a *bio-philosophy.*[11] In the book's fourth chapter, Bergson reviews the history of philosophy regarding what he considers to be two common theoretical illusions that have come to distort Western metaphysics, since the Greeks. These perpetuated errors have been obstacles to the full comprehension of life in its essence as movement and becoming.

The first illusion can be stated like this: *the intellect supposes that the unstable can be thought by means of the stable, the moving by means of the immobile.*[12] The second illusion has to do with the fact that the intellect *makes use of the void in order to think the full.*[13] It is the first that most interest our purposes because it identifies the ontological inversion that Bergson intents to operate with his philosophy.

Why, according to Bergson, are these misconceptions so common in the history of philosophy? Because they both originate in the intellect's own structure, that is to say, they were born from the fact that we import into speculation mental procedures that are evolutionarily made for action. What Bergson designates as static habits of the mind.

Human intellect or intelligence is the set of all discursive faculties of the mind [14] and, evolutionarily speaking, it grants human beings the knowledge that they need to face the practical conditions of existence and, thus, to secure the perfect fitting to the environment[15]. This is to say that intellect is prepared to think inert matter and that all our mental structures were developed in the image of solids.

In metaphorical terms, human perception and thought are crossed by a cinematographic tendency that represent all that is continuity of movement

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[10] Bergson (2007a), 325 / (2005), 353.
[11] See Carvalho (2012).
[12] Bergson (2007a), 273 / (2005), 297.
[13] *Ibid.*, 274 / 298.
[14] l'intelligence c'est l'ensemble des facultés discursives de l'esprit, originellement destinées à penser la matière, tandis que l'intuition porte sur l'esprit, Bergson (2002), 906.
[15] Bergson, (2007a), v / (2005), xix.

and change through a series of stable forms. And forms of perception, Bergson tells us, are snapshots of a continuity of change.[16]

The Lumière brothers had shown the world the cinematographic process in 1895 and it soon became very popular. Bergson sees it as an excellent opportunity to metaphorically explain that the intellect reconstitutes *what is being made* with *what is already made*, representing as real stops (things) the continuity of a progress (becoming).[17] Progress is described in terms of results, in a mental mechanism of a cinematographic kind,[18] such as it happens when we take a series of pictures and project them, so that they replace each other rapidly. Each picture represents a fixed moment and together they try to reconstitute the movement that underlies all of them. The projected pictures may give us the illusion of motion or even symbolize movement; but they don't capture the transition itself. The intellect describes as stable and immobile what is instability and movement, and becoming soon boils down to a collection of things. Just like a cinematograph, intellect places itself outside the becoming of things because it reconstructs them artificially. And its results are but an imitation of the very stuff of reality.

This is *the natural metaphysic of the human intellect*, its natural trend, and, according to Bergson, it constitutes the fundamental framework of Greek philosophy, from Zeno to Plotinus. Arguments like the arrow or Achilles and the tortoise are based on the reconstruction of movement according to an arbitrary decomposition of simple acts in a set of complex stages. The origin of such paradoxes lies simply in the intellect's confusion between movement and the concept of space: even though the geometric line of the trajectory could be divisible into several different and exterior parts, the same could not be said about the movement that, in itself, is a simple act. The human analogy of duration with material extension is, then, purely exterior and misleading.

The Platonic philosophy of Ideas faces the same problem: the immutable Forms (the intelligible world) are presented as the first origin and last explanation of the moving reality (the sensible world). The Ideas

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[16] Bergson (2008), 258-259/ (1935), 209.

[17] Bergson states on a letter that "Dans le même *Essais sur les données immédiates*, j'insistais sur la nécessité où se trouve l'intelligence de n'envisager dans le temps que des moments, dans le devenir que des états, dans le mouvement que des positions, et de reconstituer alors artificiellement la mobilité, en combinant des immobilités les unes avec les autres. Je n'ai pas qualifié ce procédé, dès alors de cinématographique. Mais le cinématographe n'était pas encore inventé." Bergson (1972), 734.

[18] Bergson (2008), 305 / (2005), 332.

extract what is ontologically definite in the moving reality and are considered to be the very essence of reality; they are placed outside space and time. The sensible reality is, then, considered to be incomplete, things are characterized as the negative attributes that are left after the intellect has made its rational extraction, they are seen as a diminution or degradation of true reality (immutable and intelligible).

From Plato to Plotinus, Bergson finds a common cinematographic mechanism that regards universal becoming by means of sequenced snapshots. Ancient philosophy, placing itself in the intellect's point of view, assumes as an ontological criterion *that there is more in the motionless than in the moving,*[19] and therefore changing reality is seen as a metaphysical degradation (a non-being, according to Plato; the derived reality of the sensible world, according to Plotinus). Greek philosophy adopted, then, the innate tendency of the intellect and this is why Bergson claims that, "in a certain sense, we are all born Platonists".[20]

If we install our minds in the becoming, what we see is totally different from what the history of metaphysics has showed. We see reality as a transition, and not as solid stages, so metaphysics started with this original sin, forgetting that ontologically there is more in the transition than the series of states through which the intellect represents it.[21]

Henri Gouhier aptly states that, in the fourth chapter of *Creative Evolution*, we find a Bergsonian history of philosophy that is mostly a Bergsonian philosophy of history.[22] Bergson finds a common thread in Western metaphysics: the Moderns continued the metaphysical work done by the Greeks and, extending it with a new philosophy of nature (mechanism), naturally opposed Being to Becoming, sacrificing a true reading of reality.

What about Plotinus? Why does Bergson highlight his name, out of all Greek philosophers, when he identifies the deviation of classic metaphysics?

In one of his courses, Bergson refers to Plotinus as a magnifying glass that allows us to examine the philosophies of Plato and Aristotle.[23] And Plotinus's influence was so decisive that modern metaphysics, Bergson claims, "did little more than repeat him, often in a weaker form".[24]

In one of the condensed footnotes that the reader wishes he could unfold, Bergson states, after pointing to Aristotle's misconceptions on

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[19] *Ibid.*, 316 / 344.
[20] *Ibid.*, 49 / 56.
[21] *Ibid.* 312 / 339-340.
[22] Gouhier (2001), xv.
[23] Bergson (2004), 52
[24] Bergson (1972), 1058.

movement, that: "Especially have we left almost entirely on one side those admirable but somewhat fugitive intuitions that Plotinus was later to seize, to study, to fix."[25]

In a historical perspective, Bergson sees Plotinus as the last word of Greek philosophy. But for the building of Bergson's own philosophy he was much more than that. Let us not forget that Bergson lectured the course on Plotinus in 1898, when he was preparing his third book (*Creative Evolution*) and, thus, facing the problem of enlarging his philosophy from the minds point of view to the whole of reality. This means that the question of unity and multiplicity, one of the main issues in Plotinian work, was certainly on his agenda. I consider that Plotinus was, then, a source of inspiration, as I will try to explain.

Plotinus' *admirable, but somewhat fugitive intuitions* gave an ambience for Bergson's metaphysical evolutionism and, later, for his representation of the *telos* of the human spirit. Reality as an unfolding of virtuality is something common to both philosophers, even with different metaphysical standings. So is the idea of a spiritual destiny for man, conceived as a spiritual union, identification with the principle of reality (mysticism).

But, as we know, Plotinus shaped the understanding of Plato's philosophy in the following centuries. And we think that, despite claiming that Plotinus overcomes Plato's ontological dualism (as I will explain later on), Bergson's reading of Plotinus still seems very attached to a static or "substantialistic" understanding of concepts like the sensible world or the intelligible world, that may be more of a Platonic inspiration than Plotinian.

2. Plotinus: *it was granted to him to look upon the promised land, but not to set foot upon its soil*[26]

Why is Plotinus referred to as having *admirable, but somewhat fugitive intuitions*?

It is important to highlight that the few references to Plotinus in Bergson's books don't question the in-depth knowledge that the French philosopher had of Plotinus's work. In 1897 and 1898, in the Collège de France, Bergson taught two courses: on Tuesdays, a course on Plotinus's psychology, and on Saturdays a course on the 4th *Ennead*. In 1899, he was responsible for another course fully dedicated to Plotinus's philosophy.

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[25] Bergson, (2007a), 325 / (2005), 354.
[26] Bergson (2008), 234 / (1935), 188.

And in several other courses, in different years, either dedicated to the Greek philosophy, either to themes such as the soul, memory or freedom, Plotinus was a frequent reference.[27]

In these courses, Plotinus is given a great importance in the whole of Greek philosophy[28]. He is presented as both its systematiser and its last stage because his works represent what Bergson calls "a triumph over the dualism" of the one and the multiple. Plotinus is, then, presented as the philosopher that allows overcoming the dualism that arose from the Ancient ontological division between the intelligible part of reality and positive data.

Through the derivation process, an atemporal ontological dependence, from the One to the Intellect and then to the Soul, and also through the conversion or aspiration from multiple beings towards the One, Bergson claims that Plotinus establishes the unity of Being.

This is not explicit in Bergson's books. In the fourth chapter of *Creative Evolution*, that we mentioned earlier, Bergson's goal is to put some distance between his own philosophical proposals and the Greek metaphysics for the sake of the book's own argument. And for that reason, Plotinus is said to have *admirable but somewhat fugitive intuitions*. But through the courses, the reader can understand to what the word "admirable" refers to.

Alongside with the regain of the ontological unity, there is also another very important aspect of Plotinus thought that is fundamental to Bergson's own philosophical views: the concept of multiplicity. This was the concept that got Bergson to the intuition of duration and therefore it is the core of the Bergsonian philosophy since the author's first book, *Time and Free Will: An Essay on the Immediate Data of Consciousness*.

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[27] We shouldn't forget that what came to be published as Bergson's courses was not written nor published by Bergson himself. It is a set of notes taken by some of his students and that were proved to be reliable. Nonetheless, Bergson read some of his students' manuscripts and had the occasion to correct them in some pages. Despite Bergson's statements in his will – "Je déclare avoir publié tout ce que je voulais livrer au public. Donc: *j'interdis formellement* la publication de tous manuscrits ou de toute portion de manuscrit de moi, qu'on pourrait trouver dans mes papiers ou ailleurs. J'interdis la publication de tout cours, de toute conférence qu'on aurait pu prendre en note ou dont j'aurais pris note moi-même. J'interdis également la publication de mes lettres […]" ("Testament de Bergson" (2002), 1669-1670) – in the 90's some of his main readers and specialists, like Henri Gouhier and Henri Hude, and also his legal heirs, decided that Bergson's courses should be published considering the growing of public interest in his thought. In 2002, his correspondence was also published.
[28] Bergson (2000), 136-146.

Bergson introduces two kinds of multiplicity: a quantitative multiplicity and a multiplicity without quantity. The first is the multiplicity of material things, that we can count and number. As for the latter, it is the multiplicity of conscious states through which we can feel the real duration. Bergson calls it an indistinct interpenetration or qualitative multiplicity. [29] This multiplicity had been left aside by Western philosophy, Bergson claims. [30] The psychological states of mind have been considered to succeed to one another and the inner experience wrongly fractioned in a sequence of different moments. I now think that it was with the help of Plotinus's *admirable intuitions* that Bergson was able to revise the traditional philosophical categories and rescue that specific multiplicity (multiplicité *sui generis*)[31], even if Plotinus himself has not taken this leap. Let's elaborate.

Bergson says that in Plotinus's philosophy, particular souls are distinct due to a principle of multiplicity within the universal Soul. He calls this principle "multiplicity of expansion or multiplicity of natural fecundity"[32] and it explains why particular souls coexist without confounding. It is my opinion that this may have been the point where Bergson saw a way of preserving both unity and multiplicity without having to sacrifice one to save the other.

This is a claim based on the contents of another of Bergson's famous lectures. This time, the series of his *Gifford Lectures*, on the "Problem of Personality", held at the University of Edinburgh in 1914, specially his second and third conferences, dedicated to Plotinus, the philosopher that is said to have given Greek metaphysics its complete form.[33]

The originality of Plotinus's philosophy has to do with the fact that "Of all the ancient philosophers, Plotinus was the only one who was really a psychologist"[34], a profound psychologist,[35] Bergson says. Meaning that, according to Bergson's readings, human soul is Plotinus's central theme.

It is important to clarify that when Bergson refers to the psychological realm, he has in mind not the pathological and therapeutic model of Psychology, closed to Medicine and Physiology (that was later institutionalized), but the framework of the spiritualist philosophy of his

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[29] Bergson (2007), chapter II.

[30] Bergson (2011), 481.

[31] *Ibid*.

[32] Bergson (2000), 142.

[33] Bergson (2011), 418-439. The English translation is only available in Bergson (1972), 1051-1071.

[34] Bergson (2011), 421 / Bergson (1972), 1054.

[35] *Ibid.*, 424-425 / 1057.

time.[36] Thus, Psychology was the philosophical study of human mind or spirit, not in a narrow anthropological perspective, but using research on memory, dreams, laughter or consciousness, as footholds to build a metaphysical thought. Reality is a psychological virtuality of tendencies because it is an internal impetus, succession or continuity of interpenetration of states, irreducible to mere quantitative and instantaneous juxtaposition of material things in space.[37]

This being the case, when Bergson claims that Plotinus was a profound psychologist, he means that when thinking about the intelligible and the sensible reality, Plotinus doesn't place himself in the objective or external point of view of made entities: spirit and nature as absolute realities. His predecessors, Plato and Aristotle, had done so by studying the spirit on the outside and, thus, drawing out what is purely impersonal and indefinite.[38] Instead, Bergson claims, Plotinus adopts the perspective of an inward experience, experience of virtuality, and tries to answer the question of *how can the same being appear to itself as an indefinite multiplicity of states and nevertheless be a single and identical person*:[39] the equilibrium between unity and multiplicity.

Bergson directs his presentation of Plotinus's work through this hermeneutic matrix, considering that this is the true fingerprint that Plotinus left in Western metaphysics. It is also what makes Plotinus the most modern of all ancient philosophers, Bergson says.

Describing how human beings are able to retrace a course that is the inverse of the divine procession, the conversion, Plotinus re-establishes a legitimate metaphysical link between multiplicity and unity. Through this spiritual path, the particular soul addresses eternity, where multiplicity can re-join unity and the incarnate spirit may return to the Intellect and, from there, be identified with the One. It is in his interpretation of the process of conversion that Bergson sees a possibility to reject the former dualistic separation between unity and multiplicity, to reverse the traditional metaphysical standing that highlights unity, immobility and eternity over multiplicity, mobility and time.

If we understand that there is a specific multiplicity made for states of mind (*états d'esprits*) or spiritual processes, the qualitative multiplicity or multiplicity of mutual penetration, we won't end up supposing that ontologically there is more in an immobile eternity than in the moving reality. Thus, we will avoid the major illusion of Western philosophy,

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[36] Carroy *et al* (2006).
[37] Bergson (2007a), 340 / (2005), 370-71.
[38] Bergson (1995), 217.
[39] Bergson (1972), 1055.

realizing that the stable is not the criterion to think the unstable, neither the intelligible the criterion to think the sensible or unity the criterion to think multiplicity.

But, despite being admirable, these are fugitive intuitions that we can only find the trace in Plotinus writings. For this reason, Bergson claims that *it was granted to him to look upon the promised land, but not to set foot upon its soil*.

3. Plotinus: *we need to reverse his points of view*[40]

I think that by now it has become clear that the presence of Plotinus in the Bergsonian philosophy is not a case of straight or linear influence. Nor is it the case of a declaration of antagonism between two perspectives. I constantly feel the urge to return to this subject because, like Rose-Marie Mossé-Bastide claims, this can be the *locus* for deeper links between the main intuitions of the two philosophies. And again I feel that the whole puzzle isn't yet totally revealed.

Bergson claims that Plotinus had all the intuitions it took to build a new metaphysical framework, reversing definitively the old traditional dualism and allowing the spirit to solve one of the most ancient philosophical problems: the coexistence of unity and multiplicity. Instead, Plotinus remained faithful to the Greek intellectualism and, placing the intellect's reasoning above the data of sensibility, Plotinus recognizes that all action is a degradation of contemplation, all movement a degradation of immobility; all time a degradation of eternity.

Bergson's philosophical project builds itself precisely as a counterpoint to this Greek ambiance, and his aim is to bring back eternity to duration. In his own words, eternity had to descend from the heights where the Ancient philosophers had placed it,[41] and be brought back to a notion of reality as something that grows, is enhanced and creates itself indefinitely.

This is one of the main features of Bergson's concept of philosophy: to think backwards.[42] To philosophize is to invert the usual direction of thought,[43] that is, the natural metaphysics of the intellect that Greek philosophy has adopted as its main structure. In a sense, philosophy is an

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[40] "il nous faut renverser son point de vue". Bergson (2011), 425.

[41] Bergson (1972), 1192.

[42] Moore (1996), *Bergson. Thinking backwards*, Cambridge: Cambridge University Press, 1996.

[43] Bergson (2011a), 1422-1425.

effort to exceed the human condition, to go beyond the natural inclinations of the intellect. And it is a constant effort of the mind.

Just like with the prisoners of Plato's Allegory of the Cave, philosophy compels the spirit to look into another direction. But unlike Greek philosophy, the brightest light is not an upper light; it is an inner light. Bergson states that Physics studies matter and it's at ease in terms of spatiality, that is to say, an infinite and infinitely divisible medium that can be decomposed quantitatively.[44] But Metaphysics can't go in the same direction, Bergson claims. It has to remount the incline that Physics descends,[45] being the only way to lead matter itself to its foundations and origin. To remount the incline that Physics descends is, here, the exit of the cave.

The Bergsonian inversion of traditional metaphysics represents the building of *a cosmology as a reversed psychology*, in Bergson's own words.[46] It is the way to recover an authentic knowledge of reality and coincide with qualitative multiplicity, the continuous progress of inner becoming and not its interruption represented by material things. It would be a reversed psychology precisely because it opens the mind to the whole, instead of closing it in the narrow limits of the individual.

As we have seen, Plotinus stands out from all other Ancient philosophers for the psychological structure of his thought. But, his perspective is still affiliated to the Platonic conception underlying the Allegory of the Cave: on the one hand, unity is still the original and loftiest element and, on the other hand, through an inward experience, spirit can place itself in eternity, retracing the path of emanation through conversion.

Since emanation is a process of separation and ontological degradation, *contemplation*, *immobility* and *eternity* represent the metaphysical realm of perfection. The One is conceived as being out of Time, since duration and change were considered to be signs of imperfection and, thus, the process of generation was understood as a derivation from simplicity. And Bergson objects: "I believe that this is the opposite of the truth and that, while giving full weight to certain elements of Plotinus's doctrine, we must inverse his point of view."[47]

The concept of perfection as an absolute entity, the first principle and ultimate ontological reality, is rejected by Bergson's work. The philosopher replaces it with a continuous and dynamic creation and sees the absolute as

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[44] Bergson, (2007a)*,* 157 / (2005), 172.
[45] *Ibid.*, 209 / 227-228.
[46] *Ibid.*
[47] Bergson (1972), 1058.

action, *movement* and *duration*: it is a reality that we can perceive through the intellect, but that we need to complete with the work of intuition.

Bergson's reading of Ancient philosophy is meant to show that an ontologically *self-sufficient reality is not necessarily a reality foreign to duration* and change.[48] It is a reality of psychological nature, and not physical or mathematical, and it is not a static or fixed entity.[49]

In his course on Plotinus, Bergson stresses that Plotinus's philosophy was also very important due to the passage or transit that it introduced from the intelligible to the sensible reality. This was an important step to overcome the Platonic dualism, Bergson claims. The first principle, also called the One, is a generative principle that gives rise to everything through an ontological dependence. The One is the principle of causality and it is virtually everything else, meaning that emanation is a process of developing a single idea. Mossé-Bastide considers that this way of looking is kin to Bergson's conception of the metaphysical evolution of life (*élan* or *impetus*).[50]

Contemplation is the *telos* of the ontological dynamics toward perfection. But Bergson considers that Plotinus doesn't go any further than that: again, an *admirable, but fugitive intuition*. Aiming for action would mean to step back.

This way, Bergson aims to restore Plotinus's metaphysical perspective of an inward experience, an experience of psychological virtuality, but redirecting it in a way that mind can acknowledge perfection in an essence of action and mobility.[51] This mobility is the creative effort that underlies all reality, its living principle or becoming. And this means that *not all is given* in eternity because true reality is undetermined creation and duration marks the living being with its imprint, just like the artist who draws a picture or the painter who is before his canvas:[52] to both of them, time is not an accessory, duration is one with the form, meaning that the result of their work is an irreducible novelty.

Philosophy's task is to study it, forcing human the mind to see beyond its natural inclination to materiality and to the all-given and turning the spirit to itself or, in Bergson's own words, "homeward"[53].

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[48] Bergson (2007a), 298 / (2005)*,* 324.
[49] Bergson (2002), 1626.
[50] Mossé-Bastide, 1959.
[51] Bergson (2009), 1272.
[52] Bergson, (2007a), 340 / (2005), 370.
[53] *Ibid.,* 368 /402.

When I planned this paper, I had thought it differently (time was also not an accessory for me): what I draw to be an introduction, the explicit presence of Plotinus in Bergson's works, turned out to be almost the entire work. And so, I would like to end with an open door for future opportunities to reflect upon the subject.

In his last original work, *The two sources of morality and religion*, published in 1932, Bergson presents a new notion, "the open", applied to different spheres (the open soul as opposed to the closed soul; open society as opposed to closed society; open morality as opposed to closed morality; open religion as opposed to closed religion). By analogy, we can also apply it to another important Bergsonian concept: open nature as opposed to closed nature.

The closed refers to the crystallization of the dynamic reality of becoming in static concepts and readings of all life manifestations, just like material things are circumscribed by spatial limits. The open grasps the impetus of life (the psychological virtuality of an inner causality) as dynamism, according to the temporal rhythm of duration. The first has a quantitative matrix, the latter a qualitative one. The closed is, then, a static stop in the course of the open: between one and the other there is a difference of nature, and not only of degree. For that reason, going from one to the other is only possible through an intensive experience that Bergson calls the metaphysical intuition: a leap from mere external decomposition of reality to a coincidence with its proper and inner movement.

This process of opening is a distinctive print of the mystic soul, being in those human beings much more than just a cognitive feature of the mind. It's a spiritual destination not only of an individual, but also of all mankind, since the mystic seeks to reach other human beings, spreading around into his own activity the creative dynamics of life. Morality and nature bound in this opening process, being an ontological but, above all, a spiritual process. I can't help but feel that, despite all the contextual and foundational differences between both philosophies Bergson quite systematically presents and that I have tried to explain, the reading of Plotinus was an important source of inspiration to the last destination of human soul.

It may be that some day I will return to it. It may be that some day I will see it clearly.

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A Bergsonian Reading of Plotinus' Theory of Time

José C. Baracat Jr.

To say that Plotinus is a remarkable inspiration for Henri Bergson's work is not a novelty.[1] This does not mean, of course, that Bergson is a Plotinian scholar whose aim is to explain Plotinus' texts or a Plotinian philosopher who develops his own work under the guidelines of this thinker. Bergson's concerns, aims and interlocutors are certainly very different from those of Plotinus. Nonetheless, despite their differences, comparative studies of Plotinus and Bergson are possible, and several have been written.[2]

Although some similarities between them will inevitably emerge in this paper, my intention is not to show that we can find Plotinian ideas in Bergson's work or that Plotinus somehow anticipates Bergson's ideas; instead, my aim is to employ Bergsonian concepts in order to analyze some features of Plotinus' theory of time that do not seem to me to be clear and stressed enough in Plotinian scholarship. Thus, to this end, I will displace from Bergson's philosophy the concepts of "duration" and "qualitative multiplicity" to interpret Plotinus' definition of time as "the life (*zōḗ*) of the soul in a changing movement from one state (*bíos*) to another" (III. 7 [45]

2. A few examples in chronological order: Jolivet (1933), 347-367; Scharfstein, (1943), 120-127; Bréhier (1949), 105-128; Mossé-Bastide (1959); Rutten (1960), 430-452; Foubert, (1973), 7-73; Magnard (1990), 111-119; Hancock, (2002), 139-164.

11. 44-45).[3] I must warn the occasional reader that I do not claim that the Plotinian and Bergsonian concepts studied here are perfectly identical or interchangeable. This paper is an attempt to shed light on the originality of Plotinus' understanding of time, often misunderstood and overlooked by contemporary philosophers: even a sympathetic reader of Plotinus as Bergson fails to perceive that Plotinus' theory escapes his critiques of previous conceptions of time, which for him mistake time for space.[4]

Henri Bergson is renowned for, among other reasons, the innovative way he conceives time as duration, insisting that such a pure or real time must not be confused with space – a confusion made by all philosophers before him, as Bergson seems to think.[5] Prior to such a distinction between time as duration and space is the fundamental Bergsonian distinction between two kinds of multiplicity: the continuous or qualitative multiplicity, on the one hand, and the discrete or quantitative multiplicity, on the other.[6] Time as duration must be understood as a continuous, qualitative

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3. All references to Plotinus' *Enneads* follow the *editio minor* of Paul Henry and Hans-Rudolph Schwyzer (1964, 1976, 1982).

4. As far as my knowledge goes, there is not any lengthy comparison between Plotinus' time and Bergson's duration. Hancock (2002), 149, quickly touches on the topic, but does not seem to find questionable that Bergson reproves "Greek intellectualism," Plotinus included, for mistaking "time for space because it [i.e. Greek intellectualism] thinks the former, reality itself, is accessible through the spatializing and quantifying of abstractions."

5. It is well known that Martin Heidegger does not see Bergson's concept of duration as innovative, but rather as the very vulgar understanding of time that has become the traditional concept of time and remained the same since Aristotle (*Being and Time*, § 5).

6. The concept of duration spans over all Bergson's works, although it apparently undergoes some mutation. In the *Essai sur les donées immédiates de la conscience*, from 1889, the experience of duration seems to be more properly a phenomenon of consciousness, something psychological, internal to our mind; in *Matière et mémoire*, from 1896, he suggests that duration could be extended also to external things; and by *L'Evolution créatrice*, from 1907, he thinks that duration is immanent to the universe, duration being vital for understanding the creative feature of evolution. This certainly is an important issue, but I will not be concerned with it here, as I my aim is not Bergson, but Plotinus. Even though it would perhaps be easier to apply the less psychological notion of duration we find in Bergson's later works to Plotinus' concept of time, I will restrain myself in this paper basically to Bergson's earliest reflections on duration in the second chapter of the *Essai* ("De la multiplicité des états de conscience. L'idée de durée"). For a comprehensive and conciliatory interpretation of Bergson's nuanced views on time and duration, see Worms (1997) and Deleuze (1966), 71-91. My reading of Bergson is deeply influenced by these authors.

multiplicity, while space – or any definition of time that does not describe it as Bergsonian duration – is a discrete, quantitative multiplicity. A quantitative multiplicity is homogeneous and spatial; and because a quantitative multiplicity is homogeneous, it can be represented by a number, counted, compared, employed by science. The qualitative multiplicity that time as duration is, on the other hand, is heterogeneous. In duration, heterogeneity does not imply juxtaposition – or it implies juxtaposition only retrospectively, when we think about the content of our consciousness; so, when we establish temporal or even causal relations between such content, we are not really talking about time as duration, but about an artificial, fixed reality that is more properly space. Therefore, because the qualitative multiplicity that duration is is not only heterogeneous, but also uninterrupted and interpenetrating, it cannot be represented by a number, counted, compared. Duration, for Bergson, is continuous progress and heterogeneity.[7]

Although "we experience an incredible difficulty to represent to ourselves duration in its original purity,"[8] let us be satisfied and close this section with one noteworthy text from *Durée et simultanéité*. This passage is interesting because, besides coming close to summarizing the idea of duration, it also resembles a famous passage from the *Essai*,[9] in which the same example occurs, and introduces in addition the important implication that our awareness of duration precedes our conventional idea of time:

> Il n'est pas douteux que le temps ne se confonde d'abord pour nous avec la continuité de notre vie intérieure. Qu'est-ce que cette continuité? Celle d'un écoulement ou d'un passage, mais d'un écoulement et d'un passage qui se suffisent à eux-même l'écoulement n'impliquant pas une chose qui coule et le passage ne présupposant pas des états par lesquels on passe: la chose et l'état ne sont que des instantanés artificiellement pris sur la transition; et cette

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7. As Deleuze (1966), 30-31, formulates it, we have two types of multiplicity, "l'une est représentée par l'espace (ou plutôt, si nous tenons compte de toutes les nuances, par le mélange impur du temps homogène) c'est une multiplicité d'extériorité, de simultanéité, de juxtaposition, d'ordre, de différenciation quantitative, de différence de degré, une multiplicité numérique, discontinue et actuelle. L'autre se présente dans la durée pure; c'est une multiplicité interne, de succession, de fusion, d'organisation, d'hétérogénéité, de discrimination qualitative ou de différence de nature, une multiplicité virtuelle et continue, irréductible au nombre."

8. *Essai*, 81. This is maybe the reason why Bergson employs many images in order to make us grasp what duration is; see Bréhier (1949) for an approximation of Plotinus' and Bergson's methods of using sensible images to convey realities that language fails to express.

9. *Essai*, 76-77.

transition, seule naturellement expérimentée, est la durée même [...] Une mélodie que nous écoutons les yeux fermés, en ne pensant qu'à elle, est tout près de coïncider avec ce temps qui est la fluidité même de notre vie intérieure; mais elle a encore trop de qualités, trop de détermination, et il faudrait effacer d'abord la différence entre les sons, puis abolir les caractères distinctifs du son lui-même, n'en retenir que la continuation de ce qui précède dans ce qui suit et la transition ininterrompue, multiplicité sans divisibilité et succession sans séparation, pour retrouver enfin le temps fondamental. Telle est la durée immédiatement perçue, sans laquelle nous n'aurions aucune idée du temps.[10]

In the history of philosophy, Plotinus appears to have been the first thinker who explicitly ties time and soul.[11] More than simply linking them, he subordinates time to soul and conceives it as a product of soul.[12] In the path to this little revolution that Plotinus accomplishes in the eleventh chapter of the treatise *On Eternity and Time* (III. 7 [45]), we find him (from chapter 7 to 10) analyzing and refuting conceptions of time that somehow associate time with sensible motion (either one single motion or the totality of them, either regular or irregular), with what is moved, or with something belonging to motion . This is not the place to discuss all Plotinus' arguments

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10. *Durée et simultanéité* , 54-55. I omitted an important sentence – "Elle est mémoire, mais non pas mémoire personnelle, extérieure à ce qu'elle retient, distincte d'un passé dont elle assurerait la conservation; c'est une mémoire intérieure au changement lui-même, mémoire qui prolonge l'avant dans l'après et les empêche d'être de purs instantanés apparaissant et disparaissant dans un présent qui renaîtrait sans cesse" – because I will not apply the notion of an impersonal memory to Plotinus' theory of time.
11. The relation between time and the soul for Aristotle is complex. As the number of motion, time can only exist if there is something that counts motion, namely the soul (Physics 4. 12, 223a 21-29). But not few interpreters have refused to accept that Aristotle did hold such a view in a strong sense; see e.g. Festugière (1934) and Sorabji (2006), 84-98. For a fuller discussion and review of important interpreters, see Coope (2005) 159-172.
12. I will not discuss here which soul or part of the soul is the responsible for time, as I have discussed it in Baracat Jr. (2013). I take it to be the whole of the soul, human souls therein included. I will also evade, for brevity's sake, the task of discussing eternity and the derivation of time from it, and many other difficulties involved in Plotinus' treatise "On Eternity and Time" (III. 7 [45]) as well. Fortunately, there are several excellent studies on the topic: Beierwaltes (1995); Clark (1944), 337-358; Smith (1996), 196-216; Smith (1998), 335-344; Trotta (1997).

against these conceptions;[13] however, there is one passage that I would like to highlight. After refuting theories that identify time with the sensible motion, Plotinus turns his attention (in III. 7 [45] 8. 23-69) to the Stoic thesis that time is the *diástēma* (the interval, extension or distance) of a sensible motion. Plotinus agrees that such interval can have a determined quantity, that is, that it can be measured by something, but denies that the *diástēma* might be time, since "this definite quantity (τὸ τοσόνδε) will be measured by the space (τῷ τόπῳ),[14] because the space which it has traversed is a certain amount of space, and this will be the distance (διάστημα) covered; but this is not time but space" (III. 7 [45] 8. 32-35; cf. *Ibid*. 12. 58-61).[15] What is noteworthy in this passage is not so much that Plotinus clearly understands space, time, and motion as independent of one another but, more than this, that he observes that the measured (and measurable) interval or extension of a motion is not time (nor motion), but rather space, since it is space that possesses a determined quantity capable of measuring motion – motion itself being complete at each instant and not measurable in itself, as Plotinus arguesin VI. 1 [42] 16. It is impossible, as he says in the sequence of the passage I quoted, to quantify or numerate continuous and uninterrupted realities like time and motion; and this is what shocks him in Aristotle's definition of time – as he understands it, of course. For Plotinus, to treat time as a measure or number is a sign that Aristotle does not understand that time is a continuous reality or does not perceive that he is investigating motion (and finding space) instead of time.[16]

We can now grasp how Bergson's concepts of duration and qualitative multiplicity begin to make sense for the understanding of time in Plotinus: when we manage to measure in an artificial way time (and also motion) – as science does – we are actually bringing in space and mixing things.

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13. Speaking very generally, (i) all motion is in time and (ii) there are many different motions both in quantity and in quality, so that it would not be possible to say which time is. See Beierwaltes (1995), 214-237 for a complete analysis of Plotinus' arguments and sources; and also Smith (1996), 204-209 for a briefer account.

14. The status of space or place in Plotinus is far from clear, contrarily to those of time and movement, which he discusses more lengthily. I have tried do delineate what Plotinus has in mind when he speaks of *tópos* and *khṓra* in Baracat Jr. (2013).

15. I quote Armstrong's translation (1966-1988) throughout in this paper.

16. Plotinus criticizes Aristotle' view of time as "measure" or "number" of movement in III. 7 [45] 9. It goes without saying that Plotinus does not takes into consideration that, for Aristotle, time is the number that we count in motion, and not a number per se with which motion is measured; and also that Aristotle is fully conscious that he is investigating motion and that time is a continuous reality, whatever reality it has.

Spatial motions can be measured by space or by an artificial notion of time that is always constructed upon our apprehension of motion and space. Time can be measured and become a measure only if we employ regular sensible, spatial motions to create definite, countable intervals.[17] This, however, is very distant from the nature of time for Plotinus.

Briefly, time is not the *diástēma*, that is, the result of a motion or a discrete reality that can be measured. Actually, time itself is not a measure either.[18] When we measure motion by time, for instance, we are employing a measure that depends on our notion of number and that is posterior to our awareness time; it is a notion that we acquire when we establish simultaneities between our apprehension and the regular movements that we perceive. Plotinus in fact will hold that time is a kind of motion but, before doing it, he first makes clear that such motion is not sensible at all.

This, therefore, is what time is not: time is not a measure, it is not measurable, it is not divisible, it is not apprehensible (not sensibly, at least), and it is not to be confused with sensible motion or with space, two realities that are different from time. So what is time? Here is the central circumscription of the concept of time in Plotinus:

> For as the soul presents one activity (ἐνέργειαν) after another, and then again another in the sequence, it produced the succession (τὸ ἐφεξῆς) along with the activity, and went on with another thought (διανοίας) coming after that which it had before, that which did not previously exist because thought was not active, and the present life <of the soul> (ἡ νῦν ζωή) is not like (ὁμοία) that which came before it. At once (ἅμα), therefore, the life is different (ἄλλη), and this "different" had a different time (χρόνον ἄλλον). So the distention (διάστασις) of life had a time, and life's continual progress (τὸ πρόσω ἀεί) has a continual time, and life which is past has a past time. So, if someone says time is the life of soul in a transitional movement from one

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17. Cf. III. 7 [45] 12. 28-37, where Plotinus is interpreting Plato's *Epinomis* 978d1-6: "For since it was not possible for the soul to delimit time itself (οὐκ ἦν τὸν χρόνον αὐτὸν τῇ ψυχῇ ὁρίσαι), or for men by themselves to measure each part of it since it is indivisible and ungraspable (ἀοράτου ὄντος καὶ οὐ ληπτοῦ), particularly as they did not know how to count, the god made day and night by means of which, in virtue of their difference, it was possible to grasp the idea of two, and from this, Plato says, came the concept of number. Then, by taking the length of the interval (διάστημα) between one sunrise and the next, since the kind of movement on which we base our calculations is even (ὁμαλοῦ), we can have an interval of time of a certain length, and we use this kind of interval as a measure; but a measure of time, for time itself is not a measure (οὐ γὰρ ὁ χρόνος αὐτὸς μέτρον)."
18. VI. 1 [42] 5. 19: "Quite certainly time is not a quantity" (οὐ γὰρ δὴ ποσότης ὁ χρόνος); cf. III. 7 [45] 12. 37.

state to another (ψυχῆς ἐν κινήσει μεταβατικῇ ἐξ ἄλλου εἰς ἄλλον βίον ζωὴν), what would he seem to say? (III. 7 [45] 11. 35-45; Armstrong's translation, modified).

So, in the end, time for Plotinus is a kind of movement too, but the movement of the soul, which is not a sensible, physical one. Plotinus also emphasizes that time is an act, an activity (*enérgeia*), a process. It must be noted that, in the context of Plotinus' critiques of other theories of time, there occurs the word *diástēma*; now, when he wants to define his own conception of time, time is no longer described as a *diastema*, but it becomes a *diástasis*: time, therefore, is not the result of a movement, as the suffix –*ma* implies in Greek, but the very movement, the action, the process that the suffix –*sis* expresses. Time is the distention itself, and not the result of the distention of another thing. As we see in the passage above, time originates from and is the very ever-changing activity of the soul. All activities of the soul – everything that is implied in the soul's *diánoia*, which is its proper way of thinking – are successive, never identical activities.[19] Plotinus refines this first identification of time with the soul's activity by saying that time is the continuous and always different *diástasis* of the life (*zōḗ*) of the soul. This means that time is a qualitatively multiple *diástasis* because of the ever-changing *bíoi*[20] of this life-*zōḗ*.

Plotinus effects a progressive specification of the notion of time. As Beierwaltes says, "*bíos* designates the state of life that is different at each moment (*modus vivendi*), opposed to *zōḗ*, that designates the 'power of life' in an act that supports *bíos* […] *bíos* also designates the phases of life that are distinct through the 'before' and the 'after'."[21] That is, *zōḗ* is broader

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19. III. 7 [45] 11. 50-55: "Instead of intelligible movement, the movement of a part of the soul; instead of identity, of invariability and of permanence, the impermanence in oneself, the making of one thing and then another; instead of inextension and of unity, the image of unity, that which is a unity in continuity; instead of what is already infinite and complete, the going forth into infinite, always towards the successive."

20. I had translated *bíos* as "state" due to the lack of a better term, but this is actually not a good translation; in fact, it is terrible, to the extent that "state" suggests inertia and does not convey the dynamism expressed in *bíos*. "Life" again would be better, although a bit confusing, as the word is being employed to translate *zōḗ*. Armstrong has "way of life", but it also does not seem fair to *bíos*, in my opinion, for it gives the idea that the soul changes its "way of life", and this is absolutely not the case. What *bíos* expresses, as I will stress in the sequence of the text, is closer to Bergson's qualitative multiplicity than to what these translations express.

21. Beierwaltes (1995), 260. It would be interesting to compare this passage in Plotinus to Proclus' *In Timaeum*, II. 288-289 (to which Beierwaltes refers in the

and more fundamental than *bíos*; it defines something that is not dead, thus implying not only the vitality and liveliness, but also the totality and integrity of a living being; it comes close to the *enérgeia* of a being. *Zōḗ* can spread through the entire Plotinian metaphysical universe and acquire different qualities according to different ontological levels of reality. The term *bíos*, on the other hand, expresses a certain specificity in the *zōḗ* of a being, and it is defined in the context of the *zōḗ*. The difference between them is extremely important when Plotinus says that time is the *zōḗ* of soul changing from one *bíos* to another: this means that time depends ontologically not on soul as such, but on a peculiar feature of soul at a specific level of reality.[22]

When Plotinus expresses time as the *enérgeia* of the soul, we can still think of it as something not continuous – at least, the idea of continuity does not immediately follow from the idea of *enérgeia* – or something that would be a result, and not a process, or still as something external to the soul – which Plotinus expressly denies at III. 7 [45] 11. 59-60. Now, when he defines it as the *zōḗ* of soul, we cannot separate time from the soul anymore, and this definition conveys the idea of an unceasing reality in a stronger way: the soul must possess *zōḗ* if it is to exist, that is, if and as long as there is soul there is its *zōḗ*. *Bíos*, therefore, or more precisely the successively changing *bíoi* through which the soul passes, is what makes the *diástasis* of the *zōḗ* qualitatively multiple. So, as it seems, time does not originate exactly from the *enérgeia* or from the *zōḗ* of the soul, but from the successively changing *bíoi*. We may think of the activity or life of soul in its higher parts, which are not separated from intellect and do not involve time, but are more properly near to eternity; and we may also think of the activity and life of the soul in the unitive experience with the One: in these cases, the *zōḗ* never ceases, but its *bíos* seems to do. Perhaps we may say that the soul's *zōḗ* is merged or dissolved in the life of the intellect or of the One. In fact, however, the succession of *bíoi* cannot cease either , or it would be the end of time and of the sensible world.

There is a remarkable passage in the treatise "On Eternity and Time" (III. 7 [45]) where Plotinus invites us to imagine the soul coming back to the intelligible, what would mean the extinction of time and cause the disappearance of the sensible world. In this passage, he asks us to imagine the stopping of the soul's *bíos*, but not of its *zōḗ*:

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same page), where Proclus discusses *bíos* and *zōḗ*. But I must leave this for other occasion.

22. I would like to thank Professor Rasius Makselis for sending me the text of his still unpublished conference "Plotinus and Proclus on the Life of Intellect", which was very important for this paragraph.

We must understand that […] that this nature is time, the extent of *bíos* of this kind that goes forward in even and uniform changes progressing quietly (τὸ τοιούτου μῆκος βίου ἐν μεταβολαῖς προιὸν ὁμαλαῖς τε καὶ ὁμοίαις ἀψοφητὶ προιούσαις), and which possesses continuity of activity (συνεχὲς τὸ τῆς ἐνεργείας). Now if in our thought we were to make this power (δύναμιν) turn back again, and put a stop to this *bíos* which it now has without stop and never-ending, because it is the activity of an always existing soul, whose activity is not directed to itself in itself, but lies in making and production – if then we were to suppose that it was no longer active, but stopped this activity, and that this part of the soul turned back to the intelligible world and to eternity, what would there still be except eternity? […] If, then, when soul leaves this activity and returns to unity time is abolished, it is clear that the principle of the movement in this direction [i.e. towards the sensible] and this *bíos* of soul generate time (III. 7 [45] 12. 1-12, 19-22; Armstrong's translation slightly modified).

In conclusion, we are not allowed to say that Plotinus and Bergson hold an identical idea of time; yet, Bergson's innovative meditation on duration does help us to better understand Plotinus' also innovative meditation on time. We must have in mind that the Plotinian soul is not the Bergsonian consciousness, and that Bergsonian duration is not Plotinian time; however, we still can see the basic features of the first in the latter: time, for Plotinus, is a qualitatively multiple *diástasis* that is not only heterogeneous, but also uninterrupted and interpenetrating, for the *zōḗ* of soul is uninterrupted and its movement of change from one *bíos* to another cannot be conceived otherwise than as continuous and interpenetrating. Plotinian time cannot be represented by a number, counted, and it is not a measure for movement either; it is continuous progress and heterogeneity – differently from eternity, which is the life-*zōḗ* of intellect: eternity is *zōḗ* and intellect is heterogeneous, but this *zōḗ* is *adiástatos*, without distention, as Plotinus says (III. 7 [45] 2. 37, 6. 35, 11. 53), and does not involve succession or change.

I will finish this paper by doing what I said I would not do: to say that Plotinus somehow anticipated Bergson, not in respect to time, but regarding the analysis of movement. As I mentioned above, in treatise III. 7 [45] Plotinus clearly distinguishes time, space, and movement, when he is criticizing other philosophers' conceptions of time. Plotinus' arguments in this work lead us directly to chapter 16 of the first part of the treatise "On the Genera of Being" (VI. 1 [42]), written almost immediately before III. 7 [45]. In this chapter, when Plotinus refutes what he thinks to be Aristotle's conception of movement, he also draws an insightful distinction between movement, time, and space, stating that movement is complete and in act at

each instant. Although Plotinus does not mention Zeno's paradoxes there, he could have refuted them by arguing that the paradoxes are born from the confusion between movement – always complete, in act, and uninterrupted while it is happening – and space, which can have magnitude and therefore can be divided. Is this not exactly what Bergson says in the *Essai* (85), that "l'illusion des Éléates" comes from their identification of movement – a series of indivisible and sui generis acts – with the homogeneous space under them? I do not think that Bergson had Plotinus in mind yet; his lectures on Plotinus date from about ten years after the *Essai* (first published in 1889), and by the time of this book, Bergson was also working on his thesis on Aristotle's conception of place, who had dismissed Zeno's paradoxes by distinguishing actual and potential infinity, thus having certainly inspired Bergson's own refutation. However, in my opinion, Bergson's arguments seem to be closer to Plotinus' understanding of these realities than to Aristotle's. But this is matter for another paper.

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THE UNITY BETWEEN BEAUTY AND GOOD: ETHICS OF CONTEMPLATION AND THE CREATION OF GARDENS

MOIRIKA REKER

The aim of this paper is to propose the fruitfulness of considering Rosario Assunto's aesthetic thought in the design of the current/future city, namely in what concerns gardens. We will look upon aesthetic contemplation firstly by presenting Assunto's view of the Middle Ages, to then draw some brief links between Rosario Assunto and Plotinus in order to understand how an ethics of contemplation should be borne in mind in the creation of gardens.

Rosario Assunto, a 20th century Italian philosopher who is a major voice in what concerns the Philosophy of Landscape, considered philosophy to be "a reflection on infinity"; "an interrogation around de meaning and value of the finitude of man and the world, a research on the manner how finitude may, say, become infinite"[1]. Hervé Brunon defines Assunto's aesthetic thought as a "philosophy of nature centered on contemplation ethics"[2], which is particularly clear in his works on Landscape and on the Garden. Another area hold dear to Assunto, and that can shed some light on the matter in hand, has been the Middle Ages, which Assunto has defined as a "civiltà estetica" (aesthetic civilisation), for he considered this to be a period that was founded on the ontology of the beautiful, on a metaphysics that had its base in aesthetics. As he puts it, the entire relationship with the divine was effected through aesthetic contemplation, which was the ground for the very possibility of knowledge of reality, given that, for the medieval man, the ontological status of goodness and beauty were equivalent and could even be placed in terms of synonymy, with good being inherently beautiful. Assunto considers medieval religion to be an artistic religion, identifying a clear relation between religion and art: life (and death), and thought revolved around religion; and religion recognised the capacity of the image to educate, translate, and to validate and give form to otherworldly

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[1] Assunto (1993), 25.
[2] Brunon (2003), 10.

promises. Therefore the image had a dominant role not only during the religious ritual but also in daily life. Through art the medieval man could glimpse the otherworld; the image being the main medium through which man reached God. Each visible beauty was a reflection of that invisible, absolute, beauty. This was not only present in architecture or painting, but also in the liturgy: furniture, clothing, decorations, rituals and ceremonies, music, light, and so forth, as Assunto promptly underlines. All form is beautiful insofar as it manifests some similitude with divine beauty (sensible beauty is the reflection of invisible beauty, which in turn mirrors beauty itself, absolute beauty); Beauty is the intelligible that reveals itself, that *appears*[3] (becomes visible); that which prompts contemplation is a direct image of the otherworld, which, by being present all around, as Assunto claims, sustains an aesthetic religion that identifies in itself both absolute transcendence and absolute immanence. Thus art (in its various expressions) was an attempt to make the intelligible visible. This was particularly evident in the metaphysics of light: Light is not only considered source of beauty, but as the most delightful, the most sublime of beauties, given that it irradiates directly from heaven and it is what makes everything visible – the formal and efficient cause of the beauty of everything visible is physical light[4] – the more luminous an object, the more beautiful it was considered, as a higher luminosity revealed a higher "materialisation", as it were, of divine beauty. Material light was thus a clear analogy of spiritual light, in a straight connection between light and God: God is beauty because God is pure light. If light was the highest expression of beauty, the making of the invisible visible through art and light is masterly achieved in the gothic cathedral, through stained glass windows that colored and filtered light, which changed and moved accordingly to the movement of the sun – the cathedral of Chartres being a whole school of thought, built upon and around the *Timaeus* –. Assunto thus sustains that in the medieval city the relation with the divine was effected through art, primarily through architecture[5], with the gothic cathedral reaching upwards, as an image of the universe, of the cosmos[6].

Such profound analysis of the importance of aesthetics in medieval thought *and life* is mirrored in Assunto's thought on Landscape and on the

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[3] See Halfwasser (2008), 16. Halfwasser clarifies the similitude of beauty and image in that they have the common characteristic of an immediate revelation of the process towards transcendence.
[4] See de Bruyne (1994), 78-82.
[5] See Pau (2012), 257-269.
[6] See Mennini, (2008).

Garden. For the purpose of this paper, we will mainly focus our attention on the Garden.

In his thought on the art of the Middle Ages, Assunto demonstrates that art, specially architecture, was the medium par excellence for contemplation. In fact, we can trace a link between the role of the city in medieval times and the role of the landscape and garden today. Both are specific places for contemplation, and both are contemplated while one is immersed in them. Buildings, and cities are not to be experienced from the outside, detached or distanced, but from within. There is a specific form of contemplation that occurs when living in the object of contemplation, while experiencing it. But let us first consider the garden and the place it holds in Assunto's thought.

Assunto defines the meaning of the garden as a search for an ideal nature: through our work (through art, with nature) we recover an image of "intact nature", what we imagine nature to have been like in the origin, but without any trace of savagery: "domesticated but not artificial"[7]. That image of nature, that ideal which lies at the foundation of the many and varied ways in which man has planted and ornamented gardens justifies, for Assunto, the garden *as* thought and *for* thought. In the garden there is an identification of philosophy of nature, philosophy of art, philosophy of art-as-nature and philosophy of nature-as-art, and that is the reason why the foundation of the thought of the garden manifests as aesthetic – and here Assunto grounds his thought on the idea of a "total philosophy as a total aesthetics" in the spirit of Hölderlin, Hegel and Shelling's fragment, understanding "the supreme act of reason which all embraces as an aesthetic act, being solely in Beauty that the Truth and the Good unite; Beauty as the supreme idea of reason".

Both art and nature intervene in the creation of the garden as well as in its fruition. In his essay *Philosophy of the garden and philosophy in the garden* Assunto explains the relation of art and nature:

> Such is the meaning of the garden while unity of art and nature – art as nature, nature as art –, by which the contemplation of the garden-art identifies with the fact of living in the garden-nature. Contemplation as life, life as contemplation: aesthetic fruition that unifies in itself life (which, while life that contemplates, thinks itself as object and subject at a time in the act of contemplation) and the thought that in the garden lives itself while that which thinks and is thought [...]. Fruition, therefore, as unity that by identifying the contemplation *of* nature as thought that thinks nature, and the contemplation *in* nature as life that lives nature, makes nature and thought

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[7] Assunto (2003), 49-50.

coincide, constituting nature as thought that we think in contemplation. Unity of thought and life as unity of contemplation (*of the garden* since it is nature as *real thought*) and of life *in the garden* that is thought as *ideal nature*.[8]

The garden is, thus defined as the place for contemplation, where man, through aesthetic contemplation comes to terms with his own temporality: aesthetic contemplation as a reflection on life and on oneself that has nature (landscape and garden) as the place where the individual "exonerates his own temporaneous and accidental finitude, becoming invested with infinite temporality; and therefore gains awareness of his own absoluteness as existence not *in* time, but *from time*"[9]. In the contemplation of nature we find ourselves to be from temporality, and not just an ephemeral event "*in* the fleeting time of temporaneity"[10]. Assunto gives particular emphasis on the distinction between temporality and the temporaneous: both landscape and the (historic) city belong to, or are images of, temporality, a continuous experience of time, where the past is conserved and continued in the present, and the present anticipates the future; while the temporaneous excludes infinity, being the absolute finite, "the continuous annihilation of the present in face of the inexorable emerge of the future[11]": the past as the *not anymore* of the present, the present as the *not any more* of the past and the *not yet* of the future, and so on.

So, the temporaneous is the always now that has no history – as is example the industrial city where each new construction has, in the moment it is planned or built, already, as it were, an "expiration date", everything being about consumption, with the correlate primacy of *function* over *existence*; unlike the historic city (which is the image of temporality *as* history, where one can see a continuity of time, from distant pasts, to recent past, to present) and landscape (which is the image of temporality *as* nature, of the cycles of life, death and renovation), Assunto explains, is the spatial image of time.

Related to the experience of time, the importance of contemplation, and thus of the garden, lies also in the fight against the hegemony of consumption: the aesthetic experience of nature as the conciliation of beauty and the useful. In *Il giardino perduto e i giardini da ritrovare* (the lost garden and the gardens to discover), Assunto draws on the myth of genesis: if the primordial paradise designated the union of the beautiful and the useful,

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[8] *Ibid*., 56.
[9] Assunto (2005 [1994]), 66.
[10] *Ibid.*
[11] *Ibid*., 60.

becoming the paradigm of rural landscape until the rise of industrial agriculture, the original sin is repeated each time we choose consumption over contemplation[12] (not only by transforming landscape into territory, by industrialising agriculture but also in the mass production of animals for human consumption – produced as things are produced – "industrialised cattle breeding in series"[13], which, by being the negation of infinity is the absolute contradiction to landscape, aside from being an aggression both to the animas and to ourselves, as is, Assunto also notes, the substitution of animals with machines or the reduction of cattle to an industrial product[14]). The contemplation of a landscape (and of the garden as "landscape in small"[15]) engages a vital sentiment, for, unlike the contemplation of a painting, it requires a physical, bodily immersion: we contemplate, with all our physical senses, through strolling, crossing or staying at a place, that is to say, we contemplate landscapes and gardens immersed in them, while we live them, and that gives us a feeling of living, a vital sentiment experienced in physical lived spaces as ultimate foundation of life.

The aesthetic category – answer to the ugliness and the destruction not only of landscapes and real gardens, but also of the Garden as vital idea – by being placed as central to speculative inquiry imposes itself as an alternative to hedonism, to the hegemony of blind consumption and functionalism. Assunto stresses that his thought on beauty is to be traced back to Plato, or better yet, to Neoplatonism, even his reference to "The Oldest System Program of German Idealism" acknowledges that the use of the term *beauty* is in its highest platonic sense[16]. This concept of Beauty as Good and Truth has, obviously, its roots in Plato, and is particularly important to Plotinus, for whom the desire to ascend towards pure beauty is presented as the utter good, the end desired by all things. In Enn. I.6 [1], 6, the first is Beauty, which is also the Good; from it directly derives the

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[12] Assunto (1994 [1988]), 143-169.
[13] Assunto (2005 [1994]), 64.
[14] *Ibid*., 107.
[15] Assunto (1994 [1988]), 126. It is pertinent to briefly touch upon the distinction and similarities of landscape and garden: both are to be experienced from within, as noted above. Both are finite spaces open to infinity (thus excluding indoor spaces), but while Landscape is above all or predominantly the immanent and spontaneous production of nature, with the presence of the three realms of nature; the Garden is the collaboration of autopoiesis and human work. Furthermore, the Garden is always about an idealised nature, a representation of an ideal nature.
[16] *Ibid*., 165.

Intellect, which is the manifestation of Beauty. The Good is source and beginning of Beauty.[17]

Assunto traced his thought back to Plotinus on the idea that even inanimate beings participate in contemplation, as all beings aspire to contemplation and all reach this end according to their specific nature (each contemplating in their own way) (Enn. III, 8 [30], 8). Assunto does not provide us with a clear distinction between sensible and intelligible beauty, but his definition of aesthetic contemplation reminds us, again, of Plotinus' contemplation as return path to the One. Here we must pause to briefly focus on the sense organs. In Plotinus there is a primacy of vision and, in a lower degree, of hearing. This sense "reduction" was, if we may say so, "Plato's fault", as he took sight as the clearest of the senses. Blumenthal argues that this focus on sight is probably motivated by the ability sight presents to shed light on the higher forms of cognition, and thus sight is used to illustrate how one hypostasis relates to another, each contemplate the other above it and is informed by it, just as what happens with the act of vision, and the relation of the sense of sight and an object that is observed.[18] Unfortunately though, this centrality of sight led to the long lasting undervaluing of the other sense-organs, which has contributed to the aesthetic experience being, for quite a long time, mainly focused on sight; which has had a profound impact on aesthetics, art, the association of landscape to a picture, a scene or set, with impact as well on environmental issues that are beyond the scope of this paper and that we do not have the space to address here. Nevertheless, and returning to Plotinus and the role played by the senses, sensation for Plotinus is "the soul's cognition of sensible objects through the instrumentality of the body"[19], of course one can argue that in Plotinus the Soul is not directly affected by what happens in the body, notwithstanding, the sensitive faculty deals with the information provided by the senses, which then is treated by the reasoning faculty.

Assunto refers Plotinus again in the identification of doing and contemplation. The extent to which Plotinus identifies contemplation with a creative act is probably most clearly expressed in "On nature, contemplation and the one" Enn. III.8 [30]. Here it is said that action exists due to contemplation and due to the object of contemplation, therefore contemplation is the end for those that act (III.8 [30]6). Even brute action is a form of contemplation, for even the most vulgar or basic act has, at its base and as its cause, the impulse to contemplate the greater, the desire to return to the One. Nature is contemplation and object of contemplation and

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[17] Plotinus, *Enneades* I.6 [1] 9. We follow Baracat (2006) analysis and translation.
[18] Blumenthal (1971), 68 f.
[19] *Ibid*., 70.

therefore nature generates. Her production unveils to us as contemplation, as it results from the contemplation that remains contemplation and does nothing else besides that, but, by being contemplation, creates.

In the same line of thought, for Assunto, by contemplating nature (in landscape or in the garden) we contemplate life itself, and through this act of contemplation of the infinite temporality, we contemplate the absolute, that which is beyond our own finite temporality. Here, we must turn again to Plotinus, in his view of nature as contemplation: nature is what truly bridges intellect and the sensible.[20] Nature does not have to turn upwards or downwards. Nature remains in herself, seeing in herself the origin and perfect model of the sensible universe.

We'll move now to the last part of this chapter. As we've seen previously, it is because the garden is considered living beauty – beauty where both the idea of nature and real nature are present – that in the garden we live contemplation and contemplate life in the very act of living, and it's in that sense that the idea of garden substantiates as place of ideal and real unity with the landscape. And this is also why, for Assunto, the fruition of the garden while art of nature and nature of art is incompatible with any consumption or use. Assunto vehemently opposes the "green space", that mere stretch of grass, conceived for the masses to enjoy leisurely time. This does not mean that Assunto is somewhat elitist, quite the opposite in fact, but for him the aesthetic experience of the garden has nothing to do with a supposed democratisation of the public space, it is about a totally different kind of freedom, as it is one founded on responsibility and in beauty as symbol of moral good. It is a matter of contemplation, and, for Assunto, "consumption is antinomic"[21] with contemplation. In the garden, beauty and utility are undistinguishable, coincidental, whereas in the green space function and utility exist without regard for beauty.

The relation of the garden with art (art which by subjecting nature's mechanical causality liberates nature from any determinism), is absent in the mere stretch of grass. The city-green space, conceived as open space and not as "open finitude"[22] is not a place for contemplation, it cannot provide us with the silence, clarity or even the space for that peculiar meditation that is achieved through a relationship between the individual and temporality. In the use of gardens for leisure or commercial fairs the noise of sound

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[20] Baracat (2006), 140.
[21] Assunto (2003), 88.
[22] Landscape is an outdoor spatial finitude, as it is not unlimited but is open to infinity, and image, as we've seen above, of the temporality of nature.

equipment and the like kill the silence of the garden, denying its existence as an aesthetic place.

This does not mean, however, that Assunto is against gardens that are useful. Quite the opposite! Beauty is intrinsic to usefulness: a beautiful garden is useful in its beauty. The problem of utilitarian green spaces is when space becomes a useful and hedonistic utility and the merely useful gets detached from beauty[23], as we have seen in the idea of the original sin being repeated every time we forget that primordial unity of man and nature in the Garden of Eden.

This leads us to our next and final point: how is the unity between good and beauty of importance in the design of the city?, and how can usefulness apply to and be of relevance in the design of gardens that are not mere green spaces, and that respond to the need to consider new options aimed at the self-sustainability of the city.

In order to answer those questions we would like to propose a closer look to a specific kind of garden – the Orchard – to consider if a unity of beauty, good and usefulness can be reached in such garden, as it might be pertinent to consider if the city shouldn't welcome, again, the growing of food, recovering what we're told was the origin of the garden[24]: the enclosed space where vegetables were grown and protected, alongside medicinal herbs, fruit and nut trees...

From the aesthetic point of view, the existence of urban orchards allows citizens to enjoy the beauty of various trees in the city (being productive does not diminish their aesthetic quality). The orchard in the city garden welcomes the experience of aesthetic contemplation hold dear by Assunto, since nature made art can manifest itself as much in ornamental shrubs as in fruit trees. The increase in biodiversity achieved by the presence of orchards also becomes an enhancement of aesthetic experience, reflected not only in the increase in objects of contemplation, but also, and especially, in the quality of the aesthetic experience itself: the animal presence enhances the possibility for the aesthetic fruition of nature in the city and gives us the possibility to elevate our own lives to a pure temporality – the presence of the animal kingdom is, as Assunto puts it, the very presence of life; a picture

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[23] See Serrão (2013), 80 f.

[24] Maurizio Corrado traces the origin of the garden to a nomadic, feminine culture, prior to the advent of agriculture (which would have erupted as a sedentary, masculine culture). The garden preceded agriculture: the first was a women's "discovery" in the passage from nomadic to sedentary life, while the latter a man's "invention". Cf. Corrado (2012), 19-30 and 31-41. Cf. also Jackson (1994), 123. For the history of the garden, Cf. Michel Baridon (1988).

in which we are mirrored and in which we recognise ourselves as living[25] And, as also stressed by Assunto, aesthetic contemplation is inseparable from ethical contemplation; inseparable from the meditation of the individual who contemplates himself in the contemplation of life living in the garden – in the orchard.

We follow Assunto in the critique of the green space as a place devoid of the possibility for contemplation (or if not devoid, definitely limited). The city may welcome places destined to physical exercise, walking the dog, enjoying concerts, markets and the like, but those should not be confused with gardens, for a garden has in its root and as its end a totally different experience.

For anyone contemporary, the aesthetic perception of nature may, perhaps, not be exactly put in terms of a return to a higher realm, but maybe as a path to an inner realm, notwithstanding, it is still essentially about being immersed in the element that is quite the source and sustenance of life. The aesthetic pleasure one experiences in the landscape and in the garden stems from the multiplicity of physical sensations of our being *there*, merging *living in* with *living from*.[26] The fact that the orchard is productive, that it results in edible fruits that can be picked and savored by a passerby, wandering in contemplation while immersed in that garden, does not make it fall into the category of the loathed green space, on the contrary, the orchard *is* a place for aesthetic contemplation *and* for the production of food, insofar as this production is made with contemplation in mind, in accordance with nature, that is to say, not an industrial orchard, but a *living* orchard, one where beauty and good unite, allowing us to experience the foundation of existence, to experience infinity.

This is why we propose that the design and construction of gardens should bear in mind the unity between Beauty and Good, as contemplation shows to be of great importance in the experience of the garden, and, therefore in the aesthetic experience of the city.

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[25] See Assunto (1994 [1988]), 101-108.
[26] See Serrão (2013), 149.

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Infinity and Unity: From Eriugena to Whitehead

Maria-Teresa Teixeira

Eleven centuries separate Johannes Scotus Eriugena from Alfred North Whitehead. And yet, Eriugena's philosophy bears a special similitude with Whitehead's. Most strikingly, both philosophers endeavoured to build an open metaphysical system; and both of them rejected dualistic conceptions of consciousness and nature that set human beings apart from the rest of the world, such as the Modern and Contemporary worldviews. They both share a holistic approach to reality and emphasise a relational togetherness of all creatures, as well as the immanence of God in his creation. The endeavour to produce a cosmological system that is all embracing and all-inclusive is common to both philosophers. Both could be seen as panentheistic for their understanding of the notions of infinity and unity, creation and creativity, commencement and becoming. Eriugena's notions of God as encompassing all creation and as the Creator, as both immanent and transcendent strongly resemble Whitehead's last two chapters in *Process and Reality* that depict time and eternity, God and the world. For Eriugena "Creator and creature are one"[1]; for Whitehead God is the first instance of creativity, even though God is not in time. Creativity is the ultimate because it is actualized only in virtue of its accidents. And "God is its primordial, non-temporal accident" (PR 7 [11]).

Eriugena and Whitehead's systems thus share a profound affinity. Their relational and holistic approaches to reality allow for the establishment of an open metaphysical scheme. Their understanding of nature and reality is directed towards a comprehensive, all-encompassing framework that includes every being and every potential. God, creation and creatures intermingle and unite in an irreversible "cosmic conspiracy"[2] in which beginning and end are beyond temporality. God is immanent in creation, but

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[1] *Periphyseon*, II 528B.
[2] Plotinus, II *Ennead*, 3, §7.

he also transcends it. He is both temporal and eternal. In God the many unite in the one and persist as such.

Eriugena's *magnum opus* the *Periphyseon*, or *De Divisione Naturae*, opens up with a general definition of nature that comprises all things that are (*ea quae sunt*) and all things that are not (*ea quae non sunt*). This is "the first and fundamental division of all things."[3] Nature can be divided into a fourfold partition: 1) "that which creates and is not created;" 2) "that which is created and also creates;" 3) "that which is created and does not create;" 4) that which "neither creates nor is created."[4] The first species opposes the third, and the second opposes the fourth.[5] The first species is easy to identify as being God, i.e. "the Cause of all things that are and that are not;"[6] the second one as the primordial causes; and the third one as those things that come into being in time and space. The fourth one, however, raises some difficulty: "it is classed among the impossibles, for it is of its essence that it cannot be."[7] The first and the fourth species are the same; they are God. In the first instance, Eriugena is referring to God as the commencement and cause of all creation. In the Plotinian way, it is from this cause that all things proceed. It is from it that the universe "proceeds by a wonderful and divine multiplication into genera and species and individuals, and into differentiations […]."[8] In the second instance, God is the end of all things, to which everything returns. When God stops creating, everything rests in him.

The theory of God as uncreated and creating, as well as uncreated and non-creating becomes clearer if we bear in mind that what is fundamental in Eriugena's philosophy is his first description of nature as that which includes being and non-being. In non-being he includes God, and all the creatures as far as they are uncreated; he also includes potentialities. Also, the created world is present in non-being when relations of hierarchy of created natures become more or less enhanced and thus stand out as relevant or not. This founds a relational ontology with different levels of reality that emphasises being. Eriugena writes:

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[3] "primam summamque diuisionem" *Periphyseon* I 441A.

[4] "1) "eam quae creat et non creatur"; 2) "eam quae et creatur et creat"; 3) "eam quae creatur et non creat"; 4) "quae nec creat nec creatur" *Ibid.* I 441B – 442 A.

[5] *Ibid.* I 442 A.

[6] "in causa omnium quae sunt et quae non sunt" *Ibid.* I 442B.

[7] "sed quarta inter impossibilia ponitur cuius esse est non posse esse." *Ibid.* I 442A.

[8] "creata sunt in genera et species et numeros differentias quoque caeteraque quae in natura condita considerantur mirabili quadam diuinaque multiplicatione procedit," *Ibid.* II 526D.

> *It is also on these* grounds that every order of rational or intellectual creature is said to be and not to be: it is in so far as it is known by the orders above it and by itself; but it is not in so far as it does not permit itself to be comprehended by the orders that are below it.[9]

Eriugena takes the monad and the numbers as an analogy for the process of creation. He rejects the traditional, simplistic paradigm of *creatio ex nihilo*. For "all things are eternal and made […]"; he wants to know "how those things which are without beginning and end are limited by beginning and end"[10]. God is the creator, but he is also present in all things. Eriugena appropriates the doctrine of the Pseudo-Dionysius: God "proceeds into all things and comes into being in all things […] and contains all things (*in omnia procedit et in omni creatura fit et continet omnia*)".[11] If God creates all that exists and at the same time is created in all that exits, then everything that exists is also both eternal and created. On the other hand, God himself, who is eternal, is also created, as well as the Creator. God is thus both immanent and transcendent.

Eriugena writes: "the things that exist have been made from the things that do not exist by the power of the Divine Goodness; […] For they were made from nothing because they were not before they came into being."[12] Being comes from God, but God is not a being. In itself, God is "ineffable, incomprehensible and inaccessible" to human intellect; in this sense, God is not, because he is beyond all things. He is nothing because of his transcendence. But in his "ineffable descent", he is found in all things. He is and was and shall be. He manifests himself in his theophanies.[13] "And He is before all things, and has constituted all things in Himself."[14] Therefore, God can be understood as being made in all things, and at the same time as being their creator.[15] Creation is eternal in God and created things are also eternal. This is because God precedes the universe, although he does not come before it in time. God precedes the universe because he is its cause.

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[9] "Hac item ratione omnis ordo rationalis et intellectualis creaturae esse dicitur et non esse. Est enim quantum a superioribus uel a se ipso cognoscitur, non est autem quantum ab inferioribus se comprehendi non sinit." *Ibid.* I 444C.
[10] *Periphyseon*, III 650C.
[11] *Ibid*. III 646A
[12] "ex non existentibus existentia uirtute bonitatis diuinae facta fuisse. [...] De nilo nanque facta sunt quia non erant prius quam fierent." *Periphyseon* III 634D.
[13] *Ibid.* III 680D, 681A, 681B.
[14] "et ipse est ante omnia et omnia in se constituit." *Ibid.* III 682C.
[15] *Ibid.* III 683A.

As things participate in their cause, they are also eternal.[16] In a sense, God as creator coincides with his creatures.

> He is the Beginning and Middle and End; […] He is the causal Beginning of all those things, and the essential Middle which fulfils (them), and the End in which they are consummated and which brings to rest every motion and imposes tranquillity […].[17]

God as cause is the "most primary reason of all things"; and he is both simple and multiple. Eriugena says that the Greeks call God Logos. He can also be designated as 'the Word', 'the Cause', or 'the Reason'. "In the beginning was the Word" (*In principio erat verbum*).[18] The Son of God is seen as the "principal Exemplar of all things visible and invisible"[19], because he is the cause of all things and all things subsist in him eternally.

God creates himself in his primordial causes.[20] So God is the creator of everything and things persist in him eternally. Things that exist are made from "things that do not exist" i.e. from nothing. Hence, God is nothing. But, at the same time, God is all things;[21] also creator and creature are one.[22] Creation *ex nihilo* happens in time; it is God's manifestation. It proceeds *ex nihilo* because it proceeds from non-being into being. However, non-being is not nothingness. God is the creator of all things and is also made in all things. God is thus *causa sui*. Creation does not exist apart from God because He creates himself in the act of creating.

> For both the creature, by subsisting, is in God; and God, by manifesting himself, in a marvellous and ineffable manner creates Himself in the creature, the invisible making Himself visible and the incomprehensible comprehensible and the hidden revealed […] and the infinite finite and the uncircumscribed circumscribed and the supratemporal temporal and the Creator of all things created in all things and the Maker of all things made

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[16] *Ibid.* III 639C.

[17] "principium est et medium et finis [...] omnium principium causale et medium implens essentiale et finis consummans omneque motum stabilitans quietumque faciens" *Ibid.* III 622 A.

[18] "ipse est omnium uisibilium et inuisibilium principale exemplar" *Ibid.* III 642B.
[19] *Ibid.*

[20] *Periphyseon* III 683A.

[21] *Ibid.* III 650D.

[22] *Ibid.* III 528B.

in all things, and eternal He begins to be, and immobile He moves into all
things and becomes in all things all things.[23]

Thus, God remains non-being for he is more than being. He is both
transcendent and immanent. He is the one and the many; he is the cause and
the effects; he is the uncreated, but he is also the creating act and his own
self-creation. Non-being is greater than being because it is ontologically and
epistemologically beyond the human mind. God is greater than being
because he is not graspable by human understanding. Thus non-being is not
absolute nothingness. It presupposes existence. This is patent in the third
mode of being and non-being that distinguishes actual and potential things.

Eriugena holds that God is the beginning, middle and end of everything;
everything begins in God and converges back to him. "For Beginning and
End are not proper names of the Divine Nature but of its relation to the
things which are created. For they begin from it and that is why it is called
Beginning; and since they end in it so that in it they cease, it is rightly called
by the name End."[24] God is thus the beginning of every thing created and
he is also inseparable from them. God is whole and part, division and union
of all creatures; but at the same time he is neither whole nor part, nor is he
division or union. Every thing proceeds from God and returns to him. God
is the source of division and the end of all resolution. "Every division […]
seems to be a kind of descent from some finite unity down into an infinite
number of individuals".[25] Likewise,

> the monad also is the beginning of numbers and the leader of their
> progression, and from it the *plurality* of all the numbers begins and in it is
> consummated the return and collection of the same. For all numbers subsist

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[23] "Nam et creatura in deo est subsistens et deus in creatura mirabili et ineffabili
modo creatur se ipsum manifestans, inuisibilis uisibilem se faciens et
incomprehensibilis comprehensibilem et occultus apertum [...] et infinitus finitum et
incircumscriptus circumscriptum et supertemporalis temporalem et omnia creans in
omnibus creatum et factor omnium factus in omnibus et aeternus cepit esse et
immobilis mouetur in omnia et fit in omnibus omnia". *Ibid.* III 678C-678D.
[24] *Periphyseon* II 528 A. "Principium enim et finis diuinae naturae própria nomina
non sunt sed habitudinis eius et finis diuinae naturae própria nomina non sunt sed
habitudinis eius ad ea quae condita sunt. Ab ipsa enim incipiunt atque ideo
principium dicitur, et quoniam in eam terminatur ut in ea desinant finis uocabulo
meruit appellari."
[25] *Ibid*. II 526B. "Omnis enim diuisio [...] quais deorsum descendens ab uno quodam
diffinito ad infinitos números uidetur."

as a whole and immutably in the monad, and in them it is the whole and the part, and of all the division it is the beginning.[26]

Plurality thus follows from the monad, i.e. multiplicity follows from unity. Unity is finite but division brings forth "an infinite number of individuals". Unity alternates with multiplicity, the finite with infinity. All numbers are whole in the monad, but as they descend they multiply. Every number emanates from the monad. But when they are in the monad they form an indivisible whole. The monad is thus also whole and indivisible, but, at the same time, it is multiple. It is not a collection of different numbers, neither is it composed of a plurality of numbers. Numbers coincide with and remain in the monad. They are eternal in the monad, and in it have no temporal beginning. But the question persists so as to know whether all numbers can multiply indefinitely causally and eternally in the Monad.

> For they are in it causally because it subsists as the beginning of all numbers, and in it all are one and simply indivisible, that is, in a universal and multiple mode, in the reason only, but not in act and operation; nor is the one an aggregate of many, but one deriving from its singularity both simple and multiple, so that both all numbers are in it all at once simple, as in their cause, and it itself is understood in them all multiplied by an ineffable distribution, as their substance.[27]

Numbers subsist eternally in the monad because their beginning is not temporal; moreover, the monad extends into infinity. And infinity can but proceed from infinity. However, how can an infinite progression proceed from a finite number? Eriugena gives the example of number two (the dyad) which is finite and from which all doubles derive and extend into infinity.[28]

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[26] *Ibid*. III 621D. " Nam et monas principium numerorum est primaque progressio et a bea omnium numerorum *pluritas* inchoat eorundemque reditus atque collectio in ea consummatur. Siquidem omnes numeri uniuersaliter et incommutabiliter in monade subsistunt et in omnibus eis totum et pars est et totius diuisionis primordium."

[27] *Ibid*. III 652B-652C. "Non aliter uera docit ratio. In ea enim causaliter sunt quia omnium numerorum subsistit principium et ibi omnes unum sunt indiuiduum simpliciter, hoc est uniuersaliter et multipliciter sola ratione, non autem actu et opere, neque unum ex multis cumulatum sed unum sua et simplici et multiplici singularitate preaditum ita ut et omnes numeri in ea sint simul et simpliciter secundum causam et ipsa in omnibus multipliciter ineffabili distributione intelligatur secundum substantiam."

[28] *Ibid*. III 652D.

Multiples always derive from finite numbers and proceed into infinity. Numbers are infinite in the Monad, but they are also one. Every progression of numbers proceeds from and ends in the Monad. In fact, unity does not have a beginning. Numbers proceed from their beginning, which, according to Eriugena, is the same as their end. The infinite beginning and the infinite end of numbers are the same, and therefore it is unity. All numbers subsist eternally and immutably in their beginning and end.

> Therefore all numbers subsist eternally in the Monad and while they flow forth from it they do not cease to be in it since they cannot abandon their natural state. For whether by multiplication or by division they proceed from it and return to it […].[29]

Infinity is thus unity, but the beginning requires the act of procession and the end entails completion. In unity numbers do not precede or follow one another. However, their natural order is a progression, which is already contained in their unity.[30] So unity is an inexhaustible source from which numbers flow forth. But numbers also subsist in the Monad as the cause of their flow. Therefore the unity and the numbers themselves are "inseparably one."[31] It is thus that numbers "are eternal in the Monad, but made in their multiplication."[32] Numbers are eternally in the Monad because they are also causally there, that is they are potentialities. When they multiply they become actual. The same numbers are causally and potentially in the Monad, but they become actual when they are made. That is the way they manifest themselves. God creates numbers in the intellect. And He also establishes them in the Monad. The unity of numbers in the Monad is not open to our understanding. Unity does not oppose multiplicity.

The Monad is the cause and the creator of all things. In it, numbers subsist eternally and from it numbers multiply in their descent. The descent of numbers is a creative procession that goes from the absence of form and images to the delineation of concrete images. Numbers proceed from the Monad into the mind, from mind into reason, from reason into memory and the senses, and lastly into figures.[33]

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[29] *Ibid.* III 653D. "Aeternaliter ergo in monade omnes numeri subsistunt et dum ab ea profluunt in ea esse non desinunt quoniam statum suum naturalem desere non possunt. Nam siue multiplicentur siue resoluantur ab ea ueniunt et in eam [...]".
[30] *Ibid.* III 654C.
[31] *Ibid.* III 655C.
[32] *Ibid.* III 656C.
[33] *Ibid.* III 658D-659C.

> Numbers that are eternally established in the Monad are made in two ways.
> For either they are made simply by the intellect alone in the mind and in the
> reason, where they appear purely through themselves without any imagery;
> or in the memory and corporeal sense, where they are embodied in certain
> images and made, as it were, out of and in a kind of matter.[34]

So numbers pass from pure potentiality into different grades of existence up to some kind of materialization. And this allows for certain degrees of existence; we might even say it permits numbers to have two natures: one pure and one material.

Multiplicity and unity are also at the basis of Whitehead's categoreal scheme. They are the ultimate principles in the constitution of being.

> 'Actual entities' – also termed 'actual occasions' – are the final real things
> of which the world is made up. […] God is an actual entity, and so is the
> most trivial puff of existence in far-off empty space. (PR, 18 [27-28])

Actual entities can also be referred to as creatures. (PR, 22 [33]) They constitute what Whitehead designates as reality. In Whitehead's categoreal system there are eight categories of existence; actual entities and eternal objects stand out as the most important.

Eternal objects are pure potentials, which can be realized through their ingression in the becoming of actual entities. They are found in God's primordial nature. (PR, 22-23 [32-34]) God "viewed as primordial […] is the unlimited conceptual realization of the absolute wealth of potentiality. In this aspect, he is not *before* all creation, but *with* all creation." (PR, 343 [521]) God as the provider of the subjective aim is also the permanent commencement of all creation. He manifests himself together with his creation. General potentiality, that is to be found in God, manifests in God's purpose towards his creatures, but it preserves their self-determination enabling them to constitute themselves as *causa sui*.

Eternal objects are existents, but have no actuality as pure potentials. They can only be said to be real after ingression. In a recently published manuscript, Whitehead writes: "Process is the realisation of the Existent, i.e. is an absorbing of the Existent into reality. This is creation."[35] Thus, existence does not coincide with actuality, and also with what can be largely

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[34] *Ibid*. III 659D "Dupliciter ergo factos numeros in monade aeternaliter substitutos asseris ni fallor. Aut enim in animo et ratione sola ac simplici intelligentia fiunt puri per se omnique imaginatione absoluti apparentes, aut in memoria sensuque corporeo quibusdam imaginationibus incrassati ac ueluti ex quadam materia facti."

[35] Bradley et al. (2003), 35.

designated as reality. Existence includes potentiality and can be easily identified with the third mode of non-being in Eriugena's system.

In Whitehead's system the category of the ultimate expresses the most general principle. It includes the ultimate notions of 'creativity', 'the many' and 'the one'. Creativity is the ultimate principle by which the many become one. It is 'the principle of novelty'. Every actual occasion is a novel entity that comes into being through its becoming. Actual occasions take part in the 'creative advance' because they are all novel entities. (PR, 21 [31-32]) Creativity underlies all reality but, in itself, it is not an entity. Each completed actual entity is a potentiality for the becoming of other future actual entities. Whitehead's metaphysics is a relational one. Completed actual entities objectify themselves for the becoming of other actual entities, so that they prehend each other, i.e. so that they appropriate and incorporate one another.

Actual entities become in accordance with their subjective aims, which are provided by God. But their process is self-constituting and self-determining. God does not determine which potentialities should be actualized; he only provides the background from which actual entities will select their forms of ingression. This is why Whitehead holds that actual entities are *causa sui*. He writes in the manner of Eriugena:

> All actual entities share with God this characteristic of self-causation. For this reason every actual entity also shares with God the characteristic of transcending all other actual entities, including God. The universe is thus a creative advance into novelty. (PR, 222 [339])

In the philosophy of organism, creativity is the category of the ultimate. "God is its primordial, non-temporal accident." (PR, 7 [11]) At first sight, one might think God is the outcome of creativity and, as such, he is preceded by it, if only in a logical way. In this sense, God is not the creator, but the first instance of creativity. Creativity and God seem to be separate realities proceeding one from the other. However, God is not the creator in the sense that

> the ultimate creativity is to be ascribed to God's volition. The true metaphysical position is that God is the aboriginal instance of this creativity, and is therefore the aboriginal condition which qualifies its action. It is the function of actuality to characterize the creativity, and God is the eternal primordial character. But, of course, there is no meaning to 'creativity' apart from its 'creatures,' and no meaning to 'God' apart from the 'creativity' and the 'temporal creatures,' and no meaning to the 'temporal creatures' apart from 'creativity' and 'God.' (PR, 225 [344])

Only God and the temporal creatures are actual entities. But God in his primordial character is out of temporality. It is important to note that, according to Whitehead, "God's 'primordial nature' is abstracted from his commerce with 'particulars,' […]. It is God in abstraction, alone with himself. As such it is a mere factor in God, deficient in actuality." (PR, 34 [50])

In its turn, creativity is no entity and can only manifest itself through its instantiations. God and the temporal creatures are both the condition of creativity and its instances. In his primordial nature, God is a condition of creativity for he is the provider of all potentiality; in his consequent nature, God is an instance of creativity for he is an actual entity, always in concrescence. For

> God, as well as being primordial, is also consequent. He is the beginning and the end. […] He is the presupposed actuality of conceptual operation, in unison of becoming with every other creative act. Thus by reason of the relativity of all things, there is a reaction of the world on God. He shares with every new creation its actual world; and the concrescent creature is objectified in God as a novel element in God's objectification of the actual world. (PR, 345 [523])

Whitehead draws some antitheses about the reciprocality between God and the world. He then harmonises them by reminding us of the categories of existence; diversity leads to unity and unity leads back to diversity in an endless dialectical process.

Thus,

"it is as true to say that God is one and the world many, as that the World is one and God many."

Also,

"it is as true to say that God is permanent and the World fluent, as that the World is permanent and God fluent." (PR, 348 [528])

The fourth and fifth antitheses should be read together:

"It is as true to say that the world is immanent in God, as that God is immanent in the World.

It is as true to say that God transcends the World, as that the World transcends God." (PR, 348 [528])

In his primordial nature, God transcends the world. But God's transcendence should not be considered in the traditional Christian way. God is not the detached creator, presiding over a distant world. In his primordial nature, God includes all potentiality and remains 'deficient in actuality'. As such he transcends the world. However, in his consequent nature God is immanent in the world for he emerges with every actual

occasion; one could say he creates himself incarnating in every creature that creates itself. In *Religion in the Making*, Whitehead quotes the Logia of Christ: "Cleave the wood, and I am there." (RM [74])

In its turn, the world is also immanent in God. Actual entities become and perish. As they perish, they become objectively immortal and are included in God's nature.

> Each actuality in the temporal world has its reception into God's nature. The corresponding element in God's nature is not temporal actuality, but is the transmutation of that temporal actuality into a living ever-present fact. (PR, 350 [351])

Finally, the last antithesis stems from the previous ones and states: "It is as true to say that God creates the World, as that the World creates God." (PR, 348 [528])

Creation is a never-ending process and the 'creative advance' is permanent novelty. Actual entities are the instantiations of creativity, and the world emerges through creativity by the ordering of potentiality in God. In return, the world offers God its multiplicity of actualities, so that a novel unifying synthesis can again happen in God.

In Whitehead's metaphysics, the question of the one and the many is a fundamental one and that is why creativity emerges as a novel ontological category. It manifests itself whenever there is an addition of a new entity that results from the alternation of multiplicity with unity. "The many become one and are increased by one." (PR, 21 [32])

But mathematical multiplicity differs from ontological multiplicity. Set theory accounts only for the discreteness of each element of a set,[36] because there is no unifying synthesis, no creative addition to the already existing reality. Nevertheless, in *Modes of Thought*, Whitehead considers numbers and arithmetic operations as processes (MT, 91-93).

In his examination of Zeno's paradoxes, Whitehead holds that an act of becoming is not extensive in itself because it is indivisible (PR, 69 [107]). He emphasises the difficulty that arises when the mathematical continuum is taken for the continuous process that brings an entity into existence. For Whitehead "there is a becoming of continuity, but no continuity of becoming." Thus, "there is a creation of continuity" (PR, 35 [53]).

According to Whitehead any one occasion arises from the conjunction of many antecedent occasions. Diversity generates the oneness of every actual occasion. This unified synthesis is also a novel entity. And the novel

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[36] "Mathematics" in ESP, 269-288.

entity is also one amongst the entities it synthesizes; in its synthesis the many come together in oneness.

> The ultimate metaphysical principle is the advance from disjunction to conjunction, creating a novel entity other than the entities given in disjunction. The novel entity is at once the togetherness of the 'many' which it finds, and also it is one among the disjunctive 'many' which it leaves; it is a novel entity, disjunctively among the many entities which it synthesizes. The many become one, and are increased by one. (PR, 21[32])

Actual entities are thus a process of passage from diversity into unity. This process is becoming. And becoming constitutes the being of actual entities. Actual entities are self-creating, and in so being they play diverse roles, but do not lose their identity. They grow into a coherent whole, as they constitute themselves. (PR, 25 [38]) Their identity is there from the very beginning and wholeness is given with multiplicity. The many turn into the one; but each completed actual entity is part of the new multiplicity it finds as its process of self-creation draws to an end.

On the other hand, entities can also be conceived from an external point of view; this emphasizes their discreteness and the relationships established between divided things. This is actually how we view of the world, as sheer external relationships, ignoring relationships within each actual occasion. The external view precludes the creative synthesis and the coming together of the many to give rise to the novel one. It also fails to acknowledge the entirety of actual occasions, which come into existence as 'drops of experience' i.e. as individualized units. These considerations relate to Whitehead's analysis of Zeno's paradoxes.

Whitehead envisages these paradoxes as having their roots in the ignorance of infinite convergent numerical series. He writes:

> consider the first half second of an act of becoming, the next quarter-second as another such act, the next eighth-second as yet another, and so on indefinitely. Zeno then illegitimately assumes this infinite series of acts of becoming, with a first act, and each act with an immediate successor, is inexhaustible in the process of becoming. Simple arithmetic assures us that the series just indicated will be exhausted in the period of one second. The way is open for the intervention of a new act of becoming which lies beyond the whole series. (PR, 69 [107])

In this last sentence, Whitehead clarifies the paradoxical character of Zeno's arguments. An infinite series is exhaustible within limits; but its infinitude is resolved into a finite number (or limit). A finite number issues from an infinite series if we add up its terms. In the same way novel,

complete acts of becoming arise from the many previous ones. Each act of becoming is whole and undivided: the very act of becoming is not extensive and cannot be divided into parts that would correspond to the divisibility of what has already become: "the creature is extensive, but […] its act of becoming is not extensive" (PR, 69 [107]). Whitehead advocates that Zeno's paradoxes can be overcome because an act of becoming is always the creation of an individualized entity.

> Zeno's difficulty is met by conceiving temporalisation as the realisation of a complete organism. This organism is an event holding in its essence its spatio-temporal relationships (both within itself, and beyond itself) throughout the spatio-temporal continuum. (SMW, 127)

If we consider each act of becoming from an Eleatic viewpoint, we will get nothing but a vicious infinity. Whitehead points out that Zeno presupposes a vicious infinite regress, because, for Zeno, "every part of time involves some smaller part of itself, and so on." (SMW, 126) This vicious regress is ultimately a void instant with no duration, and it is completely meaningless. Thus, if we consider becoming, "there can be no continuity of becoming. There is a becoming of continuity but no continuity of becoming." This is because actual entities become as individuals i.e. as organisms. Each act of becoming is whole and completes itself. And completion gives rise to other novel entities.

Entities are thus envisaged as processes in Whitehead's philosophy. They preclude analytical division and the fragmentation of the world. Each unity is whole and individualized; and it emerges as such into reality, thus excluding its division into parts. Numbers too can be seen as processes.

Eriugena's theory of numbers can help us understand Whitehead's notions of organism and multiplicity. In his philosophy, the paradoxical character of numbers, which are eternal and made, infinite and created, one and multiple can be resolved, if we allow for their different degrees of existence or even for their diverse natures.

In a rather similar way, in Whitehead's philosophy numbers are envisaged as processes. Mathematical notions intermix and fuse together and can thus be described as processes of becoming. Our symbolic language is naïve. Identity and equality, for example, may not mean the same thing.

"If we say that "twice three is six," we are saying that the issue of a process is an entity with the character six." (MT, 92)

There is no perfect identity between twice three and six. Six results from the multiplication of two by three and multiplication is a form of process. Therefore, numbers in Whitehead's philosophy can also have different

degrees of existence and nature as they are construed as different forms of process.

Multiplicity thus meets oneness, infinity meets finitude and the static character of numbers is overcome. In process, numbers are truly 'eternal and made'. Eternity and temporality can be reconciled in an everlasting, lively passage. Whitehead illustrates this conciliation of the eternal and the temporal with reference to Renaissance art:

> The four symbolic figures in the Medici chapel in Florence – Michelangelo's masterpieces of statuary, Day and Night, Evening and Dawn – exhibit the everlasting elements in the passage of fact. The figures stay there, reclining in their recurring sequence, forever showing the essences in the nature of things. The perfect realization is not merely the exemplification of what in abstraction is timeless. It does more: it implants timelessness on what in its essence is passing. The perfect moment is fadeless in the lapse of time. Time has not lost its character of 'perpetual perishing'; it becomes the 'moving image of eternity.' (PR, 338 [513-514])

In both Eriugena and Whitehead's philosophies paradox gives rise to the harmonisation of opposites, bringing together the many and the one, infinity and unity, eternity and temporality.

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THE WORLD 'HANGS TOGETHER': NATURE, NON-BEING, AND INFINITY IN JOHN SCOTUS ERIUGENA AND ALFRED NORTH WHITEHEAD

ALEX HAITOS

For Alfred North Whitehead, one of the 20th century's premier metaphysical thinkers, our universe is best described as open and pluralistic. A diversity of entities make up the cosmos, each one individual, but each a growing together of the world into a novel determination, a fresh experience that then contributes to the further growth of the world. As William James wrote, 'experience grows by its edges.'[1] Thus there is no closure, no ultimate finality or totality to the world as Whitehead understands it. This is reflected in his metaphysical system developed in *Process and Reality*, which does not attempt to provide complete certitude about any metaphysical doctrine. What Whitehead wants to provide is a frame of thinking that illuminates as wide a swath of human experience as possible, revealing the interconnections and relations that form the background of our existences. It is relatedness, connectedness, and openness that I write about here.

It is through relations that, in William James' phrase, a 'pluralistic universe' hangs together – and by this I mean that there are no utter separations: all is related to all. For Whitehead, each actual entity, each thing in the cosmos, is a process of appropriating the world – its world – and forming it into a new individual, a new value, a new fact. All things run through an actual entity and, reciprocally, every actual entity runs through all things. In this way the universe remains in solidarity even through it is a growing plurality without limits. A tenuous balance is struck between singularities and overarching unity, between the one and the many.

Whitehead's system is important and original, and it is difficult, but it did not come from nowhere. In *Process and Reality* Whitehead writes that "the train of thought in these lectures is Platonic" (PR, 39), thus placing his

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[1] James (1977), 212.

philosophy squarely within the European tradition. Yet Whitehead's own discussions of the history of philosophy in *Process and Reality* are dominated by figures from the Early Modern period, such as Descartes, Locke, Hume, and Kant. He does not discuss the relevance of the long Platonic heritage of thought to his own philosophy. Thinking about Whitehead as a perhaps radical move within the Platonic tradition may help us understand the style of his thought and its importance for the modern age.

I want to suggest that there is a special symmetry and similitude between Whitehead's thought and the thought of the 9th century 'liberal arts master' John Scotus Eriugena, especially as concerns the way in which the universe, or nature, 'hangs together.' Both offer systems for contemplating the world that do not attempt to limit our thinking or hem in potential experiences of our universe, while at the same time their systems retain the binding character of unity. Whitehead and Eriugena point us toward a way of understanding the one and the many, unity and difference, that prefaces an endlessly fluid style of thinking in which our 'universe' – if this is really the appropriate term – cannot be circumscribed or comprehended under any one mode of thought. For Eriugena and Whitehead, we always take a certain vantage point with respect to nature – indeed there is nothing but vantage points.

With the universal ubiquity of vantage points comes a crumbling of hierarchical boundaries. This emphasis on the fluidity of hierarchy is an important commonality between Whitehead and Eriugena. I shall discuss this theme first and then turn to an overview of Eriugena's thought and how it shows this fluidity even though he presents his system within what might appear to be a traditionally Neoplatonic hierarchy. The lack of hierarchy in Whitehead is fairly easy to spot: everything in the world, including God, is analyzed in terms of "actual entities," the general name Whitehead gives to the concrete, ultimately real things of the universe. There are other ways of existing, but these ways must all be involved with the becoming of an actual entity in some way. (This is Whitehead's 'ontological principle'.) Eriugena's thought, appropriate to his age, more easily appears as a hierarchical system. But his treatments of non-being and of the infinitude of nature show his 'divisions' and 'levels' to be more like phases and aspects of infinite reality than a clear 'order of being.' Eriugena's world is not the world of Dante; he struggles with the Neoplatonic heritage he inherits and to which he is indebted. His understanding of non-being and his stress on infinity is the solution in which he dissolves the broadly Neoplatonic emanation scheme he outlines. The scheme is neither *invalid* nor *wrong*; it is incomplete and appropriate only within certain bounds.

The insights of Eriugena can be used to shed light on Whitehead's system. Though Whitehead's writing is not in the philosophical mainstream, the style of thought his system represents has impinged on the fringes of Western philosophy for quite some time. With Whitehead and with Eriugena long before him, we have the transformation of Platonic hierarchies into a more level, interwoven, and fluid plane. With the intention of looking into the provenance of Whitehead's ideas, let us look at John Scotus Eriugena, who was closer intellectually and temporally to the heart of the Platonic tradition than Whitehead, and outline the central aspects of his remarkable account of nature; nature, of course, being a term for all of reality – not only all that is, but also all that is not.

This definition of nature is how Eriugena opens his *Periphyseon*, translated as *On the Division of Nature*. He wrote this five book dialogue after he came into contact with and translated the works of the Pseudo-Dionysius (then thought to be St. Dionysius the Areopagite, a follower of St. Paul) as well as works by Gregory of Nyssa and Maximus Confessor. Eriugena's knowledge of Greek, exceedingly rare in the Latin West, enabled him to integrate the Greek Christian tradition with the Latin tradition stemming from Augustine. But Eriugena was a singular and powerful thinker and was not to be limited by the tradition from which he took nourishment. He was bold and original, weaving Neoplatonic themes into a systematic cosmology in which the infinite and non-being entangle, creating distinctions and divisions that are best understood as phases in a process, a dialectic of articulation and return. Since Plato's *Parmenides* and *Sophist*, few thinkers have grappled so deeply with the incorporation of "non-being" into the life of the cosmos.

In the 13th century the *Periphyseon* was condemned by the Church.[2] The primary charge against the *Periphyseon* was that it supported, in various ways, pantheism, or the collapsing of the distinction between God and creation. This issue is complex since Eriugena insisted on both divine transcendence and immanence. This is not confusion on his part, for his view of nature is that it is embroiled in an ongoing self-manifestation or outpouring which then returns to its source, the ineffable Godhead. For the present, Eriugena's theological orthodoxy and potential pantheism do not concern me here as much as his dynamic and holistic view of nature. It is this view that is an important part of the intellectual provenance, even if unacknowledged, of Whitehead's philosophy of organism. The

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[2] This was largely because of its association with Amalric of Bène and David of Dinart, two theologians condemned at the same time as the *Periphyseon*.

interpenetration, the overlap, the comingling of Eriugena's ontological "levels" prefigures the rhythm of process Whitehead describes in his work.

As I said earlier, the *Periphyseon* begins with a definition of nature (in Greek, *physis*; Latin, *natura*): nature is a general term for all things, both those that are and those that are not.[3] The things that *are* or have being are said to be those things that are capable of being perceived, intellectually or sensibly, by the soul. The things that *are not* or do not have being are said to be those things that transcend the soul's reach. This is the primary, but not the only, way to understand being and non-being.[4] Eriugena discusses four other ways things can be or not-be, though he admits that further reasoning can discover additional modes of being and non-being.[5] The four additional modes Eriugena discusses are as follows:[6] 1) from any particular level of being, to affirm or deny anything of that level is to do the opposite to other levels: for example, if we affirm something about human nature we are denying that things apply (in the same way) to angelic nature: things that *are* for human nature *are not* for angelic nature; 2) things known in space and time – effects – are said to-be, while the seeds or causes of these effects, hidden in nature, are said not-to-be; another way of construing this mode is to use the ideas of *actuality* and *potentiality*: actuality is said to-be and the hidden potentials are said not-to-be; 3) only things graspable by the intellect are said to-be, while all that is subject to generation, corruption, space, time, and so on, is said not-to-be (this is a roughly Platonic conception of being); 4) a human being sanctified by grace and free of sin is said to-be, while a sinful person is said not-to-be.

What is most important about these five modes of being and non-being is that they do not all line up. What *is* in one way may *not-be* in another. For example, if something *is* as a sensible effect it *is not* by the strict standard of the intellect, and a cause that *is* by the intellect *is not* from the view of the sensible effect. Both cause and effect *are* from the perspective of the human soul as a whole, and *neither are* from a higher, divine vantage point. There is no way to say that something simply *is* or *is not*. The tension between being and non-being – that all things both *are* in some ways and *are not* in other ways – is insuperable and gives dynamic, dialectical energy

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[3] Johannes Scotus Eriugena, *Periphyseon (De Divisione Naturae)*, ed. I.P. Sheldon-Williams [v.I-III] and Edouard A. Jeauneau [v.IV], 4 vols. (Dublin: Dublin Institute for Advanced Studies, 1968 [v.I], 1972 [v.II], 1981 [v.III], 1995 [v.IV]); I.441a.
[4] *Ibid.*, I.443c
[5] *Ibid.*, I.446a: "Although keener reasoning can discover some modes besides these, yet I think at the present (stage) enough has been said about these things, unless you disagree."
[6] *Ibid.*, I.444a-446a

to Eriugena's system. Affirmations and negations play off of one another and boundaries are continually crossed. We cannot simply say that God is beyond being, because he *is* being, the essence of all things. But we cannot rest here either, for God cannot be limited to the world around us. He is 'superessential,' a word unfortunately doomed to fall short of the meaning, or lack thereof, that it intends to express. In short, there are no final statements and nothing is just so. In his historical context, Eriugena is developing the apophatic and cataphatic theologies as found in the Pseudo-Dionysius, but Eriugena does not limit himself to statements about God. Instead, he blankets the entire world with the movement of knowing and unknowing.

Turning back to Nature, all that is and is not, Eriugena says that there are four divisions of nature, and these divisions pivot around the notion of creation. Nature that creates but is uncreated is the first division, the "cause of all that which is and which is not," or God.[7] Nature that is created and creates is the Word (*Logos*), the primordial causes, the Ideas in the Mind of God. Nature that is created and does not create is the temporal effects of the eternal causes; this division comprises 'our world' – the world of plants, animals, and angels. Nature that neither creates nor is created is nothing, non-being. This final division is also God, but it is God as end, God as the desired terminus of that which is created. It is here, in this final division, that creation will return to its source and effect will reunite with cause.

Immediately, though, this division starts to break down. As we just saw, God is identified with both the first and last divisions. And the eternal Word, the Mind of God, is created. So God appears to be the ultimate creator, yet does not create in all his aspects, and he is uncreated, yet the creation of the world is also a creation of God. This latter idea, that God is created, is the idea that creation is a series of theophanies, or self-expressions of divinity.[8] God, the unknown and unknowable essence of things, is, in part and under a certain aspect, expressed in the individual essences of all created things. The divisions of nature are articulations of something – nature, *physis*, reality – that cannot be articulated as a whole. Each division is a way of getting at the same thing, namely, the universe and how it hangs together. Eriugena is tackling the problem of the one and the many; there is a unity of nature, but everywhere and everyway we look we fail to comprehend, circumscribe, or define that unity. There is no all-at-once for intellect or understanding. Even God the Creator cannot know *what* he is. The act of divine self-knowledge is the eternal creation of the primordial causes; God

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[7] Eriugena, *Periphyseon*, I.442b (alternate translation; i.e., not Sheldon-Williams)
[8] *Ibid.*, see, for e.g., I.449a-451d, III.633b-c

cannot know himself as One, but only as the Word which utters the infinitely many Ideas. We still know *that* there must be a unity, a unity we cannot see in the light but that resides in the darkness, and it is this unity to which we desire to return. It is God as end, God as nothingness.

The driving force behind Eriugena's division of nature and the inherently tenuous character of this division is his remarkable and consistent emphasis on the utter *infinity* of nature. It is simply impossible to circumscribe nature in any way; all approaches must be partial. The true nature or essence of any and every thing remains incomprehensible to us, just as we cannot grasp the *what* of God. Even God cannot *know* himself in his infinitude as a unity. In this way God *is not*. But God is 'nothing through excellence' and is the source and cause of being.[9] God is the nothingness of *creatio ex nihilo*, which can thus be described as *creatio ex deo*, or, my preference, as *creatio ex omnibus*.[10] The incomprehensible and unutterable infinitude of God is articulated in the infinite manifestations of primordial causes, and this latter infinitude also articulates infinitely into the spatial and temporal world. These articulations in a way *are* the overwhelming infinitude of God. The essence of God in some sense *just is* the endless play of the infinite possibilities expressed by the Primordial Causes and their infinite expressions in the temporal affairs of our world. But the endless theophanies cannot exhaust the infinite or express it in its inner unity. There is no totality here, nothing to sum up and circumscribe and to which we can then say, 'ah, God and nature are defined thusly.'

There is thereby no closure to Nature, no ultimate finality. I do not think that Eriugena's conception of the return to God represents finality, though I should say that 'the return' is a difficult doctrine to interpret.[11] The perfections to which things are to return are timeless, and so in a sense the return already *is*, and the process of returning does not obliterate individual substances. It rather seems that the return is the countervailing movement to creation,

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[9] *Cf. ibid.*, I.443c-d; the contrast to 'nothing through excellence' is 'nothing through privation.' Eriugena shows some uncertainty about what to do with absolute privation, or absolute non-being, and wonders whether absences and privations are not really "altogether nothing" since they are only absences/privations in virtue of presupposed existence or being. In short, Eriugena's 'non-being' is not *absolute* since it mingles and mixes with 'being' understood as a sort of revelation or manifestation. Thus in my judgment, Eriugena does not cross the Parmenidean dictum that 'nothing comes from nothing' interpreted in a strict sense.

[10] *Ibid.*, see III.634a-690b for Eriugena's detailed treatment of *creatio ex nihilo*. See Book III.666c-688a for the core of Eriugena's answer that God is the nothingness of creation.

[11] The return to God is detailed most fully in Book V of the *Periphyseon*.

creation being the timeless or eternal act of the passage from non-being into being. Conversely, in the return being moves into non-being. Creation and return is thus the cosmic-level interplay of being and non-being. The return is not final because it is from out of the very nothingness of the return that creation and infinite articulation arises. Since Eriugena recognizes both creation and the substance of the return as eternal, Eriugena's return could be read as a sort of Neoplatonic elevation of the intellect or mind, instead of as the final end of all creation. This conception of the return has similarities to Whitehead's idea that all actual entities, upon perishing, are 'objectified' in the consequent nature of God and thereby condition the subsequent creativity of nature. For Whitehead, the return is as continual and omnipresent as creation. But given the Christian *Weltanschauung* Eriugena works within, perhaps he did mean for the return to provide closure. If so, the return to God marks both an intriguing similarity and an important divergence between Whitehead and Eriugena.

From the sketch of Eriugena's system given thus far, we can say that God as creator is beyond being, understood as revelation or manifestations of the hidden. But God is also not other than his making; insofar as God *is*, he is his making.[12] This is the idea of God as eternal activity, akin to Whitehead's notion of Creativity, the principle of novelty and a core element of his Category of the Ultimate.[13] With this convergence of creator and creating in mind, Eriugena, when discussing the etymology of God's name (*Θεός*), writes "But when *Θεός* is derived from the verb *Θέω* it is correctly interpreted 'He Who runs,' for He runs *throughout all things* and never stays but by His running fills out all things, as it is written: 'His Word runneth swiftly.'"[14]

And as God runs through all things, so does human nature. Human nature is an *image* of the divine nature; we are identical to our exemplar, meaning that, as far as theophanies go, God has manifested himself most fully in human nature.[15] This is something that can be said of no other

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[12] "Nutritor: Therefore it is not one thing for God to be and another to make, but for Him being is the same as making? Alumnus: I dare not resist this conclusion" (Eriugena, *Periphyseon*, I.518a). See also *Periphyseon*, I.453d: "For in [the Divine] Nature being is not different from willing, but willing and being are one and the same in the establishment of all things that are to be made."

[13] See Whitehead, *Process and Reality*, p. 21

[14] Eriugena, *Periphyseon,* I.452c

[15] *Cf. ibid.*, IV.778a: "For how could she [the soul] be an image if in some respect she differed from that of which she is the image? – except of course in being subject – about which we spoke in the earlier books when we were discussing the prototype or principal Exemplar and its image."

creature, not even of angels. Human nature interfaces with all aspects of creation, the intellectual and spiritual and the sensible and material. This means that "the human replica of the Divine essence is not bound by any fixed limit any more than the Divine essence in Whose image it is made."[16] As the divine nature is infinite and beyond circumscription, so too human nature is impenetrable by the intellect. We are 'rational animals', but this is only an 'accident' of our nature, or only applies to us metaphorically and incompletely. Unlike Descartes, who many years later would say that in knowing *that* we are we know *what* we are, Eriugena says that we do indeed know *that* we are, but *what* we are is unknown. We must turn to the whole of nature, the totality of all that is and is not, to see what we can learn about ourselves.

If we make such a turn and try to learn about ourselves, we are soon confronted with the great interweaving of nature. Apart from God as the ultimate creator, "all other things which are predicated of God may be predicated of His image also."[17] That is, human nature reaches out and touches, envelops, all things; human beings are the mediation and 'workshop' of the cosmos; there is a universal relatedness that runs through human nature. Quoting Maximus Confessor, Eriugena writes: "For there is no creature, from the highest to the lowest, which is not found in man, and that is why he is rightly called 'agent (of continuity)' [*officina omnium*] of all things."[18] This way of thinking about human nature – as a unity and expression of the created universe – is applied by Whitehead to all actual entities. Every actual entity is a concrescence of all things, including those potentials that 'are not,' into a unity and perspective on the universe. The relatedness that Whitehead sees pervading the universe is present in Eriugena's thought, too – expressed in that nature we are most familiar with, human nature. For in human nature all other creatures, intellectual and sensible, "are joined to one another, and from being many become one." [19] This description may easily have been written by Whitehead (truthfully, I was shocked by its similarity to a phrase found in Whitehead's discussion of his Category of the Ultimate: "The many become one, and are increased by one" (PR 21)).

This togetherness of nature includes the divine as well. Recall that "all things are not only eternal in the Word of God but also *are* [the Word]

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[16] *Ibid.*, IV.772a

[17] *Ibid.*, IV.778a

[18] *Ibid.*, II.530d; Eriugena is here quoting the writings of Maximus Confessor.

[19] *Ibid.*, II.530d; this, too, is a quote from Eriugena's translation of Maximus Confessor.

Itself."[20] Through the kinship of human nature and divine nature, reified in the figure of Christ, the divisions of nature are seen to be partial, inadequate contemplations of a unity, a universe beyond total comprehension. "So the universe, comprising God and creature, which was first divided as it were into four forms, is reduced again to an indivisible One, being Principle as well as Cause and End."[21] Eriugena's divisions of nature, though they may seem like a processual hierarchy in the Neoplatonic tradition, are better understood as aspects, perspectives, contemplations, of a unity that transcends every creature even as all things embody that unity. This unity can be thought of, contemplated, in many ways, not only in the divisions that Eriugena provides for us.[22] There is an infinite depth to creation that provides endless material for thought, "For God dwells nowhere but in the nature of men and angels…."[23] The infinitude of nature writ large permeates the temporal creatures, which is why we can only know *that* we are and not *what* we are.

Eriugena certainly draws his intellectual nourishment from the Neoplatonists, but he represents a significant development of that tradition in that his hierarchical divisions do not cut to the heart of ontology. If God is in all things and God is the substance of all things, then of course all things are in all things. This move lays the groundwork for a metaphysics of relatedness. Whitehead, too, can be thought of as in this "alternate" Neoplatonic tradition, one that focuses on relatedness and the dynamic dialectics created by the mixture of being and non-being in all things. The binding relatedness in Whitehead, termed prehension, can be 'positive' or 'negative'; that is, as any individual thing forms its world all things run through it, but some are admitted as having being, some non-being. The intermixture of being and non-being brings with it a universal principle of relativity under which being and non-being are not absolute determinations. Everything is resolved to a vantage point.

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[20] Eriugena, *Periphyseon*, III.641a

[21] *Ibid.*, II.528b

[22] E.g. see *Ibid.*, III.626a-b: "the greatest theologians and their successors can, without reasonable objection, both make a start of their contemplation of the primordial causes from any one of them at all and set the term of their contemplation in any one of them as each may wish so that as many as there are of primordial causes…so many are the ways of ordering and numbering them that offer themselves of their own accord…"

[23] *Ibid.*, V.982c; Sheldon-Williams translation, quoted in Dermot Moran, *The Philosophy of John Scottus Eriugena: A Study of Idealism in the Middle Ages* (Cambridge: Cambridge University Press, 1989); p. 184.

The metaphysics of hierarchy and that of universal relatedness and relativity grow from the same soil. My hope is that this paper has indicated a strand of Neoplatonic thought perhaps underappreciated. My sense is that Eriugena's ideas about non-being and about infinitude are crucial in the shift from hierarchical levels to layered and fluid phases. In this light, Whitehead appears not simply as a modern reader of Plato, but as a rooted efflorescence of Neoplatonic philosophy as well.

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GOD AND CREATION IN A.N. WHITEHEAD AND DIONYSIUS THE AREOPAGITE

HELMUT MAAßEN

1. Actual Entity: ontological status and its genesis

In his book, *Analysis of Matter* (1927), Bertrand Russell states that it was Alfred North Whitehead who taught us to use the concept of event and not matter anymore.[1] In Process and Reality, Whitehead calls this the ONTOLOGICAL PRINCIPLE. What he termed event in his early writings, as in *Concept of Nature* (*1920*), he later calls actual entity or actual occasion. (PR 29) These actual entities are analysable in an indefinite number of ways. "The analysis of an actual entity into prehensions is in that mode of analysis which exhibits the most concrete elements in the nature of actual entities." (PR 30)

Prehensions are the processes by which actual entities are related to each other. These prehensions are real, individual, and particular. Any particular fact of togetherness of actual entities is called a nexus. Each actual entity is in the process of becoming. It starts with its mental pole and ends with its physical pole. The process of becoming is called concrescence by Whitehead. The forms these processes of concrescence adopt are provided by eternal objects. They are provided by other actual entities and by the actual entity, God. In this way, each actual entity is to some extent linked to the whole universe, past, present and future. This is very similar to Leibniz's notion in his monadology. The eternal objects, the forms, similar to Platonic ideas, are the potentials for each process of becoming.

After this abbreviated description of the process of becoming, I think it could be easier to understand what Whitehead calls the CATEGORY OF THE ULTIMATE. The CATEGORY OF THE ULTIMATE (PR 21 et al.) shows what underlies all these processes of becoming. Creativity, the many, the one, are the notions of this category, underlying all processes of

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[1] Russell (1927), 6, 9, 243, 244 et al.

becoming. Creativity is the principal of novelty. Each process is never just a repetition of what has been or what will be, but more or less something new. The notions 'one' and 'many' explain how the many actual entities become one and how the reality of actual entities is increased by one. Whitehead remarks that the CATEGORY OF THE ULTIMATE replaces Aristotle's category of primary substance. Thus the production of novel togetherness is the ultimate notion embodied in the term 'concrescence'.

What is the ontological status of an actual entity?

In a discussion round, after one of his lectures, Whitehead sarcastically indicated the ontological status or size of an actual entity in spreading his thumb and forefinger and asking: What do you think, this much, or a little smaller? James Bradley has made it clear that actual entities are concepts.

> Whitehead's generic notion of actual entities must be taken as that and nothing else, that is, as a metaphysical description of the nature of real things, and not as involving any claim that actual entities are real things or the real constituents of things. In Whitehead's philosophy, real things must be described as actual entities, but this does not mean that things are really actual entities or that actual entities are real. The point of Whitehead's cosmology – as of any modern cosmology – is that its generic concept [the concept of an actual entity] is the true descriptive model of the world, and is in that sense actual or real; Whitehead is not maintaining that the world is full of descriptive models. The view of actual entities as real existence [whether microscopic, macroscopic, or 'hypothetical'], rather than as descriptions of the real, has vitiated the understanding of Whitehead from the outset.[2]

According to Bradley,

> Whitehead's concern with finite self-actualization aligns him with theorists such as Bergson, Nietzsche, and the later Heidegger in rejecting any notion of the real as complete or completely realized-whether the complete reality is understood pluralistically as a matter of truths (Santayana, Frege), or facts (Ramsay, Mellor), or monistically as the one Real (Spinoza, Hegel, F.H. Bradley).[3]

Still, he makes out differences as well. The event is not defined as spontaneous self-organization, "but seriously or genetically – as seriously security occasions of self-actualization".[4]

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[2] Bradley (1985), 264.
[3] Bradley (1994), 157.
[4] *Ibid*., 158.

  In one of his brilliant papers, Bradley claims, that the most adequate description of Whitehead's metaphysics could be called transcendentalism and speculative realism. Unlike in Nietzsche and Bergson one finds in Whitehead, the later Heidegger, and Deleuze, a concept in which "with their respective series of the finite, self-actualizing event, active existence is defined as a dynamic act without reference to any grounding principle of any kind".[5]

James Bradley puts Whitehead in the context of the long and varied history of transcendental analysis, especially Thomas Aquinas and Immanuel Kant.

> In the Thomist tradition, there are four basic transcendentals: the concept of 'being' (*ens*), 'thing' (*res*), 'unity' (*unum*), and 'distinction' or 'difference' (*aliquid*). They are called transcendentals because they transcend every genus. They are the transcendental predicates of being because they can be predicated of everything that is: i.e., everything that is, in some sense 'is', is something, is a unity, and is distinct from another. You will notice that these predicates imply each other, or are convertible with each other.[6]

Concerning the status of being, the Thomist tradition claims, that it is a virtual distinction, not a distinction of the thing itself. A virtual distinction is one in the mind but, it still allows us to describe the object adequately. The object, by the way, would be called subject by St Thomas.

> The *esse* or act of being is that which makes the transcendental predicates possible. *Esse* is, so to speak, an antecedent condition, not a consequent feature of things. In the Thomist analysis, this means that finite *esse* is a matter of some limited, participated share in the infinite *esse* or pure act, which is God. It is finite or derived *esse,* which the concept of *ens* signifies.[7]

2. The One and the Many

A feeling cannot be abstracted from the actual entity entertaining it. This actual entity is termed the 'subject' of the feeling. It is in virtue of its subject that the feeling is one thing. If we abstract the subject from the feeling we are left with many things. Thus a feeling is [339] a particular in the same sense in which each actual entity is a particular. It is one aspect of

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[5] *Ibid*., 156.
[6] *Ibid.,* 159.
[7] See Aquinas, *In librum De causis expositio*, ed. C. Pera, Marietti, 1955 lect. 6, no. 175.

its own subject. The term 'subject' has been retained because in this sense it is familiar in philosophy. But it is misleading. The term 'superject' would be better. The subject-superject is the purpose of the process originating the feelings. The feelings are inseparable from the end at which they aim; and this end is the feeler. The feelings aim at the feeler, as their final cause. The feelings are what they are in order that their subject may be what it is. Then transcendentally, since the subject is what it is in virtue of its feelings, it is only by means of its feelings that the subject objectively conditions the creativity transcendent beyond itself. In our own relatively high grade of human existence, this doctrine of feelings and their subject is best illustrated by our notion of moral responsibility. The subject is responsible for being what it is in virtue of its feelings. It is also derivatively responsible for the consequences of its existence because they flow from its feelings.

If the subject-predicate form of statement be taken to be metaphysically ultimate, it is then impossible to express this doctrine of feelings and their superject. It is better to say that the feelings *aim at* their subject, than to say that they *are aimed at* their subject. For the latter mode of expression removes the subject from the scope of the feeling and assigns it to an external agency. Thus the feeling would be wrongly abstracted from its own final cause. This final cause is an inherent element in the feeling, constituting the unity of that feeling. An actual entity feels as it does feel in order to be the actual entity which it is. In this way an actual entity satisfies Spinoza's notion of substance: it is *causa sui.* The creativity is not an external agency with its own ulterior purposes. (PR 222/223)[8]

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[8] See eg. Tobias Müller, *Gott Welt Kreativität*: "Kreativität kann somit als die metaphysische Aktivität bezeichnet werden, mit der der Zusammenschluss der vorhandenen Vielheit der Entitäten zu einer neuen Einheit beschrieben werden kann. Diese Aktivität ist selbst keine Aktualitätsentität, die als externer Faktor auf die neu entstehende Entität einwirkt. Vielmehr ist sie die Kraft, die jeder Aktualitätsentität innewohnt, durch die Konkreszens erst stattfinden kann. In sofern kann sie als Grund dafür angesehen werden, dass es überhaupt ein Prozess gibt, dass überhaupt immer neue Entitäten entstehen. (PRd58.68) Es wurde oben bereits gezeigt, dass die Kreativität als Aktivität verstanden wird, die als Grund für die Faktizität des kreativen Fortschreitens des Universums fungiert. Dies beinhaltete, dass in der Kreativität als Grundverfasstheit jeder aktualen Entität deren Entscheidungsfreiheit als Spontanität gegeben ist. Somit hieße das auf Gott angewandt, nichts anderes, als dass auch Gott sich wie die zeitlichen Entitäten als causa sui frei entscheidet und sich in einem aktiven Prozess befindet.
Gott kann so als die, zu der allgemeinen Aktivität der Kreativität äquiprimordiale schöpferische Wirklichkeit bezeichnet werden, da sich in seiner primordialen Wertung der ewigen Gegenstände die Kreativität primordial (weil allen zeitlichen Entitäten vorgängig) manifestiert." p. 159

It should be noticed, that the category of the ultimate is explicitly not taken as an external agent. Although these categories can be found in every concrescence, and in that sense they are transcendent or universal, they are always bound and determined by the superject itself and are not in any way acting on their own.[9]

That the many become one and are increased by one is a general description of the serial process of becoming, i.e. self-actualization.

> "'Creativity' is the principle of *novelty*. An actual occasion is a novel entity diverse from any entity in the 'many' which it unifies. Thus 'creativity' introduces novelty into the content of the many, which are the [32] universe disjunctively. The 'creative advance' is the application of this ultimate principle of creativity to each novel situation which it originates. 'Together' is a generic term covering the various special ways in which various sorts of entities are 'together' in any one actual occasion." (PR 21)

Creativity is instantiated by the actual entity and is not an agency by itself nor does it function through another – outside agency. The only operating agency is the subject-superject.

Each of these processes of concrescence has an emotional tone which of course is clearly marked by Whitehead in using the term feeling for prehensions. Or, as Robert C. Neville has described this process: "Experience is distinguished by virtue of involving a synthesis of otherwise merely causal components…"[10]

According to Steve Odin, Neville describes the process of creative synthesis in the following way: His 'process theory of imaginative experiential synthesis, following Whitehead's complete reversal of the Kantian doctrine of synthesis [objectivity – into – subjectivity instead of Kant's subjectivity – into – objectivity], argues that each act of imaginative synthesis constitutes experience in the form of an objective world immediately present to a subject'.[11]

Every synthesis carries over a value, not a form. This leads to a refutation of e.g. modern sense-data theory.

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[9] 'Creativity', 'many', 'one' are the ultimate notions involved in the meaning of the synonymous terms 'thing', 'being', 'entity'. These three notions complete the Category of the Ultimate and are presupposed in all the more special categories. (PR 21)

[10] Neville (1981), 17.

[11] Odin (1982), 141.

3. Mutual immanence in Whitehead

A major topic in *Adventures of Ideas* is indeed immanence, immanence of past and present actual occasion, past and present developments, e.g. cosmologies, in fact I would dare to rephrase *Adventures of Ideas* into *Adventure of Immanence*. It shows attempts of mutual immanence in the development of the idea of the laws of nature, in cosmologies, in social developments etc.

The passage in *Adventures of Ideas* reads as follows:

> The point is the recourse to a doctrine of mutual immanence. Again, the theologians had also to construct a doctrine of the person of Christ. And again they rejected the doctrine of an association of the human individual with a divine individual, involving responsive imitations in the human person. They decided for the direct immanence of God in the one person of Christ. They also decided for some sort of direct immanence of God in the World generally. This was their doctrine of the third person of the Trinity. I am not making any judgment about the details of their theology, for example, about the Trinitarian doctrine. My point is that in the place of Plato's solution of secondary images and imitations, they demanded a direct doctrine of immanence. It is in this respect that they made a metaphysical discovery. They pointed out the way in which Platonic metaphysics should develop, if it was to give a rational account of the role of the persuasive agency of God. (AI 168)

4. Trinity in Dionysius the Areopagite[12]

The earliest mention of the Corpus Dionysiacum was in 532 at the Council of Constantinople, where "the Blessed Dionysius the Areopagite" was cited in support of the non Chalcedonian position.[13] Dionysius portrays himself as the figure of Dionysius the Areopagite, the Athenian convert of St. Paul, mentioned in Acts 17:34. Interpretations of Dionysius have since either defended or denounced him. John of Scythopolis, Dionysius's first commentator, goes to great lengths to demonstrate that Dionysius is

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[12] For an overview of Dionysius' life, work and impact see Suchla (2008).

[13] Newheiser (2011), 24; Bishop Hypatius of Ephesus, quoted in Jaroslav Pelikan, "The Odyssey of Dionysian Spirituality", *PseudoDionysius: The Complete Works*, Trans. Colm Luibheid and Paul Rorem, New York: Paulist Press, 1987, p. 14. 7 / Bishop Hypatius of Ephesus, quoted in Pelikan (1987), 14.7

untainted by "the bastard teachings of the Greek philosophers"[14], a suspicion that culminated in Luther's claim that "this Dionysius, whoever he may have been,...is downright dangerous, for he is more of a Platonist than a Christian."[15] In the Twentieth Century, it was shown that John's attempt to explain away the Hellenistic tone of Dionysius's terminology inadvertently demonstrates his dependence upon the Fifth Century philosopher, Proclus.[16] Once Dionysius' claimed relation to the Apostle Paul was historically falsified, many came to conclude with Anders Nygren that "now no one could help seeing that the Christianity of Dionysius was entirely different from that of Paul and of the New Testament in general."[17]

Dionysius' influence in different areas such as architecture, literature and philosophy can hardly be overestimated. Erwin Panofsky claimed that Dionysius had a major influence on the development of Gothic style.[18] Sounding almost funny, but meant seriously, is Hugo Ball's remark on his conversion from Dadaism to Christian mysticism: "Als mir das Wort Dada begegnete, wurde ich zweimal angerufen von Dionysius. D.A.-D.A."[19] Anselm Kiefer produced several paintings entitled 'The Hierarchy of Angels', (Die Hierarchie der Engel), which reflect Dionysius' direct influence.[20]

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[14] John of Scythopolis, *Scholia*, Trans. Paul Rorem and John C. Lamoreaux, John of Scythopolis and the Dionysian Corpus, Oxford: Clarendon Press, 1998, p. 146. / John of Scythopolis (1998), 146

[15] Luther (1959), 109.

[16] See Saffrey (1982), 67 and Beierwaltes (2012a), 44–84.

[17] Nygren (1953), 577.

[18] Panofsky (1946, 1979²). Panofsky claims that Abbot Sugar read the Corpus Dionysiacum and was inspired by it in developing the Gothic style further. This has been disputed, but it would add an extra note to the Cathedral in question whose patron saint is St. Dionysius.

[19] "When I came accross the term Dada was called twice by Dionysius. Da.-Da." (My translation). Ball (1946), 296. Kobusch (1995), 98.

[20] One of these paintings was auctioned by Sotheby's. The catalogue states: "Interweaving myths, religion and history, *Die Ordnung der Engel* (*The Hierarchy of Angels*) is a consummate example of Kiefer's seminal practice. Whereas the artist's initial explorations sought to address German guilt and global post-war trauma, Kiefer's later work cast a much wider scholastic arc in search of universal truths. The magnificent regal tower of lead has a grandiose presence, usually attributed to the noble genre of History painting. Here, however, it is transcended by a more careful, empathic reading of the work's scorched surface. Below the low line of horizon, the wounded and fractured earth seems to have released a flock of tiny dresses numbered 1 to 9, spiralling upwards to the heavens. Incised above the

Jacques Derrida and Jean-Luc Marion debated for decades on the proper understanding of 'Negative Theology' in Dionysius and on its symbolism and language. The most important texts are 'Comment ne pas parler. Dénégations'[21] by Derrida und 'Lidole et la distance' by Marion.[22]

A careful examination of Dionysius' writings on the concept of God shows where he departed from the classical notions of God and creation, e.g. with Plotinus. For Dionysius, it is important to get a trinitarian concept within the notion of God being one. Werner Beierwaltes characterises Dionysius as "Christianus simulque vere Platonicus"[23], a slight modification of Marsilio Ficino's description of him: "Platonicus primo ac deinde Christianus".

Ascribing to God the names: ὑπερ-ἀγαθον, ὑπερ-οὐσία, ὑπερ-βίον etc., the divine names are beyond human inquiry, any description will be insufficient.

He incorporates into the number of intelligible names the traditional Neoplatonic intelligible categories: being, identity, difference, rest, and motion, as well as the Neoplatonic triad of being, life, and intellect. The fact that God transcends the common meaning of these names does not mean that he ought to be called "non-being," "non-life," or "non-intellect". Dionysius prefers to say that God is "over being", "over life", and "over intellect".

One of Dionysius' favorite sources of symbols is a verse from the 78th psalm, v. 65: "the Lord awoke, like a strong man, powerful but reeling with wine." Taken literally, the verse indicates that God sleeps and gets

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composition, the title refers to a text by Pseudo-Dionysius the Areopagite dating from the 4th-5th Century A.D. which outlines the 'celestial hierarchy'. Notably found in Jewish and early Christian traditions, the celestial hierarchy put forward by Pseudo-Dionysius classifies angels in three Spheres, each containing three subcategories called 'Orders' or 'Choirs'. The nine choirs navigate between heaven and earth to protect the throne of God, by descending order of importance. Punctuating the surface, the angelic orders allegorically represented in *Die Ordnung der Engel* by nine small white garments, linger in the nebulae between mortal and divine – though rather than pure and immaculate, they appear soiled and tainted with soot. Channelling the atmosphere of a godless post-apocalyptic world, *Die Ordnung der Engel* with its fallen angels seemingly caught in limbo over the ruins of a dehumanized land, echoing the victims of an infernal tragedy – perhaps the Shoah itself." Fortunately, one can find other paintings with the same subject in "The Art Institute of Chicago" and in the "Walker Art Center" in Minneapolis.

[21] Derrida (1992).
[22] Marion (1977).
[23] Beierwaltes (2012a), 50.

drunk on wine, two activities that properly apply only to embodied, visible beings. Only an embodied being can manifest the activities to which the names "sleep" and "drunkenness" literally refer. If we are to apply such terms to God, they must be attached to a foreign, intelligible content, that could lead the interpreter of the symbolic name to the contemplation of an intelligible name. In "sleep", for example, Dionysius finds a meaning common to both intelligible and visible things: withdrawal from the world. He concludes that God's sleep is his "removal from and lack of communication with the objects of his providence." In drunkenness, Dionysius sees a kind of over-filling, and so he explains that God's drunkenness is "the overloaded measurelessness of all goods in the one who is their cause." From the easily comprehended literal meaning of the term, the reader rises to the more difficult, intelligible terrain of imparticipability and measurelessness.

Drunkenness and sleep are what Dionysius calls "dissimilar similarities". They strike us as exceptionally unworthy of God, and so are "dissimilar", yet they reveal an intelligible truth capable of leading us to him, and so are "similar". Dionysius prefers such names to more appropriate names like "golden" and "luminous." The more the name seems appropriate, the more we are likely to be lulled into thinking that we have adequately comprehended Godhead in our use of the name. The very materiality and ignobility of the dissimilar similarities point out that the names do not literally describe Godhead, and compel the reader to seek the intelligible truth behind the names.

God, the One, the Good does not create out of necessity but out of His will according to Dionysius. He attributes love to the One, out of which creation emanates:

> And so it is that all things must desire, must yearn for, must learn, the Beautiful and the Good. Because of it and for its sake, subordinate is returned to superior, equal keeps company with equal, superior turns providentially to subordinate, each bestirs itself and all are stirred to do and to will whatever it is they do and will because of the yearning for the Beautiful and the Good. And we may be so bold as to claim also that the Cause of all things loves all things in the super-abundance of his goodness, that because of his goodness he makes all things, brings all things to perfection, holds all things together, returns all things. The divine longing is Good seeking good for the sake of the Good. That yearning which creates all the goodness of the word preexisted superabundantly within the

Good and did not allow it to remain without issue. It stirred him to use the abundance of his powers in the production of the world.[24]

The triune God, Dionysius calls also the thearchy. A major Neoplatonic insight plays a significant role in his notion of the creative process. Central to the God – world relation, or, to put it differently, the Creator – creature relationship is the *abiding – procession – return* (μονή - πρόοδος-ἐπιστοφή). "In Proclus' terms in the *Elements of Theology*, prop. 35: 'Every effect remains in its cause, proceeds from it, and converts to it'. This is a way of expressing the vertical connectedness of everything by identity, difference, and the overcoming of difference by a return to identity that constitutes the nature of anything that is caused."[25] As Dionysius says:

> It is time now for this treatise of mine to celebrate our many-named God for being 'Omnipotent' and 'Ancient of Days.' The first of these names is given, because, as the omnipotent foundation of everything, He preserves and embraces all the world. He founds it. He makes it secure. He holds it together. He binds the whole universe totally to himself. He generates everything from out of himself as from some omnipotent root and he returns all things back to himself as though to some omnipotent storehouse. Being their omnipotent foundation, he holds them all together. He keeps them thus in a transcendent bond and he does not permit them either to fall away from him or to be destroyed by being moved from their perfect home.[26]

The overflowing love of God's nature (ἀγάπησις, ἔρως) is the binding force in all creation.

Looking back or forward to the end of *Process and Reality,* one realizes again the strong (Neo)platonic influence on Whitehead:

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[24] CW 79 (708 A/B)

[25] Corrigan and Harrington (2015) Section 4.1. 1; Beierwaltes (2012 a), 59.

[26] CW 119/120. Ὥρα δὴ τῷ λόγῳ τὸν πολυώνυμον θεὸν ὡς παντοκράτορα καὶ ὡς παλαιὸν ἡμερῶν ὑμνῆσαι.
[Τὸ μὲν γὰρ λέγεται διὰ τὸ πάντων αὐτὸν εἶναι παντοκρατορικὴν ἕδραν συνέχουσαν καὶ περιέχουσαν τὰ ὅλα καὶ ἐνιδρύουσαν καὶ θεμελιοῦσαν καὶ περισφίγγουσαν καὶ ἀρραγὲς ἐν ἑαυτῇ τὸ πᾶν ἀποτελοῦσαν καὶ ἐξ ἑαυτῆς τὰ ὅλα καθάπερ ἐκ middot; ίζης παντοκρατορικῆς προάγουσαν καὶ εἰς ἑαυτὴν τὰ πάντα καθάπερ εἰς πυθμένα παντοκρατορικὸν ἐπιστρέφουσαν καὶ συνέχουσαν αὐτὰ ὡς πάντων ἕδραν παγ κρατῇ, τὰ συνεχόμενα πάντα κατὰ μίαν ὑπερέχουσαν πάντα συνοχὴν ἀσφαλιζομένην καὶ οὐκ ἐῶσαν αὐτὰ διεκπεσόντα ἑαυτῆς ὡς ἐκ παντελοῦς ἑστίας κινούμενα παραπολέσθαι. DN 214,16-/215,3 (936d- 937 a)

"What is done in the world is transformed into a reality in heaven, and the reality in heaven passes back into the world. By reason of this reciprocal relation, the love in the world passes into the love in heaven, and floods back again into the world. In this sense, God is the great companion - the fellow-sufferer who understands." (PR 351)

Even what Process-theologians claim as an exclusive attribute of Whitehead's concept of God has already a Neoplatonic forefather, as one can find in *Divine Names* of Dionysius:

And yet what do the theologians mean when they assert that ***the unstirring God moves*** and goes out into everything? This is surely something which has to be understood in a way befitting God, and out of our reference for him we must assume that this notion of his does not in any way signify a change of place, a variation, and alteration, a turning, the movement in space either straight or in a circular fashion or in a way compounded of both. Nor is this motion to be imagined as occurring in the mind, in the soul, or in respect of the nature of God. What is signified, rather, is that God brings everything into being, that he sustains them, that he exercises all manner of providence over them, that he is present to all of them, that he embraces all of them in a way which no mind can grasp, and that from him, providing for everything, ***arise countless processions and activities***.[27]

Τί δέ, καὶ ὅταν αὖθις οἱ θεολόγοι καὶ ἐπὶ πάντα προϊόντα καὶ **κινούμενόν** φασι τὸν ἀκίνητον; Οὐ θεοπρεπῶς καὶ τοῦτο νοητέον; **Κινεῖσθαι** γὰρ αὐτὸν εὐσεβῶς οἰητέον οὐ κατὰ φορὰν ἢ ἀλλοίωσιν ἢ ἑτεροίωσιν ἢ τροπὴν ἢ τοπικὴν κίνησιν, οὐ τὴν εὐθεῖαν, οὐ τὴν κυκλοφορικήν, οὐ τὴν ἐξ ἀμφοῖν, οὐ τὴν νοητήν, οὐ τὴν ψυχικήν, οὐ τὴν φυσικήν, ἀλλὰ τὸ εἰς οὐσίαν ἄγειν τὸν θεὸν καὶ συνέχειν τὰ πάντα καὶ παντοίως πάντων προνοεῖν καὶ τὸ παρεῖναι πᾶσι τῇ πάντων ἀσχέτῳ περιοχῇ καὶ ταῖς ἐπὶ τὰ ὄντα πάντα προνοητικαῖς **προόδοις** καὶ **ἐνεργείαις**.[28]

For Dionysius, it is absolutely necessary that God, the unmoved mover, has to move in some sense, otherwise, the Creation of the world could not be comprehended.

And yet, in some mode conforming to what befits both God and reason, one has to predicate ***movement to the immutable God***. One must understand the straight ***motion of God*** to mean the unswerving processions of his activities, the coming to be of all things from him. The spiral movement attributed to him must refer to the continuous procession from him together with the fecundity of his stillness. And the circular movement

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[27] CW 118 (emphasis mine).
[28] DN 213, 7-10 (916 C) (emphasis mine).

has to do with his sameness, to the grip he has on the middle range as well as on the outer edges of order, so that all things are one and all things that have gone forth from him may return to him once again.[29]

Ἀλλὰ καὶ **κινήσεις θεοῦ τοῦ ἀκινήτου** θεοπρεπῶς τῷ λόγῳ συγχωρητέον ὑμνῆσαι. Καὶ τὸ μὲν εὐθὺ τὸ ἀκλινὲς νοητέον καὶ τὴν ἀπαρέγκλιτον *πρόοδον* τῶν ἐνεργειῶν καὶ τὴν ἐξ αὐτοῦ τῶν ὅλων γένεσιν, τὸ δὲ ἑλικοειδὲς τὴν σταθερὰν πρόοδον καὶ τὴν γόνιμον στάσιν, τὸ δὲ κατὰ κύκλον τὸ ταὐτὸν καὶ τὸ τὰ μέσα καὶ ἄκρα, περιέχοντα καὶ περιεχόμενα συνέχειν καὶ τὴν εἰς αὐτὸν τῶν ἀπ' αὐτοῦ προεληλυθότων ἐπιστροφήν.[30]

Dionysius was aware of his departure from the classical concept of the Unmoved Mover and takes great pains to clarify why and in which sense the Unmoved Mover has to move. In his treatise, *Ecclestical Hierarchy,* he states what effect baptism has on the initiate: "His courage and his likeness to God, his firm thrust toward the One, make him indifferent to all contary things. Order descends upon disorder within him. Form takes over formlessness. Light shines through all his life."[31] The Christian always tries to attain the union with God. It is indeed the purpose of the ecclestical hierarchy to attain union with God, as far as possible.[32] This characterisation is very much in the Platonic tradition. In the dialogue, Theaitetos, Plato defines the aim of philosophy as assimilation to God: "…and to escape is to become like God, so far as this is possible; and to become like God is to become righteous and holy and wise."[33] The characteristics of a Christian can therefore be applied to God. He is unmoved, insofar as he is not affected by evil in a way which would make Him react in an evil way. God is not affected by evil in this unbounded and overflowing love which, of course, does not mean that he is not affected by the victims, those who

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[29] CW 119 (916 C/D) (emphasis mine).

[30] DN 213,15-20 (916C-916 D) (emphasis mine).

[31] EH 78, 11-14 (404 C) Τῇ γὰρ ἀνδρικῇ καὶ θεοειδεῖ τῶν ἐναντίων ἀπαθείᾳ καὶ τῇ πρὸς τὸ ἓν ἐν συντονίᾳ συννεύσει τὸ ἄκοσμον κοσμεῖται καὶ τὸ ἀνείδεον εἰδοποιεῖται τῇ φωτοειδεῖ καθόλου ζωῇ λαμπρυνόμενον.

[32] See e.g. ἡ δὲ θέωσίς ἐστιν ἡ πρὸς θεὸν ὡς ἐφικτὸν ἀφομοίωσίς τε καὶ ἕνωσις. EH 66, 12-13, And divinization consists of being as much as possible like and in union with God. CW 198; Εἴρηται τοίνυν ἡμῖν ἱερῶς, ὡς οὗτός ἐστι τῆς καθ' ἡμᾶς ἱεραρχίας σκοπός ἡ πρὸς θεὸν ἡμῶν ὡς ἐφικτὸν ἀφομοίωσίς τε καὶ ἕνωσις. EH 66, 12-13; We have, then, reverently affirmed that this is the purpose of our Hierarchy, viz., our assimilation and union with God, as far as attainable. CW198; i.a.

[33] Platon, Theait. 176ab: φυγὴ δὲ ὁμοίωσις θεῷ κατὰ τὸ δυνατόν: ὁμοίωσις δὲ δίκαιον καὶ ὅσιον μετὰ φρονήσεως γενέσθαι. … and to escape is to become like God, so far as this is possible; and to become like God is to become righteous and holy and wise. Plato, Vol. II p. 129.

suffer from evil. The concept of Evil in Dionysius is what Thomas Aquinas later called *privatio boni*. Evil cannot have the status of being.

> Thus, evil is contrary to progress, purpose, nature, cause, source, goal, definition, will, and substance. It is a defect, a deficiency, a weakness, a disproportion, a sin. It is purposeless, ugly, lifeless, mindless, unreasonable, imperfect, unfounded, uncaused, indeterminate, unborn, inert, powerless, disordered. It is errant, indefinite, dark, insubstantial, never in itself possessed of any existence.[34]

One has to assume that 'evil exists as an accident'. "It is there by means of something else. Its source does not lie within itself."[35] This is not identical with Whitehead's concept of evil, since, in Whitehead, evil is 'positive and destructive' in contrast to 'what is good is positive and creative'. (RM 83)[36] Assuming that evil has no existence in itself, it is appropriate to assume that nature is not evil, unlike what has been commonly assumed:

> There is no truth in the common assertion that evil is inherent in matter *qua* matter, since matter too has a share in the cosmos, in beauty and form. If matter lacked these, if it were inherently deficient in quality and form, if it lacked even the capacity to be affected, how could it produce anything?[37]

From this positive concept of Nature as a whole it makes good sense to attribute the same quality to the human body. A definite contradiction to

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[34] CW 94; Στέρησις ἄρα ἐστὶ τὸ κακὸν καὶ ἔλλειψις καὶ ἀσθένεια καὶ ἀσυμμετρία καὶ ἁμαρτία καὶ ἄσκοπον καὶ ἀκαλλὲς καὶ ἄζωον καὶ ἄνουν καὶ ἄλογον καὶ ἀτελὲς καὶ ἀνίδρυτον καὶ ἀναίτιον καὶ ἀόριστον καὶ ἄγονον καὶ ἀργὸν καὶ ἀδρανὲς καὶ ἄτακτον καὶ ἀνόμοιον καὶ ἄπειρον καὶ σκοτεινὸν καὶ ἀνούσιον καὶ αὐτὸ μηδαμῶς μηδαμῆ μηδὲν ὄν. DN 177, 10-15 (732 D)

[35] CW 94 (732 C)

[36] *Cf.* for a detailed description of good and evil in its objective as well as its subjective side in Whitehead see, Maaßen (1988), 84-128.

[37] CW 92 Ἀλλ' οὐδὲ τὸ πολυθρύλητον· Ἐν ὕλῃ τὸ κακόν, ὥς φασι, καθ' ὃ ὕλη. Καὶ γὰρ καὶ αὕτη κόσμου καὶ κάλλους καὶ εἴδους ἔχει μετουσίαν. Εἰ δὲ τούτων ἐκτὸς οὖσα ἡ ὕλη καθ' ἑαυτὴν ἄποιός ἐστι καὶ ἀνείδεος, πῶς ποιεῖ τι ἡ ὕλη ἡ μηδὲ τὸ πάσχειν δύνασθαι καθ' ἑαυτὴν ἔχουσα; Ἄλλως τε πῶς ἡ ὕλη κακόν; Εἰ μὲν γὰρ οὐδαμῇ οὐδαμῶς ἔστιν, οὔτε ἀγαθὸν οὔτε κακόν. Εἰ δέ πως ὄν, τὰ δὲ ὄντα πάντα ἐκ τἀγαθοῦ, καὶ αὐτὴ ἐκ τοῦ ἀγαθοῦ ἂν εἴη, καὶ ἢ τὸ ἀγαθὸν τοῦ κακοῦ ποιητικὸν ἢ τὸ κακὸν ὡς ἐκ τοῦ ἀγαθοῦ ὂν ἀγαθὸν ἢ τὸ κακὸν τοῦ ἀγαθοῦ ποιητικὸν ἢ καὶ τὸ ἀγαθὸν ὡς ἐκ τοῦ κακοῦ κακὸν ἢ δύο αὖθις ἀρχαί, καὶ αὗται ἄλλης μιᾶς ἐξημμέναι κορυφῆς. DN 174, 4-13 (729 A)

St. Paul and many interpreters, particularly if you consider his letter to the Romans, Chapters 6-8.[38]

> To men, with their composite nature, it grants whatever angelic life they are able to absorb and, overflowing with love for mankind, it returns us and calls us back to itself after we have strayed, and, more marvellous still, it has promised us that it will transform what we are – I mean our souls and the bodies yoked to them – and will bring us to perfect life and immortality. To antiquity this looked to be contrary to nature, but to me and to you and to the truth it appears divinely super natural.[39]

Creation in Dionysius is a continuing process, God's movement is ongoing, internally and externally, or in Karl Rahner's words, we have to distinguish economical and immanent trinity.[40] Dionysus would not agree with Whitehead's famous 6th antithesis in Process and Reality: "It is as true to say that God creates the World, as that the World creates God"(PR 348), but these antitheses may be a good starting point for comparing their different notions of God.[41] The similarities in Whitehead and Dionysius concerning God's ἀπαθεία in a special sense and his πάθος toward suffering and victims are obvious.

Much could be said about the concept of negative theology in Dionysius, his concept of language and silence, his major influence on Derrida, but that has to be dealt with in another paper.

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[38] E.g. Rm 6, 6: the body of sin: τὸ σῶμα τῆς ἁμαρτίας i.a.

[39] CW 104: δωρουμένη δὲ καὶ ἀνδράσι τὴν ὡς συμμίκτοις ἐνδεχομένην ἀγγελοειδῆ ζωὴν καὶ ὑπερβλύσει φιλανθρωπίας καὶ ἀποφοιτῶντας ἡμᾶς εἰς ἑαυτὴν ἐπιστρέφουσα καὶ ἀνακαλουμένη καὶ τὸ δὴ θειότερον ὅτι καὶ ὅλους ἡμᾶς, ψυχάς φημι καὶ τὰ συζυγῆ σώματα, πρὸς παντελῆ ζωὴν καὶ ἀθανασίαν ἐπήγγελται μεταθήσειν· πρᾶγμα τῇ παλαιότητι μὲν ἴσως παρὰ φύσιν δοκοῦν, ἐμοὶ δὲ καὶ σοὶ καὶ τῇ ἀληθείᾳ καὶ θεῖον καὶ ὑπὲρ φύσιν. Ὑπὲρ φύσιν δὲ τὴν καθ' ἡμᾶς φημι τὴν ὁρωμένην, οὐ τὴν πανσθενῆ τῆς θείας ζωῆς, αὐτῇ γὰρ ὡς πασῶν οὔσῃ τῶν ζωῶν φύσει καὶ μάλιστα τῶν θειοτέρων οὐδεμία ζωὴ παρὰ φύσιν ἢ ὑπὲρ φύσιν. DN 191,15-192,5

[40] First explicitly stated by Rahner (1967), 317-397, esp. p. 328. After that almost every treatise on the Trinity refers to this distinction.

[41] For a detailed analysis of the 6 antitheses see Maaßen (1988), 71-77; for Dionysius' concept of God: Suchla (2008) Part II: 87-128.

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Saint Augustine's Numerical Aesthetics in the Light of Process Metaphysics

Ana Rita Ferreira

My paper will re-examine some aspects of Saint Augustine's thought in the light of process philosophy. It is not my intention to claim that Augustine can be considered a "process philosopher", but I do believe that it is possible—and enlightening—to explore his philosophical approach to certain topics by reframing them in a conceptual apparatus pertinent to process philosophy. This alternative frame allows us to better understand certain impasses that traditionally mark classical theism, without giving up the substance view it entails. Thus, I propose a revisitation of Saint Augustine's thought through the lens of process philosophy, here adopted as a research paradigm of philosophical inquiry, which will give us new insight regarding some aspects that are usually considered secondary and tend to be neglected by Augustinian scholars.

There is a concept in Augustinian philosophy that I find particularly suitable for guiding us through this revisitation—the concept of *numerus* (number). The sensible expression of number as *species* (i.e. as beauty) unavoidably implies an aesthetical perspective on this subject that traverses the thought of the African philosopher and which has been unduly relegated to the shadow of the concept of *ordo* (order). Unlike *ordo*, *numeri* are relational indexes of proportion, of equality (*aequalitas*) and, better still, they reveal the hidden relation between divinity and creation, between unity and multiplicity. Unlike order, number does not behave like some sort of container, stabilizing things in hierarchical dispositions; number is more like a stream. It also determines levels of reality, hierarchies, and dependences—and thus order—but, more than this, number is a dynamism that crosses all entities, forming them and subordinating them to its source; and, on the other hand, also constituting their movements and the products of their actions. Numbers can be seen as a sort of encoding underlying all realities and revealing the rationale from which they originate—which is also number, albeit *numerus sine numero* (number without number).

I must stress that we are not leaving behind a substance view, even though we will be using the lens of process philosophy.

Keeping Augustine's numerical theory always in the forefront of our minds, I want to propose three contexts where a process view can be enlightening: 1) Saint Augustine's account of the divine creative act (which will be the subject of the first part of my paper); 2) his anthropology (which I will analyse in the second part); and 3) the Holy Trinity (analysed in the third and last part of my paper).

1. On creation

Following a lineage that harks back to Tatian and Theophilus of Antioch,[1] Augustine refused the theory of the pre-existence of matter and defended the *creatio ex nihilo*. God created the formless matter of creation out of nothing in the very first moment of the creative act—a single act, which Augustine explains through a triadic set of moments. These moments are not to be understood diachronically; they concern merely a logical description of the Genesis. The first moment, or *creatio prima*, is that instant, out of time, in which God created the heaven and the earth, referred to in the first verse of the Old Testament. The heaven and the earth are still amorphous and confused, but they have the potential to receive the form of all the things yet to come, and this is why they constitute the primordial matter of creation.[2] In the second moment, or *creatio secunda*, God gives form to the earth and the heaven and all that is in them. It is also in this second moment that time is brought into existence with the sequence of the six days of creation and the seventh day of the *Sabbath*, which does not mean a cessation of God's activity concerning creatures, but only concerning the creative act in these first two moments. Creation is perpetuated over time, under the providence of God, making recognizable a third moment. This is an ongoing moment spanning the multiplication of existing beings, through generations, alongside the materialization of seminal reasons.[3] Like germens of things, seminal reasons have been present since the first moment of creation, without any defined form, and they are actualized throughout history, under the providence of God. Divine motion is the internal cause operating within seminal reasons, whose

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[1] Tatian the Assyrian (c. 120–180) and Theophilus of Antioch (c. 120–186).

[2] De Gen. cont. Man I, 5, 9; I, 7; Conf. XII, 6, 6 - 8, 8.

[3] Augustine on seminal reasons or causal formulae: De Gen. ad litt. 6, 10, 17 - 11, 19; 14, 25 - 15, 26; De Trin. 3, 8, 13 - 9, 16. *Cf.* Boyer (1932); Brady (1949); McKeough (1926).

materialization also responds to external causes—such as, for example, scientific development. Seminal reasons can explain how novelty in our world is possible and yet is also the work of God, since all that already exists and all that only potentially exists and may in the future assume a definite form was already in an embryonic state in the *materia prima* of creation. In the *Confessions*, Augustine tells us that "Whereas whatsoever has not been made, and yet has being, has nothing in it which there was not before; this is what it is to be changed and varied".[4] Humankind cannot derive anything out of nothing, but there is an ongoing creative process in which humanity can also intervene as external cause,[5] which can give rise to forms or beings never before thought (for example, clones). God has known these forms ever since, because seminal reasons are linked, by participation, to the eternal Ideas existing in the mind of God and, by dependence, to His will. Creation is a free, loving act that began before the beginning of time, when God contemplated His Ideas (His Wisdom or Verb).

It was wisdom that gave numbers to all created things, says Augustine in the second book of *On the free choice of will*,[6] but he also states that wisdom and number are one and the same thing.[7] Wisdom is not superior to number. Number does not depend on wisdom, nor dwells within it; they both abide in truth. Is this number the same that is everywhere in our material world? Augustine gives us a particularly enlightening image: he says that wisdom and number are, respectively, like the heat and the light of a fire. They are consubstantial and the difference between them is merely perceptive. We perceive the heat only if we are close to the fire, but the light emanated by that very same source has a much wider scope. Wisdom is the heat only perceived by our soul already perfected, purified, and thus in a relation of proximity to God. Our bodies do not reach wisdom, but they can perceive the light of numbers (*lumen numerorum*). In the *sensibilia* (the things perceived by our bodily senses), numbers manifest themselves as

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[4] Conf. XI, 4, 6 (*CCL* 27, 197): "Quidquid autem factum non est et tamen est, non est in eo quidquam, quod ante non erat: quod est mutari atque variari".

[5] It is of course a cause that depends upon another, internal one; the ultimate cause is God. Augustine refers to natural causes, which are passive and caused, working as instruments of the ultimate cause. De Trin. III, 4, 9.

[6] De lib. arb. II, 11, 31.

[7] *Ibid.* II, 11, 30 (*CCL* 29, 258): "[…] [numerus et sapientia] una quaedam eademque res est; verumtamen quoniam nihilominus in divinis Libris de sapientia dicitur, quod *attingit a fine usque ad finem fortiter, et disponit omnia suaviter*, ea potentia qua *fortiter a fine usque ad finem attingit,* numerus fortasse dicitur: ea vero qua *disponit omnia suaviter,* sapientia proprie iam vocatur; cum sit utrumque unius eiusdemque sapientiae."

beauty (*species*). By making use of our rational soul it is possible to recognize those numbers beyond beauty and, at this point, there is no distinction between number and wisdom. The soul recognizes her own wisdom, and this wisdom allows the recognition of the number (there is a circularity here: number leads to wisdom, which leads to number, being both the same in Truth, i.e. in God).

Numbers cannot be deprived of beauty, although according to their distance from the source, their beauty fades (but again, this shortage is more a perceptive consequence than the defective nature of things). Without number, things would not exist. Number is proportional to being. It is simultaneously immanent and transcendent to the things of our world. Numbers work like a link between the Forms in the mind of God and the bodily forms in our sensuous world—which result from the ordering of matter imposed by number. Matter is not stable, nor enduring, since it is subject to corruption; but the same does not hold true to what refers numbers. I have been referring indistinctly to number, in the singular and in the plural, because what results from Augustine's perspective is this permeability between the Creator, *summus numerus*[8] or *numerus sine numero*, and His creation, ending in a valorization of the latter, thanks to presence of number, whose plural unfolding seems to be more a question of perspective than a real distinction between substantial and monadic numbers. Creation does not come from the substance of the Creator, because it is *ex nihilo*, but His presence in all created beings means that they bear His mark. Number is this mark—it is substance in God, but translates as relation in the created world. At the same time that number is a figure of stabilization, it is also the trace of the processual dynamism at the base of the ongoing nature of creation.

2. On man and free will (Augustine's anthropology)

God's creation is not at rest. Humankind is far from quiescent: time subjects our bodies to processes of aging and degeneration, and our souls, due to their imperfection, are compelled to regeneration. God has given human beings free will, and it is consistent to see in this freedom of volition the possibility of self-creativity. As creature of God, humankind has its own perfection, but as a project to itself, we have to strive in order to achieve our perfection. It is in the nature of the soul to turn itself to God, who gave

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[8] *Numerus sine numero*: De Gen. ad litt. IV, 4, 8 (*CSEL* 28.1, 100); *summus numerus*: De Gen. cont. Man. I, 16, 26 (*CSEL* 91, 93-94).

human beings the power to do so. This is a power that we can misuse,
turning the soul to changeable goods instead of turning to God.

God gave us free will because without it we could not do the right thing
and progress; but it is also through our free will that we do wrong and we
sin, deserving blame and punishment. Evil is thus a product of creative
freedom and cannot be ascribed to God, who should be praised either when
the creature is praised, or when the creature is blamed for its defective will.
God is always fair, punishing non-repenting sinners and giving happiness to
those who turn themselves to Him. He submits us to the consequences of
our choices, but He is not the cause of the misuse of our free will, even if
He foreknows our actions.

The will has a self-determinative power; otherwise there would not be
responsibility, merit, or demerit in our actions. Notwithstanding, God
governs over our will, since He gave us this inclination towards Him. We
have in our minds principles of morality, reflecting the eternal law, which
direct us to God and help us avoid wrong decisions and actions. Our will is
free, but it ought to be observant of moral obligations. Augustine overcomes
the apparent antinomy between free will and grace by pointing out this
persuasive, non-coercive character of the divine tweak of the soul. Wanting
to save all humans, God works in our hearts to incline our will; He invites
our soul to act according to its nature.

Freedom poses the problem of evil, which, by being a privation of good,
has no number. In its turn, beauty is *congruentia numerosa* (numerical
congruence or numerical agreement). The sphere of morality is tightly
related to the aesthetic realm. The progression of the soul is a beautification
process that starts with the recognition of numbers and the comprehension
of the relation between the whole and its parts. Evil exists as privation and,
despite not having substance, affects humankind, whose misuse of free will
has caused it. God, being omniscient and omnipotent, knew from the
beginning that evil would affect humankind and, yet, He allowed it to appear
and to persist. Evil has an instrumental value and God, who is not its cause,
has the power to order it, to integrate it as a valuable part of the whole.[9] Like
rests in a piece of music, evil introduces pauses and rhythms in the stream

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[9] OMM VII, 10 (73): "It is enough, I say, to have shown you that there is no way of
solving the religious question of good and evil, unless whatever is, as far as it is, is
from God; while as far as it falls away from being, it is not of God, and yet is ordered
by Divine Providence in agreement with the whole system"; and Ench. XCVI (267):
"Although, therefore, evil, in so far as it is evil, is not a good; yet the fact that evil
as well as good exists, is a good. For if it were not a good that evil should exist, its
existence would not be permitted by the omnipotent God, who without doubt can as
easily refuse to permit what He does not wish, as bring about what He does wish."

of numbers that constitute the universe, hence contributing to the harmony and the beauty of the whole. Although our limited point of view does not allow us to understand fully this articulation between the parts and the whole, evil is a necessary part of a universe that is wholly good. In the *pulchrum/aptum* dichotomy, evil falls within the second term, because it has no number or beauty in itself, and cannot please by itself, but helps to accommodate the beauty of the whole in its diversity and antinomy of parts.

Our earthly life is a process of becoming that has to do with the achievement of beauty, whether at the individual or the universal level. God knows all our numbers, even those that we have not yet reached. Augustine's eschatological account is very clear about how beatification equals beautification. After the final judgment, the *beata vita* entails the optimization of our body and soul. Having the cast of our individual perfection, God will redistribute the flesh of our spiritual body and reshape it without any trace of deformity or defect. Reordering our numbers, He will act like a sculptor, casting the perfect beauty of the resurrected flesh, attuned with the beauty of the soul. This beauty of our soul, however, can only be the outcome of our effort to reverse our inherit imperfection by conforming our will to the will of God and therefore progressing, through the recognition of numbers, *per corporalia ad incorporalia* and *ab inferioribus ad superiora*. *Beatitudo* demands a previous effort of self-creativity; human beings have the power to re-invent themselves in beauty, i.e. in conformity with the number and with the image of God, after which we were created.

3. The Holy Trinity

If becoming is the most striking feature of humanity, constancy and immutability are part of the perfection of God. Nevertheless, Augustine's God is a God of love—of relation—and this means that His perfection does not have a static character. God is *misericordissime et iustissime*.[10] He is

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[10] This passage in Latin, as well as those that will follow, are verses from the poem taken from Conf. I, 4, 4 (*CCL* 27, 2-3): "quid es ergo, deus meus?// summe, optime,/ potentissime, omnipotentissime,/ misericordissime et iustissime,/ secretissime et praesentissime,/ pulcherrime et fortissime,/ stabilis et incomprehensibilis,/ immutabilis mutans omnia,/ numquam novus numquam vetus,// semper agens semper quietus,/ conligens et non egens,/ portans et implens et protegens,/ creans et nutriens et perficiens,/ quaerens cum nihil desit tibi.// et quid diximus, deus meus, vita mea, dulcedo mea sancta,// aut quid dicit aliquis cum de te dicit?// et vae tacentibus de te, quoniam loquaces muti sunt." "What art Thou then, my God?// Most highest, most good,/ most potent, most omnipotent;/ most merciful and most just;/ most hidden and most present;/ most beautiful and most strong,/ standing firm

merciful and just, and in that sense, He cannot be apathetic. From Him, we receive compassion, bliss, or fatherly punishment, because He never ignores our thoughts and actions, responding to us accordingly. He answers our prayers, inspires fear within us, seduces us, reveals Himself, and He even made a covenant with His people—God has a strong social nature and, somehow, He experiences us. If we are unquiet beings and if He closely follows our lives, giving us what we deserve, then His unvarying nature can be equated with the stability of His relational character: His love is a changeless, everlasting dynamism. God is *semper agens semper quietus*. The continuous motion of divine love does not lack completion, although it escorts our becoming. God keeps on loving us, despite our sins. *Conligens et non egens / portans et implens et protegens / creans et nutriens et perficiens / quaerens cum nihil desit tibi*. He foreknows who will enter into His realm and yet He still wants to gather in His love, and to save, all human beings. His realm is complete but He continues to offer nurture and shelter to those who will not repent for their sins. God does not become, since there is nothing beyond Him—Who is *summe, optime*—, but He seems to enjoy our process of becoming, in which He participates by moving us through his continuous love and by attracting us with an aesthetic subtlety. His presence and actuality are in numbers, hidden behind the appearance of beauty: *secretissime et praesentissime / pulcherrime et fortissimo / stabilis et incomprehensibilis / immutabilis mutans omnia*…

Even without humankind, God would still be a relational being. Trinitarianism corroborates the non-static stability of God. The one who is *summus numerus* and *numerus sine numero* is a community of Three Persons in One Essence. This relational dynamism within the earthly realm is vertical and infinite: each number can be increasingly higher. In God, there is finitude of number, and relation assumes a horizontal deltaic disposition, translated as equality between God the Father, God the Son, and God the Holy Spirit. This equality seems paradoxical because it entails difference in the modes of relation of the Persons. The capital letter delta (Δ), which has the form of a triangle, is commonly used to describe change in mathematical terms, since delta is the initial letter of the Greek word διαφορά, "difference". There is no change or ontological difference in God. As substance, He remains the same. As relational being, however, He has

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and elusive,/ unchangeable and all-changing;/ never new, never old;// ever working, ever at rest;/ gathering in and [yet]/ lacking nothing;/ supporting, filling, and sheltering;/ creating, nourishing, and maturing;/ seeking and [yet] having all things.// And what have I now said, my God, my life, my holy joy?/ or what says any man when he speaks of Thee?/ And woe to him who keeps silent about you,/ since many babble on and say nothing." Translated by O'Donnell (1994).

three different modes of communion. The Father, *principium sine principio*[11] and identified with *caritas* (1 Jo. 4: 16), generates the Son, mirroring Himself. The Son is *per ipsum*,[12] but consubstantial with the Father, in whom He recognizes His identity. From the reciprocity of the relation between them proceeds a third dynamic—that of the gift (*donum* or *dilectio*)—and a third singularity—the Holy Spirit. This Person is also identical to other two, consubstantial and ever subsistent.[13]

The Triune God echoes Himself in the triadic structure of His creation, which He ordains in measure, number, and weight (*mensura, numerus et pondus*) (Wisdom 11:21). In God, measure, number, and weight subsist without any measure, number, or weight.[14] This triadic structure is also expressed as *modus*, *species*, and *ordo*.[15] According to von Balthasar,[16] to the pair *mensura/modus* corresponds the unity and efficient cause personated by the Father; through the pair *numerus/species*, which concerns the Son, the relation assumes the form of beauty (*species*) and corresponds to the exemplary cause; through the pair *pondus*/*ordo*, the disposition of things allows the attraction towards God and towards other creatures, being consistent with the good and the final cause. To our rational souls, weight (*pondus*) is the deliberation expressed in moral acts and in the just measure of our feelings; weight is like a balance of love and will, helping us avoid passionate disorder and balancing the intensity of our longings and true love, whose source is the Holy Spirit (Rom. 5:5).[17]

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[11] De ord. II, 5, 16.

[12] De Trin. I, 6, 9.

[13] De Trin. VI, 5, 7 (*CCL* 50, 235): "Spiritus ergo sanctus commune aliquid est Patris et Filii, quidquid illud est."

[14] De Gen. ad litt. IV, 4, 8 (*CSEL* 28/1, 100): "Mensura autem sine mensura est, cui aequatur quod de illa est, nec aliunde ipsa est: numerus sine numero est, quo formantur omnia, nec formatur ipse: pondus sine pondere est, quo referuntur ut quiescant, quorum quies purum gaudium est, nec illud iam refertur ad aliud."

[15] De nat. boni 3 (856): "[…] haec ergo tria, modus, species, ordo, tamquam generalia bona sunt in rebus a Deo factis, sive in spiritu, sive in corpore."

[16] von Balthasar (1989), 391.

[17] De Trin. XV, 21, 41 and Conf. XIII, 9, 10 (*CCL* 27, 246-247): "Cur ergo tantum de spiritu tuo dictum est hoc? Cur de illo tantum dictum est quasi locus, ubi esset, qui non est locus, de quo solo dictum est, quod sit donum tuum? In dono tuo requiescimus: ibi te fruimur. Requies nostra locus noster."

4. Epilogue

The emphasis on the processuality of God's relationship with Himself and with His creatures has led us to consider number, which is not a popular concept among Augustine scholars, despite its transversality and aptness to overcome certain presumed contradictory aspects of Augustine's thought.

The Triune God, at the same time *simplex et multiplex*, remains dynamic in His relational nature. God's triple metre echoes in the musical order of creation, which Augustine describes as a song or poem (*carmen universitatis*).[18] Measure, number, and weight are *vestigia trinitatis* that link all things in the diversity of their parts to the unity of the whole.

Until the end of time, God's creation will continue to unfold its polyphonic chords, encompassing dissonance as a harmonic device. Through the concept of *numerus*, as relational index, Augustine shows his agreement with a rational conception of aesthetic appreciation, which nevertheless does not predetermine an objective character of the aesthesis. His Christian Neo-Platonism allows him to conceive sensibility as a propaedeutic to the recognition of a divine rationality that ordain all things, and hence as a propaedeutic to the contemplation of the Creator—*beauty so ancient and so new*.[19] The progression of sensibility as a way of valuing and relating can be translated in the justness of the *ordo amoris*, whose judicious character anchors humankind's freedom to the laws of an eternal truth, revealing a parallel between aesthesis and intellectual thought, and between the sphere of human action and the judgement of sensible perceptions—in other words, between ethics and aesthetics.

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[18] *Cf*. Conf. XIII, 35, 50; De mus. VI, 11; De civ. Dei XI, 18; Ep. 138, 5.
[19] Conf. X, 27, 38.

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NATURE WITH OR WITHOUT MIND? – SCIENCE AND THE VIEW FROM NOWHERE IN THE 19TH CENTURY

DENNIS SÖLCH

1. The Scientific Point of View

For science, the exclusion of mind as a subjective phenomenon is a methodological requirement. Scientific knowledge about the world is based on facts, seen as properties of objects in the world, which need to be rigorously separated from intentional or unconscious distortions attributed to the mind. According to the *Encyclopedia Britannica*, science is the knowledge of natural phenomena achieved through the unbiased and rational study of observable regularities. "True regularities must be established by detached examination of data."[1] The normative claim, that scientific knowledge is inherently more reliable than, for example, knowledge from personal experience hinges on the disembodied perspective that Thomas Nagel has referred to as the "view from nowhere." It transcends not only our own particular perspective or even a generalized human point of view; the scientific perceptual point of view is entirely "featureless" and without any centre from which observation and description can be said to take place. Points of view are not proper aspects of the physical world as accounted for by science. "Whatever it contains can be apprehended by a general rational consciousness that gets its information through whichever perceptual point of view it happens to view the world from."[2] Formalization, standardization of measurement, repeatability, peer-review, cross-examination, control of the environment in laboratory situations and other procedures are to ensure the absence of biases and idiosyncrasies, and under all circumstances must science refrain from letting the concept of value slip into its observations or analyses.

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[1] "Science" in: *Encyclopedia Britannica, Vol. 27*, 15th edition, p. 32.
[2] Nagel (1996), 14f.

The concept of science as a detached procedure gives rise to a number of problems, the most difficult of which seems to be the proper consideration of the mind. The scientist looks at the world as a totality of facts that can be adequately described without recourse to subjective or intentional mental states. In a deliberate effort, her mind steps back from its own irreducibly subjective standpoint in order to take up a new position, in which the mind itself is included as a mere object. Instead of taking the mind as given and trying to understand how it relates to the world, science starts with the world as a given, in which the mind has to be accommodated. When the mind itself becomes an object of scientific inquiry it is either subjected to psychological analysis, considered in abstraction from the natural world, and approximated with scientific rigour by means of statistical evaluation, or it is treated as an additional natural phenomenon. In the latter case, mind is intimately linked with physiological properties, particularly with properties of the brain. Such a radically objectivized point of view leaves us in a paradoxical situation: the subjective dimension of the mind is separated from nature, i.e. the objectively describable reality, and its reintegration into the whole picture is conditioned by the structure developed by means of detached observation and conceptualization. Hence, the scientific concept of mind appears to be based on a misrepresentation of the mind's very nature, which includes the fact that the world is thought, felt and perceived from peculiar perspectives, all of which go along with a first-person point of view.

In his criticism of physicalism, Thomas Nagel has pointed out that such a juxtaposition of the subjective and the objective views is essentially irreconcilable. Science may succeed in stepping back from the subjective perspective and to provide a conception of the world that includes the initial first-person point of view, but only up to a certain degree of detachment. The scientific point of view begins as soon as we neglect the fact that it is the subject which steps back from a specific kind of viewpoint. "An objective standpoint is created by leaving a more subjective, individual, or even just human perspective behind; but there are things about the world and life and ourselves that cannot be adequately understood from a maximally objective standpoint."[3] Both views may converge tangentially, without ever meeting in a unified conception of nature and mind. The scientific study of nature, it seems, can only include mind as a natural phenomenon and, in contrast, necessarily excludes the mind as a mental phenomenon.

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[3] *Ibid*.

2. Criticism of Early Science

The notion of science as a methodically structured inquiry into nature based solely on factual sense data is a rather late development of modern European civilization. When the notion of 'scientist' was coined in the first half of the 19th century by William Whewell, natural philosophers were reluctant to embrace it and its connotations. Science was not yet thought of as a specialized discourse, limited to particular fields, but comprised a much broader spectrum of the intellectual culture. Self-taught individuals and academic specialists alike contributed to research, with scientific papers being published in the same journals as poetry, politics and theatre reviews. This unity, however, was already beginning to fall apart. Whewell gives an account of the tendency of the sciences to diversify and specialize, their "increasing proclivity to separation and dismemberment."[4] The diversification, Whewell complains, goes along with a valuation of rank among the individual branches of science, in which "the mathematician, left to himself, divides himself into a pure mathematician and a mixed mathematician, who soon part company" and the coherence of the picture is ushered into the background. "And thus science, even mere physical science, loses all traces of unity. A curious illustration of this result may be observed in the want of any name by which we can designate the students of the knowledge of the material world collectively."[5] The rather jocular coinage of the notion of 'scientist' to refer to the physical sciences in general is primarily an attempt to hold together the various and further proliferating terms for subdivisions of fields of study. The main problem, however, runs deeper and concerns the tendency of the natural sciences to claim exclusive possession of valuable knowledge of the world.

In his widely read criticism of modern culture as the age of mechanism, Thomas Carlyle attacked this prevailing tendency to study all phenomena exclusively with regard to material activity. "It is admitted, on all sides, that the Metaphysical and Moral Sciences are falling into decay, while the physical are engrossing, every day, more respect and attention. In most of the European nations there is now no such thing as a Science of Mind; only more or less advancement in the general science, or the special sciences, of matter."[6] With its growing prestige in the 19th century, physical science almost claimed for itself the word previously used for all knowledge. The implications of the notion of 'physical' in turn contributed to the belief that scientific, i.e. true knowledge equals knowledge of the material world as

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[4] Whewell (1834), 59.
[5] *Ibid.*
[6] Carlyle (1872), 236.

explained by the physical sciences.[7] Accordingly, for Carlyle the problem went far beyond the criticism of a culture that tended to reduce its habits of thought to a one-sided focus on mechanical materialism. While mechanism as a scientific paradigm might be justified on pragmatic grounds, its pervasion of metaphysics threatened to make the mind completely unintelligible to itself. Starting with Locke's sensualist account of the mind, philosophy had more and more withdrawn from a reflection of the premises and limits of materialism and instead embraced a physicalist way of explaining away the very source of its own scientific enterprise. Locke's *Essay concerning Human Understanding* to Carlyle was not a philosophy of the mind, but a scientific study of the natural conditions for the development of the mind.

> It is not a philosophy of the mind: it is a mere discussion concerning the origin of our consciousness, or ideas, or whatever else they are called; a genetic history of what we see in the mind. The grand secrets of Necessity and Freewill, of the Mind's vital or non-vital dependence on Matter, of our mysterious relations to Time and Space, to God, to the Universe, are not, in the faintest degree, touched on in these inquiries; and seem not to have the smallest connexion in them.[8]

To Carlyle, the explanation offered by Locke's empiricist epistemology for the interconnection between mind and nature is nothing but a more elaborated version of materialism that traces mental phenomena back to their non-mental origin. While it tries to elucidate the human mind by turning it into an emergent entity that is genetically dependent on the empirical world, it either avoids dealing with the reciprocal relationship or tacitly assumes a form of materialistic determinism. What is lacking is an explanation as to the principle according to which the mind emerges out of nature and is related to it; in short: empiricism lacks a unifying theory with mind and nature as kindred aspects of an overarching whole.

Whewell's and Carlyle's diagnoses are not directed against science per se. Unlike many of their Romanticist contemporaries, they do not identify the scientific project with some of its potentially baneful effects, but rather find it unsatisfying from a philosophical point of view. As long as the mind is paradigmatically excluded from a study of nature, the cleavage between the two fields is likely to gain momentum and establish itself as a fundamental dichotomy. The study of nature and the study of mind will each assume an independent existence, issuing in two heterodox cultures which

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[7] See Ross (2006), 70.
[8] Carlyle (1872), 237.

are apt to disregard one another's findings as unscientific or irrelevant, respectively. On the one hand, such a chasm opened up by 'hard' science and its back-up epistemology of empiricism suggests that a definite and experimentally verifiable causal nexus only holds within the realm of sensual phenomena. Facts are given, because they can be observed by the senses, and the totality of given facts is exhaustive of everything that can meaningfully be said about reality. On the other hand, the struggle for authority in interpreting the world inevitably leads to a loss of significance of moral, religious and even scientific truths. Statements about the inherent dignity of a human being that transcends its mere physical existence, or about an ontological relatedness between nature and spectator as conveyed by aesthetic contemplation, would soon be labeled 'true in a metaphorical sense' or 'poetically true' whereas the natural sciences would not even be expected to contribute to humankind's ongoing quest to understand itself.

Few people saw both the chances and the risks the quickly expanding sciences entailed for a comprehensive philosophy of nature more clearly than Ralph Waldo Emerson. He critically observed the shortcomings of an idealized objective scientific viewpoint, which seemed to essentially lack a human side. To him, the scientist who is cautious to avoid any trace of his peculiar human perspective cannot provide more than a mere positivistic register of the endless array of natural phenomena. The ultimate end of science should be "the extension of man, on all sides, into Nature," i.e. an increase of our knowledge about the manifold kinds of relations that have potential significance for our lives. "But that is not our science. These geologies, chemistries, astronomies, seem to make wise, but they leave us where they found us."[9] There is a decisive difference between a distanced viewpoint that is cautious not to abridge the process of formulating and testing hypotheses by conjecture on the one hand, and a detached perspective that is suspicious of its own meaning and actively avoids relating its findings to human life on the other hand. "Emerson would have agreed to exclude those human foibles that the objective method seeks to eliminate, he would, nonetheless, have maintained that the scientist, as human being, also possesses characteristics that are valuable, indeed desirable and necessary for the most fruitful use of the scientific method itself."[10] Unless the mind becomes an integral part of the scientist's fundamental methodology, her research will inevitably suffer from a number of significant shortcomings. Emerson's early lectures testify to an optimism that the materialist bias is nothing but an accidental feature of the

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[9] Emerson (1910), 270.
[10] Obuchowski (2005), 12.

naturalists' study of the animate an inanimate world. If it can be overcome, "no limit can be assigned" [11] to the powers of science.

3. Emerson's Early Science

In the second half of the eighteenth century, botany and zoology had greatly benefitted from the Linnaean system as a universal scheme to name and categorize the abundance of species of plants and animals. The new taxonomy provided the tool for an encompassing and consistent description of a wide field of nature. However, the scientific categorization essentially lacked an explanatory function. Linnaeus had been fully aware of the artificiality of his criteria for classifying orders and species. By choosing rather contingent aspects, such as the number of stamens, to group different plants together, he did not intend to provide a natural system which would indicate the essential relations between different kinds of plants. [12] What is more, his conviction that all genera had been created as separate types did not allow for internal relations to be expressed in the taxonomical system: "Every genus is […] created in the very beginning: hence one should not arbitrarily and on account of some theory or other rudely split it or join it to another one." [13] Thus, instead of relating man to nature in a coherent framework, science tended to become *l'art pour l'art*, mistaking the necessity of nomenclature as a methodological means for the end of scientific inquiry. "I do not […] undervalue the ordinary aids of science," Emerson says. "The necessity of nomenclature, of minute physiological research, of the retort, the scalpel, and the scales, is incontestable. But there is no danger of being underestimated. We only wish to insist upon their being considered as Means." [14]

While systematization and classification are indispensable for the coordination of further research, they must not be treated as an inventory that, once completed, will by itself provide a definite assemblage of the objects or phenomena which are relevant for the respective field of science. If science restricts itself to systematizing things according to contingent external parameters and thus becomes restrictive with regard to the phenomena it regards as proper elements of its field, it cannot claim to give an adequate account of nature. To be more than mere nomenclature, science needs to become a natural taxonomy, i.e. it needs to perceive the intrinsic

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[11] Emerson (1964, Vol. 1), 13.
[12] See Linnaeus (1735), 23.
[13] *Ibid*., 24.
[14] Emerson (1964, Vol. 1), 80.

likeness between related things. There is nothing in nature that is entirely unrelated to everything else; coherence is a prerequisite for any rational inquiry into the world as a whole. "Things are so strictly related, that according to the skill of the eye, from any one object the parts and properties of any other may be predicted."[15] The idea of the cosmos as an organic totality in which objects are in permanent interaction and can no longer be conceived as isolated entities with sharp outlines found scientific backing in the works of Michael Faraday, whom Emerson praised as "the most exact of natural philosophers."[16] Going beyond his teacher Humphry Davy, Faraday had decoupled electromagnetic forces from matter, in order to describe electric and magnetic energy as nonmaterial lines or fields of force. His research called into question the mechanical worldview of material atoms separated by a void of intervening space. There was no doubt that material bodies, such as copper linings, played a crucial role within a given experimental setting and that electric currents would not simply exist in the air, if the copper was taken away. Nevertheless, the phenomena of electromagnetism could not be reduced to the molecules involved in the setting. Based on a comparison of the atom density in different metals and their respective electrical conductivity, Faraday evidenced that space would have to be seen as a conductor in some cases whereas in other it would function as an insulator. The conclusion to be drawn from the phenomenon of electric conduction consisted in a complete reconceptualization of chemical atomicity.

> If we suppose an atom of oxygen and an atom of potassium to combine and produce potash, the hypothesis of solid unchangeable impenetrable atoms places these two particles side by side in a position easily, because mechanically, imagined, and not unfrequently represented; but if these two atoms be centres of power they will mutually penetrate to the very centres, thus forming one atom or molecule with powers, either uniformly around it or arranged as the resultant of the powers of the two constituent atoms: and the manner in which two or many centres of force may in this way combine, and afterwards, under the dominion of stronger forces, separate again, may in some degree be illustrated by the beautiful case of the conjunction of two sea waves of different velocities into one, their perfect union for a time, and final separation into the constituent waves[.][17]

According to Faraday, there was no need to retain a material nucleus to which the properties of an atom have to be ascribed. Instead, atoms should

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[15] Emerson (1910 Vol.3), 175.
[16] Emerson (1910, Vol. 8), 175.
[17] Faraday (1844), 143.

be seen as mere centres of power rather than material substances, making matter the resultant of invisible forces. Rather than speaking of isolated atoms that are causally effective over long distances, his model assumed a continuous nexus of interacting force fields that may overlap or mutually penetrate to temporarily form an atom or molecule, which might again be dissolved by the impact of stronger forces. The dominant materialism would have to be replaced by a more primitive, primordial energy without a distinct circumference.

> The view now stated of the constitution of matter would seem to involve necessarily the conclusion that matter fills all space, or, at least, all space to which gravitation extends (including the sun and its system); for gravitation is a property of matter dependent on a certain force, and it is this force which constitutes the matter. In that view matter is not merely mutually penetrable, but each atom extends, so to say, throughout the whole of the solar system, yet always retaining its own centre of force.[18]

In Faraday, Emerson found substantiated the idea that invisible energy is the primary agency constituting and shaping matter, which is its pattern, or form.[19] On Faraday's account, the rejection of materialist mechanism neither required a leap into ungrounded metaphysical speculation nor did it assume an undifferentiated absolute to replace discrete individuals. Each particle of matter is a microcosm of energy that is inextricably linked to everything else in dynamic, more or less temporary interrelations. Physical science thus radically undermined the empiricist assumption that complexity is reducible to discrete and isolated individuals whose properties, taken together, add up to the property of the complex system they are a part of. Understanding could no longer be seen as a straightforward operation of reducing complexity, which aims at precise explanations that only require a minimum of primitive elements that can be made fully explicit. Hume himself had had to admit that the expectations of actually achieving true knowledge in this way are doomed to be disappointed. Since relations between objects cannot be referred to sense data, causality is reduced to mere observable regularities. What is given are only temporary successions, while effective causal connections must inevitably remain a matter of animal faith or habit, as long as analysis is regarded as the key to nature. Backed by science, Emerson captures the aporia of classical empiricism, whose search for linear causal relations must always involve an element of arbitrariness, in a vivid image: "The method of nature: who could ever

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[18] *Ibid.*
[19] See Wilson (1999), 87.

analyze it? That rushing stream will not stop to be observed. We can never surprise nature in a corner; never find the end of a thread; never tell where to set the first stone. The bird hastens to lay her egg: the egg hastens to be a bird."[20] If, however, the temporary or rhythmic formation of individual particles is the effect of an interrelated systematicity rather than its cause, then the experimental isolationism taking place in laboratories may be regarded as a pragmatic reduction for the purpose of more detailed observation or prediction. It cannot be said to represent an ontological model of nature as it really is, but its status as an abstraction avoids the obvious inadequacy of the empiricist isolationism. To avoid distortion resulting from rigidly limited observation in laboratories, objects of scientific study need to be reintegrated in the context whence they originated. Otherwise science would find itself in a strange situation, in which the model simply replaces the reality it is meant to describe, so that the repeated experimental procedure tends to verify the self-evidence of the model, instead of providing new insights about nature.[21] The image of nature as a well-mapped mathematical system with linear causal relations between individual entities is replaced by that of an all-encompassing continuum of interactions all of which contribute to an entity being what it is. "Nothing but God is self-dependent. Every being in nature has its existence so connected with other beings that if set apart from them it would instantly perish."[22] The primordial interconnectedness of nature includes the scientist, whose position thus cannot be one of aloofness; she does not stand outside of nature glancing in, although she may reduce her involvement to the relation of mere hypothesis-guided visual observance.

4. Scientific Idealism

In order to avoid the fallacy of isolationism, science cannot do without a unifying theory of nature. It should not be reluctant to relate its facts to other branches of knowledge to achieve a coherent view of reality, and to integrate the human being. The scientific ideal, however, voiced, if possible, even louder today than in the nineteenth century, was to get the experimenting and observing human as much as possible out of experiment and theory. This, to Emerson, was plainly absurd. The proclivity to develop formal schemes with an assumed one-to-one correspondence to reality generally increases the distance between science and the phenomena in question,

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[20] Emerson (1910, Vol. 1), 190.
[21] See Windolph (2007), 155.
[22] Emerson (1964, Vol. 2), 17.

when these are stripped off their organic context. "What a parade we make of our science, and how far off, and at arm's length, it is from its objects!"[23] The analytical scheme provided by such detached existences as Lockean sensations not only fails when it comes to explaining relations without violating its own epistemological premises, but it also reduces the mind to the very components it observes. The mind, or subjective self, is a mere result of the action of external stimuli without any power to transcend the machine of sensations working upon sensations; with cause and effect as a strict coupling of invariable antecedence and consequence, the universe is a perfectly linear structure, leaving no room for creativity or free-will. The major problem, then, appears to be the fact, that the mind cannot give proper account of itself, when it does not find an adequate representation of itself disclosed in theory. "For Emerson, this was the dead end of science founded on Lockean sensationalism."[24] A science that wanted to rest on a sound epistemological foundation, to go beyond mere positivistic nomenclature and to do justice to human self-experience would have to include the mind on a more fundamental level. Its place was within the dynamics of the interrelated whole rather than outside of it.

Placing the subject in the centre of nature did not only appear a more adequate model as compared to the sensationalist scheme; it also promised greater relevance for the philosopher in the pursuit of human knowledge. Apart from the metaphysical dimension of the inextricable interconnectedness between subject and nature, the centrality of the subject in nature is epistemologically crucial. The essential role of the perceiving human subject for any attempt to transcend sensationalism and its scientific sibling of positivism is reflected by Emerson and integrated in a comprehensive idealist philosophy of nature. Natural relations are not discovered by recourse to the superficial resemblances of immediate sense data, but by the mind. "Science is the arrangement of the phenomena of the world after their essential relations. It is the reconstruction of nature in the mind."[25] Yet, in this sense, it is the idealist who is more scientific than the scientist himself, because "the idealist is the one who regards matter scientifically, the sensualist exclusively. The physical sciences are only well studied when they are explored for ideas."[26] Science generally refrains from speaking of (re-)constructing nature; its aim is representation rather than construction, and the view from nowhere is meant to ascertain that the scientist's activity is limited to devise experiments and theories so as to let nature speak for

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[23] Emerson (1910, Vol. 6), 267.
[24] Paul (1952), 17.
[25] Emerson (1964, Vol. 2), 27.
[26] Emerson (1965, Vol. 5), 123.

itself. In contrast, the most prominent example of a scientist who understood science to involve the subjective perspective in order to gain intersubjectively valid data, was Goethe, whom Emerson honored as the philosopher and scientist who "contributed a key to many parts of nature, through the rare turn for unity and simplicity in his mind."[27] In particular, Goethe's theory of the metamorphosis of plants appealed to Emerson's search for a monistic conception of nature that subscribed to the subjective dimension of reality without explaining away its material aspect.

The German writer and naturalist, sharing Emerson's disdain for Linnaean biology, outlined his methodology in the short treatise on *The Metamorphosis of Plants*. Morphology here is conceived as "a science of organic forms and formative forces aimed at discovering the underlying unity in the vast diversity of plants and animals"[28]. While the view from nowhere is restricted to a classification of the outward form of each type of plant and the quantitative aspects of its respective environment, the unity in variety would have to be detected by an experiential study that sees the stems, the leaves, the petals as embodiments of a formative principle. This *Urpflanze*, or primordial plant, however, should not be construed as a primitive archetype in the sense of a historical or metaphysical origin of evolutionary plant development. What later become appreciated by Darwin in the light of the paradigm of evolution, was in the first place the attempt to unify a phenomenological description of the plant and the developmental logic underlying the plurality of forms among plants. Hence, the *Urpflanze* does neither entail a Platonist concept of an ontologically primordial idea of the plant, nor does it stand for an abstraction that is arrived at by induction in order to summarize the common denominator of all plants. Recounting a conversation with Friedrich Schiller, Goethe insists on the empirical, rather than metaphysical, nature of his approach:

> I gave an enthusiastic description of the metamorphosis of plants, and with a few characteristic strokes of the pen I caused a symbolic plant to spring up before his [Schiller's] eyes […] But when I stopped, he shook his head and said, 'That is not an observation from experience. That is an 'idea'. Taken aback and somewhat annoyed, I paused; with this comment he had touched on the very point that divided us. It evoked memories of the views he had expressed in 'On Grace and Divinity'; my old resentment began to rise in me. I collected my wits, however, and replied, 'Then I may rejoice that I may have ideas without knowing it, and can even see them with my own eyes'.[29]

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[27] Emerson (1910, Vol. 4), 261.
[28] Goethe (2009), xvi.
[29] Goethe (1988), 20.

What can be intuited through the cumulative observation of plants is not an idea or concept, but the formative principle inherent in the concrete exemplars, which has an epistemological status similar to the hypothesis of electromagnetic forces in Faraday's physics. While it cannot be perceived directly by the senses, it becomes obvious to the acute and well-informed observer as the principle that inheres in the diverse forms the phenomena in question have assumed. Even here we might speak of an experimental setting; serious, scientific consideration of a plant, for example, cannot occur in just any situation or in passing. The observational context is scientifically arranged at least in the sense that a certain amount of time has to be dedicated to the investigation and a certain mood or focus needs to be assumed in order to explore the object in question. Goethe's morphology does not wholly transcend experience, because it is derived from and tested by renewed observation, yet it essentially requires the mind as an instrument within the process of scientific inquiry.[30] The typical is not embodied in a single individual and requires cumulative experience, but the observed phenomenon is not reduced to a sum of component parts; it merely allows to see deeper and to perceive more subtle connections, similar to the expert in a particular field whose immersion in and disciplined study of, say, a kind of sports, enables her to understand and anticipate developments that entirely escape the amateur. For the expert-scientist, the wealth of observed phenomena is meaningful as something intimately related to the workings of her mind. Although there might be conflicting views among experts, they generally find themselves in agreement about how to construe a particular field of interrelations beyond the dimension of observability. Goethe's rejection of the view of nowhere implies a slight and yet significant shift of emphasis involved in this mode of investigation. It is no longer the specific result of a scientific investigation as a totality of definite data that is aimed at, rather the method as such is productive of potentially divergent and yet meaningful results. Once established, the results might then be re-described in the form of external relations between distinct elements so as to be conclusive from a detached viewpoint in order to further ensure the freedom from subjective bias. However, for the objective observer, further research will remain more painstaking and less fruitful than for the scientist who sees through the outward diversity.

Emerson wholeheartedly embraced Goethe's approach as a form of science that was more likely to do justice to the immersion of the perceiving subject in the totality of nature, and he easily agreed that there was a crucial difference between those who "speak *from within*, or from experience, as

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[30] See Daston; Galison (2010), 69f.

parties and possessors of the fact; and the other class, *from without*, as spectators merely"[31] Only the mind was able to achieve a unified view of internally related objects. On the other hand, repeated and thorough observation, a critical examination of the hypothesis on the basis of observable features, distinguished the scientist from the fanciful amateur whose speculative conjectures were hardly likely to shed light on features that would hold more objective investigation. In contrast to the dominant tendency, as diagnosed by Whewell and Carlyle, "science for Emerson was not a rarified method or specialized field of study but the highest form of mental action"[32] and thus generally applicable to every scientific discipline, which becomes productive of more meaningful results, as the mind is involved in a higher degree.

5. Science of Nature and Mind

Fuelled by his interest in the scientific discoveries made in physics, biology and chemistry, Emerson sought to develop a theory of nature which would do justice both to the undeniable success of the empirical sciences and to the full-fledged criticism of the artificial separation of mind and nature under the guise of objectivity. As we have seen, the view from nowhere cannot fully exclude the mind, but reduces it to the role of a passive observer, who registers the relevant data by means of his senses. This would imply, however, that mere sense data can inform the scientist about the actual structure of the world. Even if it were legitimate to so conceive the world as a giant puzzle made up of neatly packed propositional pieces, it would still remain unclear as to how one might proceed from the process of experiencing to a verbal or mental representation of the facts in question. The claim that scientific experiments are devised in a way that allows nature itself to prove or disprove theories rather than the potentially biased and at least fallible scientist turns out to be a misleading trope: Scientific evidence in the form of observable facts as such cannot be a source of validity for the truth of a theory, because its role as evidence is only backed by the assertion that there is indeed a correspondence between the empirical data and reality. Static relations of observation and representation are inadequate accounts of scientific discovery, which requires a consideration of the more dynamic involvement of the human agent.

Nature does not consist in given elements or structures which could be 'read' in particular observational settings. It is to be conceived as a complex

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[31] Emerson (1910, Vol. 2), 269.
[32] Walls (2003), 4.

field of processes and activities, and these "invite us, by the powers they supply, to action proportionate to nature."[33] Proportional action is always relative to a given context which includes both the empirical setting and the persons involved. This context-relativity of inquiry, however, does not preclude successful rational understanding.

> Undoubtedly we have no questions to ask which are unanswerable. We must trust the perfection of the creation so far as to believe that whatever the order of things has awakened in our minds, the order of things can satisfy. Every man's condition is a solution in hieroglyphic to those inquiries he would put. He acts it as life before he apprehends it as truth.[34]

Action does not replace theory, but it precedes the intellectual reconstruction of nature in the mind. It is not subordinate to knowledge, as might be said from laboratory settings in which the arrangement of the technical apparatus is only meant to occasion a specific observational context. Every action in the sense of purposeful behaviour in an environment allows us to conceive of nature as that which corresponds to the outcome of the action, without making a clear-cut Cartesian distinction between mindless nature and self-contained mind. In this sense, several classes may be distinguished into which teleological engagements with nature can be divided: commodity, i.e. roughly the equivalent of applied natural science, beauty, language, and discipline.[35] Although these classes are not meant to be exhaustive of all possible regards, they already serve to indicate that Emerson offers a pragmatic theory of nature which encompasses empirical science without restricting scientific endeavour to methodologically restrictive approaches. Natural philosophy "proceeds on the faith that a law determines all phenomena, which being known, the phenomenon can be predicted. That law, when in the mind, is an idea."[36] Like Goethe, Emerson stresses the fact that scientific knowledge is not a way of rendering objective nature transparent from a fictitious non-perspective point of view, but a way of organizing experience. Mind is not a deduced phenomenon, but the very starting point for every inquiry as it decides on the relevant context, the intention effective of observation or other actions, and the resultant consequence of the process of inquiry. This insistence on the centrality of mind is not a merely trivial hint at the obvious; the pragmatic concept of action in nature shifts the locus of observation

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[33] Emerson (1910, Vol. 1), p. 3.
[34] *Ibid*., p. 9f.
[35] *Ibid*., 18.
[36] *Ibid*., 59.

from an intuited outside to the mind of the first person which changes continuously throughout every operation. Hence, every law of nature is always also a law of the mind.

> Space, time, society, labor, climate, food, locomotion, the animals, the mechanical forces, give us sincerest lessons, day by day, whose meaning is unlimited. They educate both the Understanding and the Reason. Every property of matter is a school for the understanding, – its solidity or resistance, its inertia, its extension, its figure, its divisibility. The understanding adds, divides, combines, measures, and finds nutriment and room for its activity in this worthy sense. Meantime, Reason transfers all these lessons into its own world of thought, by perceiving the analogy that marries Matter and Mind.[37]

Knowledge about the natural world, as provided by the sciences, is ultimately something that pertains to the knowing mind. Instead of sense data that are supposed to contain information about the objective world, the scientist engages with experiences that need to be interpreted. Accordingly, there are degrees or levels of 'objectivity', i.e. interpretations of the phenomena in question with more or less immediate reference to the subjective mind of the individual researcher. "Our life is an apprenticeship to the truth that around every circle another can be drawn; that there is no end in nature, but every end is a beginning"[38] and none arrives at an imagined givenness of the natural world. There is no final overarching theory that might be discovered through a particular methodological approach and would put an end to all further research. The unity found in nature is always unity constructed in the mind, which thus at the same time affirms its own distance to this coherence and prevents the mind from vanishing among its objects.

"Every man is a new method and distributes things anew. If he could attain full size he would take up, first or last, atom by atom, all the world into a new form."[39] However, and this is crucial to Emerson's understanding of science, the idealist theory of nature is by no means arbitrary and does not allow for notions of radical constructivism. Even the individual rendering of theories about the multifarious experiences the subject has, is dictated by laws. In fact, according to Emerson, the relation of nature and mind might be formulated in laws as strict as those laws of nature in which the mind appears to play no significant role whatsoever, allowing for a *Natural History of Intellect* that would follow the developmental logic of

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[37] *Ibid.*, 42.
[38] Emerson (1910, Vol. 2), 3.
[39] Emerson (1910, Vol. 12), 27.

mind throughout human history. Most importantly, science would no longer hold us off 'at arm's length.' Emerson points out that it is still to be understood as a methodological, rational and disciplined endeavour, not, however, as an end in itself, but as a significant contribution to the self-enlightenment of the human mind.

> And neither can man be understood without these objects, nor these objects without man. All the facts in natural history taken by themselves, have no value, but are barren, like a single sex. But marry it to human history, and it is full of life. Whole floras, all Linnaeus' and Buffon's volumes, are dry catalogues of facts; but the most trivial of these facts, the habit of a plant, the organs, or work, or noise of an insect, applied to the illustration of a fact in intellectual philosophy, or in a way associated to human nature, affects us in the most lively and agreeable manner.[40]

The counterintuitive notion of a view from nowhere lacks both any pragmatic value – an insight that is too often overlooked due to the technical applications also provided by science – and an adequate theory of nature that would account for the fact that there will always be a first-person point of view on a fundamental level. As soon as science accepts the inherent relatedness of all phenomena including the mind, it need no longer be ashamed of talking about moral or religious lessons to be learned from nature. Each new discovery opens up a wider realm of new, hitherto unnoticed facts and thus constantly expands the field of speculations productive of knowledge. "Modern science takes its place not as the conquering opponent of nature but as nature's destined extension, its supplement and continuation."[41] Overcoming the view from nowhere for Emerson amounts to a liberation of science and philosophy: Empirical sciences that incorporated a Goethean phenomenological approach would thrive faster and keep in touch with philosophy as the extension of nature to man.

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[40] Emerson (1910, Vol. 1), 33f.
[41] Walls (1997, Vol. 5(3)), 457.

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SYMBOLISM AND DIALOGUE:
THE LANGUAGE OF DISCOVERY

ALJOSCHA BERVE

The philosophy of Alfred North Whitehead escapes simple and obvious classification. Oftentimes, if a verdict about his metaphysical concept expresses scepticism, Whitehead's use of language is part of the criticism. Even well-meaning scholars sometimes express doubts about Whitehead's way of handling language; Eberhard Bubser for example calls his philosophy a case of "Begriffsdichtung"[1]. The criticism of the way language is used in his writings is one of the first critical reactions in the philosophical reception of Whitehead's philosophy of organism. It almost seems as if the difficulties in grasping the concept behind his terminology obfuscate a proper understanding of his system of metaphysics or, even worse, expose his metaphysics to the allegation of incomprehensibility – and, indeed, this was one of the first suspicions Whitehead's contemporaries raised about his philosophy.[2] In order to understand the importance of language in his philosophy, it is necessary to examine a number of topics, such as the limits of philosophical insight, the relation of terminology and method, propositions and symbolism and finally, following Plato, Whitehead's insistence that the ineluctable multiperspectivity of scientific discourse necessitates a concept of philosophy that emulates a dialogue. Only the combination of these topics allows for an adequate understanding of the role of language in the philosophy of organism, explaining Whitehead's "esoteric terminology"[3], the fundamental importance of symbolism and the quasi-dialogic conception of his thinking.

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[1] Bubser (1972), 279.
[2] Urban (1941), 322.
[3] Hughes (1941), 296.

1. The limits of philosophical insight

In his philosophy of organism, Whitehead attempts to understand the universe in an organic overall context. This suggests a mindset that does not strife for sharply delineated, eternal truths, but for a coherent whole which also considers the ambiguous parts of our daily experience. Whitehead once framed his view of the world in a letter to Bertrand Russell: "You think the world is what it looks like in fine weather and noon-day; I think it is what it seems like in the early morning when one first wakes from deep sleep."[4] Indeed, clearness and distinctness of thought for Whitehead are the very achievement of the human faculty of insight, whereas the ambiguous and vague is the normal condition of the universe:

> Human knowledge is a process of approximation. In the focus of experience there is comparative clarity. But the discrimination of this clarity leads into the penumbral background. There are always questions left over. The problem is to discriminate exactly what we know vaguely. […] In our experience there is always the dim background from which we derive and to which we return. We are not enjoying a limited dolls' house of clear and distinct things, secluded from all ambiguity. In the darkness beyond there ever looms the vague mass which is the universe begetting us. (ESP, 93)

Of course, Whitehead believes that the clear-cut, distinct identifiable exists, but only as an ideal. He attaches great importance to the "vague mass" because, in common life, there is no clear distinction of the individual things from one another – human beings at best can hope to approximate ideals asymptotically without being able to comprehensively realise them in factual experience. Clarity of thought is the result of a thorough process of abstraction.[5] Whitehead's understanding of the prospects of philosophy shows his reticence against discovering distinct truths and expressing them ultimately, devoid of any connection to a particular reality. In the beginning of *Process and Reality*, he outlines the possibilities philosophy has to enunciate the first principles:

> Philosophers can never hope finally to formulate these metaphysical first principles. Weakness of insight and deficiencies of language stand in the way inexorably. Words and phrases must be stretched towards a generality foreign to their ordinary usage; and however such elements of language be stabilized as technicalities, they remain metaphors mutely appealing for an imaginative leap. There is no first principle which is in itself unknowable,

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[4] Russell (1956), 41.
[5] See ESP, 80 ff.

not to be captured by a flash of insight. But, putting aside the difficulties of language, deficiency in imaginative penetration forbids progress in any form other than that of an asymptotic approach to a scheme of principles, only definable in terms of the ideal which they should satisfy. (PR, 4)[6]

Since language is no means of expression independent from individual perspective, verbal communication can never hope to convey clear and distinct knowledge to other human beings. Instead, the metaphorical character of language makes it necessary to include the complex background of experience of every human being into the process of understanding: connotations and associations that connect the penumbral background of the unconscious and vague parts of our experience with our conscious thoughts have to be taken into consideration as well as the framework of the many assumptions we pragmatically make in order to be able to concentrate attention upon a certain area of our conscious deliberations.[7] In order to understand a certain situation comprehensively, it would be necessary to take all circumstances of the perspective concerned into consideration. Therefore, in Whitehead's opinion, no tool of knowledge such as logic or language can hope to serve as the single pattern of insight. Rather, the task of philosophy has to be to take into account the background of the supposedly clear facts of experience.[8] Common sense has to be the basis for any deliberation of logics in order to be able to decide which aspects of certain situations are important or unimportant, which aspects of the investigation in this context are relevant or irrelevant. This is the meaning of the closing phrase of Whitehead's last presentation, *Immortality*, where he comes to the conclusion that "exactness is a fake"[9]. The great achievement of the philosophy of organism is not to be seen in the brilliance of its particular explanations but in the coherence of the overall context that

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[6] A very similar passage about the insufficiencies of language can be found in ESP, 96.

[7] Whitehead's basic attitude to exactness and permanence of the meaning of language is marked by obvious scepticism: "Words […] do not express our deepest intuitions. In the very act of being verbalized they escape us. The trouble is that we are in the habit of thinking of words as fixed things with specific meanings. Actually the meanings of language are in violent fluctuation and a large part of what we try to express in words lies outside the range of language." (Price (1954), 295.)

[8] See Whitehead's statement concerning the task of philosophy in *Adventures of Ideas*: "The existence of such perplexities arising from the common obviousness of speech is the reason why the topic exists. Thus the very purpose of philosophy is to delve below the apparent clarity of common speech". AI, 222.

[9] ESP, 74. The statement that "we have to rely upon common sense" precedes this conclusion by a few sentences (see ESP, 73).

Whitehead establishes by amalgamating many different topics and perspectives.

2. Terminology and method

In the epilogue of his last philosophical work, *Modes of Thought*, Whitehead again poses the question of what the aim of philosophy is. The point that every philosophy has to always be willing to scrutinise the primitive basic assumptions its foundations are erected upon is accompanied by the insight that the means of language used in philosophy are limited. It is not the accurate usage of distinct terms alone that determines philosophy. If this were the case, only precisely defined categories of terminology would be developed and these would sink back to the status of commonplaces of thought. Furthermore, it is the task of philosophy to create a leap of thought by instrumentalising the ambiguity and associativity of language in a rational way:

> If you like to phrase it so, philosophy is mystical. For mysticism is direct insight into depths as yet unspoken. But the purpose of philosophy is to rationalize mysticism: not by explaining it away, but by the introduction of novel verbal characterizations, rationally coordinated.
>
> Philosophy is akin to poetry, and both of them seek to express that ultimate good sense which we term civilization. In each case there is reference to form beyond the direct meanings of words. Poetry allies itself to metre, philosophy to mathematical pattern. (MT, 174)

For Whitehead, philosophy requires an approach completely different from those that are generally utilised in scientific methods. The intuitive direct insight he talks about is not compatible with either strictly deductive or inductive procedure. Indeed, this process of "direct insight" is necessary, since even terms and concepts which are used in a systematic way are "metaphors mutely appealing for an imaginative leap" and require an immediate impulse of imagination. By the very nature of language as he understands it, Whitehead necessitates a scientific method depending on the activity of speculation. It comes as no surprise that he varies his vocabulary between different examinations. While *Process and Reality* is designed to display Whitehead's general method of philosophy and his cosmological system along with his categoreal scheme and does not develop its own specific terminology to describe the phenomena and problems of our common experience, *Adventures of Ideas* and *Modes of Thought* are characterised by another literary style: Not only the terminology differs between the three works, but also the topics covered. Upon comparing the

notions Whitehead uses in the different works to describe the same facts and
circumstances, in some cases there are differences within a generally
consistent terminology.[10] The reasonable amount of variations between
different works should not suggest negligence or flightiness, because within
the context of each individual work, the terminology is consistent. The
accusation of Whitehead's philosophy being imprecise, redundant or
fluctuating[11] is continually repeated in research literature, but remains
entirely unjustified. Rather, Whitehead tries to furnish each of his works
with a conceptual structure that fits with its scope of topics discussed. Since
he conceives of language as something alive that emerges from the changing
circumstances of its daily usage and cannot be defined in its essence in a
formal-definitory way but rather by explication,[12] every topic alluding to
certain aspects of life praxis demands a reflection of terminology respecting
all connections, be they historical, systematic or about everyday-experience.

   An example for this is the concept Whitehead calls "propositions" or
"theories" in *Process and Reality*.[13] In *Process and Reality*, Whitehead's
aim is to provide an alternative to the utilization of propositions merely
within the limited confines of logic, as is the case in analytical philosophy,
therefore he employs a terminology that supports this connotation. For him,
propositions are not merely logical statements, but lures for feeling – they
propose a certain topic which proposes to be interesting. The second notion,
"theories", describes another aspect of the concept of propositions:
Propositions are supposed to cover the role of scientific theories as well. In
the tradition of *Charles Sanders Peirce*, Whitehead conceives of scientific
progress as a progression of hypotheses, which have to be promising enough
to be taken seriously. The notions of "proposition" and "theory" indicate the
field of interest Whitehead covers in *Process and Reality* – he is chiefly
interested in outlining the limits of science from the perspective of
philosophy. In *Adventures of Ideas*, he uses the same concept of
propositions, but instead of calling them propositions, he uses the notion of

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[10] An example for this would be Whitehead's concept of the processual subject,
described in the technical terms of the metaphysical concept in *Process and Reality*
as "actual entity" or "actual occasion", in *Science in the Modern World*, however,
the same concept is simply called "event". The difference between describing a fact
in a formal, systematic manner on the one hand and describing the same fact in a
more casual way on the other hand can be distinct.
[11] See Kann (2008), 78. With this formulation, Kann characterises a quite popular
position amongst Whitehead-scholars concerning Whitehead's use of terminology,
which he tries to disprove.
[12] See Kann (2008), 97.
[13] See PR, 22.

"appearance". It is fully justified to see this as an allusion to *Francis Herbert Bradley's* work *Appearance and Reality*.[14] While he is often critical of Bradley, Whitehead also notes some similarities between both philosophical concepts. Indeed, Whitehead muses whether the fifth part of *Process and Reality*, which deals with the notion of "God", was not "a transformation of some main doctrines of Absolute Idealism onto a realistic basis". (PR, xiii). Now, a central concept of Bradley's philosophy is the notion of "harmony". And when Whitehead introduces the notion of "appearance" in the last part of *Adventures of Ideas*, he also deals with the notion of harmony, although, when considering harmony, he does so with explicit reference to Plato and not to Bradley. However, Bradley might have been an equally suitable explicit reference, because the positions of Whitehead and Bradley concerning the notion of harmony are quite similar. The closeness to Bradley exposes Whitehead's field of interest in *Adventures of Ideas*, which is very different from the one covered in *Process and Reality*, namely, the exploration of seven general Platonic notions. This also explains why he does not use the term "proposition" or "theory" but "appearance", although all three of them reference the same structure. One and the same basic concept is employed in the different contexts of *Process and Reality* and *Adventures of Ideas*, but the varying terminology is supposed to allude to different spheres of philosophical argument. This is an example for Whitehead's use of language and terminology which shows that, for him, not individual terms are important, but the overall context:

> [P]eople compose either in words satisfying their ideas of things, or they compose in concepts and then try to find words into which those concepts can be translated. I may add that my own method is the second.[15]

Whitehead's style is consistent. In his philosophical writings, there is an alternation between passages of deep, terminologically highly precise examinations of metaphysical structures and passages of a confabular literary style sketching historical developments. These casual discussions often switch abruptly into difficult trains of thought. The reason for this, again, is not flightiness or methodical inconsistency, but the switch between two modes of analysis. While, in the deep metaphysical reflections, the

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[14] The title of Bradley's main work is *Appearance and Reality: A Metaphysical Essay*. The parallel to the title Whitehead's main work *Process and Reality. An Essay in Cosmology* is too obvious by far to be a mere coincidence.
[15] Price (1954), 182. Affirmatively, Whitehead states about his own method: "I do not think in words. I begin with concepts, then try to put them into words, which is often very difficult." *Ibid.*, 150.

cosmological theory is discussed with the highest possible degree of precision, Whitehead proceeds in a much more casual style when he treats historical developments of certain topics and debates. The connection to philosophical tradition is of eminent importance for him; philosophy as an always unfinished business which has to deal with the permanently changing circumstances of its time can be understood, for Whitehead, as an evolutionary process defined by the issues of contemporary science. For this reason, the philosophy of organism is supposed to take up the lines of thought of philosophers of the past. He repeatedly criticises certain philosophical traditions, for example the Cartesian philosophy, sometimes on a fundamental level, and sometimes reads some authors in a very idiosyncratic way against the grain, but all of that is, for him, the necessary argument with the evolution of philosophical discourses.[16] Obviously, he understands the development of philosophy in a certain analogy to that of physics and mathematics. Facts that were, in the strict sense of the word, true in the past and are considered obsolete today are still interesting as instigators for the accepted contemporary scientific consensus. They can, if observed within the framework of their own systems of thought, focus attention upon what can be appreciated as explicit progress of the new theories compared to the old ones:

> We no more retain the physics of the seventeenth century than we do the Cartesian philosophy of that century. Yet within limits, both systems express important truths. Also we are beginning to understand the wider categories which define their limits of correct application. (PR, 14)

If philosophy cannot hope to formulate an ultimate system of fundamental metaphysical truths but instead has to approximate the ideals shaped by the circumstances of its time asymptotically, the historical development of metaphysics has to be of special significance. At the same time, Whitehead often writes in a casual style when he explores the history

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[16] See the foreword to *Process and Reality*. Whitehead names a number of thinkers he wants his own system of thought to be based upon. The method of understanding philosopical traditions of the West as an evolutionary process and founding the own theory explicitly in the concepts of important thinkers is based upon Whitehead's understanding of the philosophical tradition: "What is important is that the scheme of interpretation here adopted can claim for each of its main positions the express authority of one, or the other, of some supreme master of thought-Plato, Aristotle, Descartes, Locke, Hume, Kant. But ultimately nothing rests on authority; the final court of appeal is intrinsic reasonableness. The safest general characterization of the European philosophical tradition is that it consists of a series of footnotes to Plato." (PR, 39.)

of a certain thought since he expects something different from the broad historical debate than he does from the terminologically precise method of his conceptual thinking in metaphysics. Exactly *because* he regards language as an imprecise instrument in the end, he does not want to constrain his general description by using a fixed, systematic web of defined terms. Rather, the reader is supposed to get a comprehensive impression of the overall picture, which Whitehead intends to use as the basis for his detailed inquiry. This method reveals his conviction that the most important virtue of philosophy is not the precision of its different analyses, but the insight into the limitations within which the distinct analysis can be undertaken in a precise and consequent manner:

> I am impressed by the inadequacy of language to express our conscious thought, and by the inadequacy of our conscious thought to express our subconscious. The curse of philosophy has been the supposition that language is an exact medium. Philosophers verbalize and then suppose the idea is stated for all time. Even if it were stated, it would need to be restated for every century, perhaps every generation. Plato is the only one who knew better and did not fall into this trap. When ordinary methods failed him, he gave us a myth, which does not challenge exactitude but excites revery.[17]

In the passages in which the philosophy of organism discusses its own central ideas, the text adopts the style of a terminologically cohesive presentation that allows Whitehead to strive for the highest possible degree of precision. One of the most striking aspects of the philosophy of organism's network of terms is the frequent stretching of the meaning of concepts and terms, taking them out of their traditional context and employing them in an environment foreign to their customary utilization. While the notions employed in this manner are not strictly speaking

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[17] Price (1954), 368. In another passage, Whitehead leaves no doubt about his preference of philosophical method between definitionally cohesive precision and flexibility ready to accept vagueness: He regards Aristotle's ethics as "admirably definite" in contrast to Plato's more "vague" ideas on this topic, but gives preference to Plato's vagueness. The reason is his belief that Plato was the only man of the ancient times who would not have been surprised by the development humanity took, because his mode of thought "took into account the unpredictable, the limitless possibilities of things" (*ibid*. 344). Similar to his approach to modern writers, Whitehead assesses classical authors according to the degree in which their discoveries fit into the changing circumstances of different times and can be interpreted against the background of entirely altered common experiences. A similar distinction between Plato and Aristotle with regard to the criterion of precision of definition can be found in MT, 15.

neologisms, they sometimes seem to be archaisms consciously chosen by Whitehead to convey a specific meaning without the wealth of connotations contemporary language necessarily carries. For example, the notion "prehension" and, even more so, the verb "to prehend" are quite uncommon in modern English and remind heavily of "apprehension" and "to apprehend", but can be understood intuitively. Whitehead uses them to describe a kind of feeling that is more basic than apprehension, a feeling that is an immediate actual and emotional seizing of objective data: The very notion of "prehension" reminds of the basic act of seizing something with one's hands. Another example for his specific terminology is the notion "adversion" to describe the opposite of "aversion", which he uses in order to explain what he calls the "qualities of joy and distaste"[18] inherent in every valuation upwards or downwards by the actual entity. Although the notion "adversion" is an obsolete word that was rarely used in 18th century English and has faded from usage since, its meaning is intuitively captured by the reader. Whitehead thus intends to present his concept to the reader with as little connotations to well-known and well-trodden philosophical notions as possible and thereby avoid erroneous or obfuscating associations as much as possible. As soon as the reader has been familiarised with the form of the presentation, the text can proceed with the analysis of thinkers of the philosophical tradition with regard to the possible analogy between notions of their models of thought and the notions of the philosophy of organism.

The diligence with which Whitehead introduces terms into his cosmological scheme and his consequence in utilising them in his texts are surprising at first glance when contrasted with the reservations he has about the possibilities of language. However, his pursuit of maximum precision in the expression of language can also be understood as the *consequence* of this attitude: Whenever the circumstances require a precise systematic explanation instead of the overall view embedded in the larger context, the means of language have to be as applicable as possible. Therefore, as Whitehead says, words and metaphors must be stretched towards a generality foreign to their ordinary usage. Of course, a network of mostly newly implemented terms in the end also consists of metaphors mutely appealing for an imaginative leap, but Whitehead is convinced that, of all methods, this approach is most likely to successfully convey to the reader the concepts of his philosophy: Understanding of metaphysical structures emerges from a network of newly created terms and notions which, on an abstract level, convey a general meaning without being impaired by connotations to common everyday experiences.

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[18] PR, 234.

3. Propositions and symbolism

If we look at the *Principia Mathematica* as a starting point of Whitehead's (later to become) philosophical career, we note that he was confronted early with thoughts about the nature of language. Indeed, Bertrand Russell's seminal essay "On Denoting", having emphatically been called "one of the founding documents of analytic philosophy",[19] is a direct result of his earlier work in the *Principia*.[20] Whitehead must have been familiar with the controversy Russell carried on with the positions of Frege and Meinong. Some phrases originally used as technical terms in mathematics and subsequently employed by Russell, for example "proposition", appear in Whitehead's writings about 20 years afterwards as well.[21] Whitehead's silence on this discussion, contrasted with his own very different approach two decades later, suggests that he did not consider the way Frege, Meinong and Russell approached the problem effective. His own implementation of the term "proposition" interestingly asserts from the very start that "[u]nfortunately theories, under their name of 'propositions,' have been handed over to logicians, who have countenanced the doctrine that their one function is to be judged as to their truth or falsehood", whereas Whitehead insists that the main objective of propositions is to be a "lure for feeling" (PR, 184 f.). The concept of distinguishing between the denotation and connotation of a term–having nowadays accrued a broader meaning spanning from analytic philosophy to semantics – does not touch on what Whitehead believes to be central qualities of language. Understanding the purpose of language as enumerating the logical sets of properties a word or phrase possesses goes against Whitehead's basic philosophical convictions. There are no distinct qualities that are simply added up to give a final result of what the overall facts "are". Instead of beginning with clear, isolated impressions, we initially perceive the world in its entirety, only dimly distinguishing and discerning the vague, massive background of experience in few and obvious facts. Whitehead's own wording in a letter to Russell has been cited before: "You think the world is what it looks like in fine weather and noon-day; I think it is what it seems like in the early morning

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[19] Linsky (2005), book cover.
[20] Wahl (1993), 71.
[21] It is difficult to define the usage of the term "proposition" in Whitehead's philosophy precisely. He almost exclusively uses the term in *Process and Reality*, but it is probable that certain concepts of his philosophy implemented in other works, such as the theory of symbolic experience in *Symbolism. Its Meaning and Effect*, seem to represent the same concept in the guise of a different term. For further discussion on this matter see Berve (2014).

when one first wakes from deep sleep."[22] Clear thoughts are the highly
symbolic and interpretive results of the higher phases of experience, and
language as well, in every instance of its usage, is the result of a high-grade
abstraction from the initial generality of experience. If a concept of
metaphysics starts from the concrete facts, perceived in the generality of
initial experience, and endeavours to explain the abstract in continuous
recourse to this aboriginal generality of feeling,[23] it is obvious that, as
already quoted, "[w]ords and phrases must be stretched towards a generality
foreign to their ordinary usage." (PR, 4). Thus, philosophical language has
to operate between the two extremes of aboriginal generality of feeling,
which it has to start from, and the specific terminology of exact definition,
which allows for abstract systematization. His method of philosophy and
the nature of language, in the eyes of Whitehead, are quite akin and mutually
complement each other:

> Systematization is the criticism of generality by methods derived from the
> specialism of science. It presupposes a closed group of primary ideas. In
> another aspect philosophy is the entertainment of notions of large, adequate
> generality. […] One characteristic of the primary mode of conscious
> experience is its fusion of a large generality with an insistent particularity.
> There is a lack of precise analysis in the characterization of the particularities
> of experience. It is not true that the characterization of individual experience
> by qualitative notions commences with any detailed analysis of such quality.
> The basis of our primary consciousness of quality is large generality. […]
> Language is always relapsing into the generality of this intermediate stage
> between animal habit and learned precision. It is always degenerating into
> philosophic generality, under the guise of words capable of more precise
> use. Such a lapse is uneducated, because it expresses the obvious. And yet,
> it is philosophic; because the obvious embodies the permanent importance
> of variable detail. (MT, 3 ff.)

In this passage, Whitehead shifts his focus from language to
consciousness and then further to philosophical method. It is obvious that
the notion of "generality", for example, serves as a description of qualities
of all these areas, language, consciousness and philosophical method at the
same time. It would be necessary to compare Whitehead's theory of
language to his theory of consciousness in greater detail to obtain a
comprehensive conclusion, but what can already be seen is the way
Whitehead compares the structures of different modes of experience with
each other in the above passage. Language is the domain in which diverse

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[22] Russell (1956), 41.
[23] See PR, 20.

fields of experience can be compared in the easiest way possible. It does not come as a surprise that Whitehead gives his most thorough description of structure and function of language within his theory of symbolism.[24]

It is difficult to conceive of Whitehead's philosophy as a theory based on symbolism.[25] However, he has a thorough concept of symbolism, which covers not only language, but strives for universal significance. He simply chooses the example of language, both in the explications of symbolism in SME and PR,[26] to demonstrate his concept of symbolic reference in the most obvious way. For Whitehead, symbolic reference is explained as the expression of one field of experience with respect to another field of experience.[27] When he goes on to suggest that symbolic reference usually involves two different modes of experience, the mode of causal efficacy and the mode of presentational immediacy,[28] Whitehead focuses his concept of symbolism mainly on the basic level of our human experience. The shallow, but clear and distinct perception in the mode of presentational immediacy is complemented by the vague, massive perception of the general background of our experience. Language, if it wants to describe our human experience adequately, has to relate to both of these modes of experience. The small area of clear, analytical thought operating with specific terminology has to be seen in reference to the vast area of broad everyday-experiences which can be addressed successfully in common speech and allow for everybody to arrive at their own pragmatic reasoning. In the eyes of Whitehead, it is the interplay of these two modes of presentation that philosophical language has to perform to be successful.

4. Philosophy as dialogue

Whitehead's main works differ with regard to their aims, the objectives discussed and the network of terms utilised, but they have an obvious similarity in their form of expression: Every book Whitehead published is conceived as an analysis consistent in style and thought that gives the impression of a continuous lecture.[29] In the tradition of modern philosophy,

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[24] The most extensive examination of symbolism and of language as a mode of symbolic reference takes place in SME, but the explanation of language is replicated almost identically in the final section of his chapter on "Symbolic Reference" in PR (p.180 ff.).

[25] Michael Hampe seems to take this view; see Hampe (1998), 182.

[26] See SME 10 ff., PR, 180 ff.

[27] See SME 7 f.

[28] See SME, 13 ff., 30 ff.

[29] Many works are indeed the result of lectures Whitehead delivered in Harvard and

this is nothing exceptional; philosophical concepts almost always present themselves as cohesive analyses. But Whitehead's attitude towards such thought structures is sceptical. As a decisively formative experience he frequently brings up the change of science during the time of his own academic career in Cambridge.[30] If it was possible to shake the certainty of the belief in Newton's physics, would it not be necessary for every philosophical concept with the claim of timeless validity to be designed flexible enough to be applicable to a totally changed environment? Whitehead regards the certainty of having formulated an eternal truth with utmost suspicion; he transfers the experience of his scientific career to his occupation as philosopher. His ideal of philosophic discourse is not a crystal clear presentation of some particular concept but an adequate interpretation of one's own experiences in all nuances; and to Whitehead, the best form of expression of this ideal seems to be the discussion of different points of view. The best example for this approach is Plato's oeuvre of dialogues. Therefore, subsequent to the description of his experience of the transiency of Newton's system of physics he alludes to Plato as an example for the type of philosopher who understands his task as the flexible presentation of different points of view:

> If you will let your mind run over his *Dialogues* – excepting the *Laws*, which, though they contain admirable matter, show him in his old age when his ideas have begun to harden – you will remember that when the Dialogue, whichever one it is, is ended, nothing is finally settled. Everybody has had his say, the subject has been examined from many sides, some of the aspects are more persuasive then others, but it is erroneous to identify Plato entirely with one of them. He is passing us around through various points of view, knowing that each of them has, more or less, some truth in it, but no single one the whole truth. The final effect of this on a receptive and flexible mind is about right; we are left with a fair working knowledge which we must then learn to apply for ourselves. Nothing is entirely true, but there is some truth in each aspect. That, if we understood ourselves better, is about the way we do deal with experience, unless we begin to dogmatize – when we immediately get into trouble. We do fairly well with half-truths so long as

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other universities. The most famous example certainly is *Process and Reality*, which developed from the public *Gifford Lectures*.

[30] See Price (1954), 302 and 346 f. The important point for Whitehead is not the fact that the sciences evolve, but the erroneous conviction within physics to be able to explain all phenomena with Newton's model of physics. The fact that established and generally accepted doctrinal systems can be raised to question by new insights is mentioned by Whitehead in several places as the most defining experience for his understanding of science.

we remember that they *are* half-truths.[31]

In Whitehead's mind, the medium of language leaves no other ideal to philosophy than the dialogue: "Mathematics must be studied; philosophy must be discussed."[32] Indeed, Whitehead's intense occupation with philosophy began in the debating society of the "Cambridge Apostels", in an environment that at least approximated the ideal of knowledge acquisition by way of discourse. He was very appreciative of the professional environment at Cambridge, which was shaped by the spirit of discussion he regarded as formative for his own academic career: He consciously compares the students' habit to debate a plethora of topics with Plato's dialogues and assumes that the mode of these discussions would have met with Plato's approval.[33] Nevertheless, he composes his own cosmology in the style of lectures. Does this manner of presentation contradict his own ideal of the philosophical approach or is there an element of mediation between his own basic persuasions and the literary style of his philosophical system?[34]

In Whitehead's understanding, the final form of expression of his philosophical concept is the result of his analysis of Plato's dialogue form. While the appearance of his philosophical works suggests a solidified concept of presentation, the time of philosophical activity within the university system before he started publishing philosophical writings should be recognised as well. Whitehead wrote his philosophy as a seasoned scientist, after a long and successful career as a mathematician and physician. The philosophy of organism is a late work, and its form of presentation already is the result of a long and arduous examination on his part with the necessities and the presentation of complex thoughts. As early as in 1922, in *The Principle of Relativity* – before his main philosophical works –, he mentions the circumstances that influenced him in the choice of his mode of presentation:

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[31] Price (1954), 302. For similar remarks about Plato see *ibid*. 345. Interestingly, *Arthur H. Jentz Jr.* has attempted to write an introduction into Whitehead's thought based on a fictitious series of dialogues between himself and Whitehead which obviously follows the structure of Plato's dialogues.

[32] *Ibid*., 329.

[33] ESP, 10.

[34] One point of view of Whitehead scholarship conceives of Whitehead as the tragic case of an author whose style is opposed to his ideal of philosophy. Indeed, the apodeictic phrasing which partially besets his works can only with difficulties be conciliated with his claim of subtle consideration of a certain problem within the framework of the overall context. Also see Lotter (1996), 21.

> The custom of modern presentations of science, and my own diffidence of
> success in the art of managing a dialogue, have led me to adopt the modified
> form of lectures in which the audiences – real audiences, either in America,
> Edinburgh or South Kensington – are to be regarded as silent interlocutors
> demanding explanation of the various aspects of the theory. (TPR, vii)

In this passage, the dialogue form is, in functional interaction with the
contemporary modes of scientific analysis, presented as the starting point of
Whitehead's own reflections upon the mode of analysis a scientific lecture
has to assume. It has to be noted explicitly that the notion of a dialogue goes
deeper than the participation of real "silent interlocutors" in a lecture. In a
more fundamental sense, the ideal of dialogue Whitehead derives from Plato
describes an ineluctable multiperspectivity in every philosophical discourse:
The certainty of every phrasing of thought can only be partial, while many
facets of the argument remain open for profound dissent based on a
different, yet entirely valid perspective which stems from a different
background of experience. The gap between the different perspectives
cannot be bridged entirely, since the imaginative leap relies not on sharp-
cut arguments but on intuition. With Plato, Whitehead believes that the best
attainable result in a conflict of argument is a mediation between different
perspectives. Therefore, the main reason why he keeps returning to Plato's
philosophy is the huge flexibility he sees in the multiperspectivity that
Plato's mode of presentation allows for. It probably is this multiperspectivity
that makes Whitehead describe European philosophy as in its core
derivative from Plato: "The safest general characterization of the European
philosophical tradition is that it consists of a series of footnotes to Plato.
[…] Thus in one sense by stating my belief that the train of thought in these
lectures is Platonic, I am doing no more than expressing the hope that it falls
within the European tradition." (PR, 39). Whitehead conceives of every
European philosophical concept as partaking in a dialogue with tradition;
thus, philosophy itself can only be understood within the historical context
its perspective derives from. The terminology, topics and methods of every
philosophical concept stem from its scientific and cultural background,
which, is always the genuine result of a multiperspectivity of opinions and
theories. Whitehead's concept of philosophy as a dialogue and the emphasis
he places on tradition remind of Hans-Georg Gadamer's concept of
hermeneutics: While Gadamer conceives of the phenomenon of dialogue as
present in every act of understanding and thereby defines understanding as
a mediation between different perspectives, he also maintains that there is
an indissoluble distance between different perspectives. Thus, the
multiperspectivity leading to the necessity of dialogue is embedded in a

historicality of understanding:[35] the best we can hope for in a philosophical debate is that, after "everybody has had his say", the different perspectives can be reconciled in acknowledging the limits of the understanding of eternal truths.

For these reasons, Whitehead's view about the Platonic myth, which is employed in situations where other methods of investigation reach the limits of their practicality, is fundamentally positive: The mode of speaking in myths allows the imagination to wander freely instead of remaining confined to the definitory exactness of specialised terminology. This again showcases Whitehead's endeavour to reflect from every methodic investigation to the vague penumbral background of our experience and to recognise the limits of every pattern of explanation utilised in exact systematisations. In this way, it is his ideal to connect the precision of definition within a terminologically precise analysis with the openness of a multiperspectival dialogue. The insight that both components are needed for a balanced cosmology can still be discerned in the final mode of presentation that Whitehead chose.

Whitehead composes the metaphysical concept of the philosophy of organism in his own style of presentation. Although his texts could formally be classified as monologic presentations, their structure preserves allusions to the multiperspectival ideal of their author.[36] Instead of a stringent analysis, an organic text body is utilised, in which different topics are taken up again and again in slightly altered circumstances. Repetitions and partly overlapping explanations regard different aspects from varying points of view and sometimes make it difficult for the reader to understand the internal structure of the text.

5. Conclusion

The relationship between terminology and common speech in Whitehead's philosophy is hard to define. It is obvious that Whitehead thoroughly reflected the conditions imposed by language upon the potential of

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[35] See Gadamer (1975), 275 ff.

[36] It is hardly possible to speak of a dominant perspective which could be indentified in Whitehead's different philosophical writings. Rather, the specific terminology and the literary style of every book adjust to the object of the investigation. In *Process and Reality*, a fine-meshed network of terms is employed to explain the general framework of Whitehead's metaphysical concept in an abstract explanation. In *Adventures of Ideas*, he refrains from utilising a rigid network of specific terminology; the examination of seven Platonic notions is less abstract, but also remains more vague.

philosophy, and it might even be suggested that his own academic progress, which led an accomplished mathematician into the field of philosophy, can be understood as a progress in realising the specific methodical limitations of different academic disciplines. For philosophy, the limitation mainly consists in the nature of language.

While it is true that every discipline of science has to cope with these limitations, they are relevant for philosophy in a more fundamental way: Not only does the ineluctable ambivalence of specific terminology obfuscate understanding but the very nature of philosophy does obstruct the limitation of language to specific terminology. As there are no axiomatic assumptions to start from, the continual reference to the aboriginal assemblage of our experience in the form of common sense and pragmatic judgment precedes any attempts to frame a coherent terminology. Thus, common speech with its major ambivalence and its connotative character is a necessary tool to provide the context outside of the small focus of analysis which precision of terminology and logic of argument constitute. If, for example, while we discuss the nature of logical judgments, the term "judgment" makes us connote images and emotions of a proper court of law, this connotation, to some degree, *is* relevant for the proceeding analysis. A refusal to include the vague, penumbral background of our subconscious experience would, in the eyes of Whitehead, result in dogmatism and constitute an example of the "fallacy of misplaced concreteness".[37]

It is exactly the balance between the penumbral background of experience, including individual perspectives and valuations, and the exactness of terminology that characterizes Whitehead's philosophy. He conceives of common speech as a corollary of common sense, which is to say: In the same way any logical investigation is embedded in common sense, specific terminology is embedded in common speech and depends on an imaginative understanding that precedes every terminological definition. When Whitehead perceives similarities between philosophy and poetry, he does not simply limit the significance of a system of well-defined terminology. Rather, he extends the rationality of philosophy to include insights of common experience, as expressed in a broad concept of language that allows for philosophy on the one hand to rely on systems of terminology and on the other hand to ally itself to poetry. Limits of insight and the ineluctable multiperspectivity of every complex explanation thwart any attempt to phrase final truths, but invite to ever new adventures of understanding. The terminology of Whitehead's philosophy is, therefore,

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[37] Elizabeth Kraus coins the beautiful metaphor of the "Fallacy of the Perfect Dictionary" (see Kraus (1998), 6) to describe the fallacy of inadequately precise language from the perspective of Whitehead's philosophical method.

esoteric in its usage of unclaimed notions and displays an unconventional relation to the philosophical tradition. It is also the consistent result of a highly complex contemplation about the capabilities of language, philosophy and understanding.

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THE CONCEPTS OF "CREATION" IN THE LATE PHILOSOPHY OF A. N. WHITEHEAD

MICHEL WEBER

Although the concept of creation *per se* belongs to the religious sphere of revelation and faith, it has received a specific treatment within the philosophical project, which has factually (if not necessarily) acted as an interface. The purpose of this paper is to sketch the radical ontological renewal of this question that has been attempted by the late Alfred North Whitehead (1861–1947). More precisely, it lingers on *Process and Reality*'s categoreal scheme, acme of his Harvard epoch (1924–1937).[1]

In order to display the development of the idea of creation in Whitehead's development, five steps are expedient.

First, our premises are specified with the help of two concepts: change *qua* trans-formation or morphogenesis and change *qua* creation or hylogenesis. The former is a *continuist* concept that sees Nature's unrest as a "perpetual transition into novelty." Change is morphological: new patterns are made of old ones. With the strong concept, there cannot be a continuous stream of events progressively disclosing new cosmic features. Genuine novelty can only *enter* the World in a disruptive, bud-like manner. The unexpected breaks within the fabric of the universe.

Second, the paper sketches the concept of "creation" present in two earlier Harvard works, *Science and the Modern World* and *Religion in the Making*, that basically revamp Plato's *Timaeus* by introducing the actual occasion/eternal object couple and a "God" of sorts.

Third, it proposes a sharp analysis of the concept of "creativity," core of the "Category of the Ultimate," itself the focal point of *Process and Reality*.

Fourth, we see how *Adventures of Ideas* proposes a *tertium quid* offering, to a certain extent, the advantages of Plato's intuitive solution and of Whitehead's late concepts: a "creative creation" of sorts.

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Fifth, we unfold the implications of the "co-creation" of the World and God that is articulated in one of Whitehead's last article, "Immortality."

1. Change

Everyday life reveals two fundamental aspects of experience: change (championed, e.g., by Heraclitus and Shelley) and persistence (prized, e.g., by Parmenides and Wordsworth). According to some, activity, novelty, flux and accident constitute the ultimate reality; according to others, passivity, persistence and repetition are fundamental.

Of all philosophical puzzles, the question of change is perhaps the deepest because it has ramifications in all major disciplines, starting of course with ontology and its Zenonian vision, but spreading to ethics and the question of liberty, and to psychotherapy and the very possibility of curing ailments. As I have argued elsewhere, there has constantly been a synergy between ontology and psychology: there is always, *volens nolens*, a correlation between the ontological and the psychological leading concepts, they do not simply fit, match each other (Weber 2012).

The ontological non-dualism enforced by process thought leads straight to the relativisation, i.e., not the destruction, of Aristotelian substantialism. Whitehead's own goal is however not to revoke the category of substance, but to reconstruct its limited applicability from an eventful perspective. It basically amounts to explain the mesocosmic validity of the concept of substance with the help of societies (or trajectories) of "bud-like" events. Interestingly enough, the process standpoint can be characterised as the very one rejected point-blank as unscientific by Aristotle and Plato: the event or accident (*symbebekos*) comes first, essences, substances and the like are secondary. We are looking for an *accidental* science, a science of change, becoming, instability, process.

Process is a very old concept that can take two main guises: weak (trans-formative) and strong (creative). Needless to say, we take here a very broad perspective, seeking simplicity but distrusting it. Ours is a cautious proposal because it should be remembered that "most of the muddles of philosophy are […] due to using a language which is developed from one point of view to express a doctrine based upon entirely alien concepts."[2]

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[2] Var. auct. 1932, 27. "Seek simplicity and distrust it." (CN, 163.)

2. Change: The weak concept

The weak concept – that already expresses itself in terms of event, flux, instability and the like – puts becoming *before* being. In other words, "being" is understood as the surface effect of ever-changing underlying relationships. This conceptualisation may occur solely at the phenomenological level, i.e., without involving ontological problematisation. Whitehead's "London period" is a good example of such a perspective. It is a *continuist* concept that sees Nature's unrest as a "perpetual transition into novelty." Change is morphological: new patterns are continuously made of old ones.

According to Greek philosopher-scientists, change *exhausts* itself in (can be understood only by) *kinêsis* and morphogenesis; *hylogenesis* is properly unthinkable. The coming to be of new mundane items is understood as the birth of "new" forms, not of new matter simply because the cosmos is "closed."

To put things simply and in Aristotelian terms,[3] change ("metabolê") was conceptualised in Greece either as movement ("kinêsis") or as generation/corruption (coming into and the going out of being: "genesis kai phtora"). On the one hand, movement (i.e., the change of position in space, be it quantitative change or qualitative change) presupposed the essential continuity of the mobile as *subjectum*. On the other, generation/corruption, the most fundamental mode of change, was understood only – and this is striking – as morphogenesis, i.e., as continuous genesis of new forms from old ones. In other words, this trans-formation or meta-morphosis could not allow the irruption in the world of totally new features. The reason for this is quite simple: change occurs within a *cosmos*, a pre-given ordered Totality. No cosmic growth is thinkable, full stop.

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[3] The difficulty of the argument lies of course in the necessity of giving conceptual tags to name the general Greek state of mind. Besides, Aristotle is not that straightforward in the usage he makes of his own categories – but he makes clear that a subject always persists amid changes. Change is either generation/corruption ("genesis kai phtora") or one of the forms of "kinêsis": quantity change (growth and corruption: "auxesis and phtisis"), quality change (alteration: "alloiösis") and change of place (locomotion: "phora"). The place ("topos") in accordance with which the phora occurs is not a neutral space, but a Geocentric and spatially hierarchised one.

3. Change: The strong concept

With the strong concept, not only is the question raised at the ontological level, but it is now bolder: there cannot be a continuous stream of events progressively disclosing new cosmic features. So *Process and Reality*'s (1929) "creative advance" claims that genuine novelty can only *enter* the World in a disruptive, bud-like manner. Its point is to secure true becoming, to make the emergence of the unexpected possible within the fabric of the universe. "Process and individuality require each other" (MT, 97): change is creation or, better, creativity.

According to Whitehead's processism, "nature is never complete," "it is always passing beyond itself." (PR, 289). More precisely, the British philosopher *transcends* the binomial *hyle/morphe* with a strong processual ontology adequate to the "open" chaosmos. Whitehead's organicism argues for a *reformed* hylogenesis. Actually, to claim that Whitehead understands change – kinetic or morphogenetic – as hylogenetic is not radical enough since substantialistic hylemorphism is completely dismissed. When Whitehead claims that the Aristotelian notion of the "procession of forms" has to be replaced by the notion of the "forms of process," he makes it clear that hylemorphism has to go.[4] There is no more movement, morphogenesis or hylogenesis,[5] solely a never-ending *creative* re-creation of the World. Whitehead does not speak anymore of a continuous change taking place *within* the World, but of a discontinuous change *of* the World, of the birth of a new event in the World – actually at the edges of the World –, which is thereby transformed. Technically speaking, a spatio-temporal trajectory is now the abstraction of a hypertrajectory in the extensive continuum.[6] In Greece everything changes

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[4] MT, 140.

[5] PR, 73, 35, 68, 79.

[6] The status of the extensive continuum is shaped in Process and Reality Part IV. It is essential to differentiate the extensive continuum and the extensive connection. The relation of extensive connection, operating between regions (while the "extensive abstraction" of his earlier works was operational among a continuum of events), spells how extension is both required by the processes of concrescence and of transition, and derivative from them. It is, so to speak, both ex ante and ex post. Extension is required in so far as extensive connection provides a general type of relatedness that secures the possibility of the solidarity between past, present and future actual entities, i.e., in so far as it expresses the solidarity of all possible standpoints. For instance, the concrescence presupposes its basic region. This ultimate relationship is "sui generis, and cannot be defined or explained. But its formal properties can be stated. […] Some of the simpler characteristics of extensive connection, as here stated, are probably such ultimate metaphysical

and nothing becomes; with Whitehead, everything becomes and nothing changes. Destiny has a new *fatum*.

As a result, one has to wonder if, by definition, when Heraclitus processualised his cosmos, did he not do so only partially in the sense that he was concerned only with kinetic and morphogenetic processes? Of course, one could maintain that Zeno's paradoxes, Plato's *exaiphnes*, Albertus Magnus's *fluxus*[7] and the Leibnizian *fulguratio*[8] testify to Greek and Medieval prescience of the aporia that is a closed world. A world in which solely kinetic and morphogenetic changes systematise flux is absurd (epistemologically as well as existentially). But, as we will see, one had to wait for Whitehead to show the power of the concept of percolation for understanding becoming. We choose to speak of percolation basically in order (i) to give a more intuitive name to the "epochal theory of time,"[9]

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necessities." (PR, 288). These characteristics lead straight to a contiguist worldview. One has to insist as well on the difference existing between extension, as it is defined here (very few properties, no metrics), and the common-sensical, or even scientific, notions of spatial and temporal extension, that are a contingent by-product belonging to our cosmic epoch. (Cf. the multiple space-time systems introduced by An Enquiry Concerning the Principles of Natural Knowledge.) Extension is derivative in so far as it manifests the actual interconnection in the extensive continuum. The ex post occupied (or proper) region corresponds to the ex ante "basic region."

7 Albertus Magnus (1200–1280) sought to reconcile Plotinus's emanation (procession: "proodos") and Rome's "creatio ex nihilo" with his metaphysics of flowing or "fluxus." (Albert le Grand (2013)).

8 See esp. Lorenz' speculations: "When one attemps to describe the great process of organic growth, one finds oneself hampered by the fact that the language of culture was born at a time when ontogeny, i.e., the evolution of the individual creature, was the only form of development known. Words like development and evolution have the etymological connotation of the unfolding of something that was already there in a compressed or confined form, like the flower in the bud, or the chicken in the egg. For ontogenic processes of this kind such words are perfectly suitable. But they are lamentably inadequate when one attempts to define the nature of an organic creative process through which something entirely new comes into existence, something that was simply not there before. Theistic philosophers and mystics of the Middle Ages coined the term fulguratio, "flash of lightning," to denote the act of creation, thereby conveying the notion of a sudden intervention from above, from God." (Konrad Zacharias Lorenz, Behind the mirror: a search for a natural history of human knowledge. Transl. by Ronald Taylor [Die Rückseite des Spiegels. Versuch einer Naturgeschichte menschlichen Erkennens, Munich-Zürich, Piper, 1973], London, Methuen & Co., 1977, p. 29.)

9 See PR, 68, 106, 125, 256, 280, 283 (although Whitehead toys with the proximity between the epochal theory and the cosmic epoch – the former being the "original sense" of the later –, they are distinct).

(ii) to suggest the synergy that is often missed between Whitehead's concepts of concrescence and transition and (iii) to highlight that the innovatory process occurs at the edges of the World/God contiguum. This is specified in section 3.

4. Creation

Whitehead's first conceptualisation of the relationship contrasting (i.e., uniting and opposing) God and the World is pretty much Plato's. The Preface of *Religion in the Making* (his Lowell Lectures of 1926) highlights that *Science and the Modern World* (constituted mainly of the Lowell Lectures of 1925) and *Religion in the Making* constitute two independent, yet cross-elucidating works. In both we find the same Aristotelian overtone in a Platonic landscape: the discussion of the concept of God occurs in a dispassionate context, i.e., independently of ethical and religious concerns.

This is especially true of *Science and the Modern World*, which has no direct roots in these spheres and does not develop such consequences. Whitehead's goal is to obtain a speculative frame apt to understand how relative permanence and genuine flux, potentiality and actuality, uniformity and contingence, are interrelated. His founding intuition is twofold: on the one hand, the "ontological priority" of flux over permanence; on the other, the grounding of actuality in a "sea" of general potentiality depicted with the help of the quasi-Platonic notion of eternal object. His analysis is transcendental in the sense that he is looking for the conditions of possibility of the transition from the possible to the actual, from being to becoming, from the many to the one. Since he also understands actualisation as a process of restriction (or selection) of potentialities,[10] a threefold "principle of limitation" is introduced: there is a limitation among the available eternal objects (in a sense pure potentials are ontologically prior); there is a limitation imposed by past events (what has happened gives the context for what will happen); and there is general restriction due to the cosmic epoch in question (the laws, or habits, of nature do matter). This "limitation of antecedent selection"[11] or "triple envisagement," strictly immanent to the World (i.e., performed by its actualities), constitutes the conditions of *possibility* of any mundane occurrence.

However, two problems are still pending: value and order. On the one hand, everything has indeed, by virtue of its very *limited* existence, some value – but there cannot be value without "antecedent standards of

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10 SMW, 159 and 178.
11 *Ibid*., 177.

value."[12] On the other hand, the limitation of antecedent selection does not provide the conditions of *compossibility* of events (the problem is here, as we shall soon see, that the coming into existence of new events necessarily occurs independently of each other). Hence the introduction of a "Principle of Concretion" that grounds the antecedent standards as well as the active compossibilisation required. Although Whitehead called it "God," the Principle works as a bare servo-mechanism, distinct from the World, but operating in it.

Religion in the Making resumes the systematic task by naming the three "formative elements" implicit in *Science and the Modern World*: creativity or *substantial activity*, eternal objects or *pure possibilities*, and God or the *Principle of Concretion*. With the expression of these conditions of (com-)possibility of mundane eventfulness, the emphasis falls on the Principle of Concretion, factually obliterating the principle of limitation and thereby down valuing the strictly speaking mundane inner activity. All this makes it clear that the *Timaeus*' categories were still haunting Whitehead's mind.

Further analysis would of course be needed to do justice to both Plato and Whitehead, but we have time only for three quick remarks: one, the status of the eternal objects, however tricky, cannot be reduced to the one Plato confers to his Ideas – the eternal objects, to say the least, are bare abstractions localised in God's primordial nature – ; two, the proper elucidation of the formative elements interconnections occurs only with the organic categories of *Process and Reality*; three, we notice here a weak systematisation of change.

5. Creativity

If *creation* basically follows Plato's pattern of thought, *creativity* definitively bears Plotinus's ring. How and why did the shift happen?

Although *Process and Reality* (1929) constitutes Whitehead's most imposing work, undoubtedly the acme of his speculations, it was, and is still, badly welcomed and drastically misunderstood. Whitehead foresaw this – while finishing *Process and Reality* he wrote to his son North: "I do not expect a good reception from professional philosophers"[13] – and undoubtedly suffered from the trial. As a matter of fact, the Gifford Lectures were a debacle, and the book itself is usually fragmented in order to make it sizeable for hurried readers. What happens if one actually reads the book from cover to cover? The reader promptly realises that *Process*

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12 SMW, 178 that pushes forward the Kantian argument (see RM, 101 et passim).
13 See Lowe (1990), 252.

and Reality disrupts the early threefold Platonic framework by recentering its ontological speculations around the concept of "creativity:"

> In all philosophical theories there is an ultimate which is actual in virtue of its accidents. It is only then capable of characterization through its accidental embodiments, and apart from these accidents is devoid of actuality. In the philosophy of organism this ultimate is termed "creativity;" and God is its primordial, nontemporal accident (PR, 7).

Let us see how *Process and Reality*'s categoreal scheme redistributes the roles in the creative dialectic uniting the World and the Formative Elements. The enunciation of the "Category of the Ultimate" rebalances Whitehead's ontology: neither the World nor God are worthy of the term "Ultimate." Part V is exceptionally clear in that regard.

All those who have tried to speak, to write or to represent artistically their experience, or their a priori understanding, of the Ultimate have been confronted with deep semantic issues. How does one communicate about something that does not belong to the normal state of consciousness? *De facto*, if not *de jure*, the philosopher resorts to the polysemiality of words. In *Process and Reality*'s case, a proper understanding of Whitehead's will-to-say is impossible without the distinction of the various layers of meaning of the concept of creativity and the subsequent reconstruction of their dynamic interlocking.

Qua ultimate, creativity is all-embracing, omnipresent; nothing escapes its grip – and the power of suggestiveness of the concept lies precisely in the tight synergy created by its polychromatic facets. One can organise these according to two main axes. First of all, creativity is *dipneumonous*: God and the World constitute the two specular loci of the creative rhythm; they are the "contrasted opposites"[14] in unison with each other's becoming. Second of all, creativity is *bifunctional*: on the one hand, it is *agent*, fundamental inclination; on the other, it is *reticulated*, partial goals, i.e., instantiated (in actualities-subject) or characterised (in actualities-object). Before specifying these facets, let us already cautiously remark that neither creativity nor its factors function *in addition* to the actual entities – Whitehead's "windowed monads" –, but *through* the contrasted opposites, whose osmotic co-belonging and symmetric bifunctionality it ensures. It is

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14 "[…] It is as true to say that God creates the World, as that the World creates God. God and the World are the contrasted opposites in terms of which Creativity achieves its supreme task of transforming disjoined multiplicity, with its diversities in opposition, into concrescent unity, with its diversities in contrast." (PR, 348)

only the intertwining of these two threads that can approximate Whitehead's intuition.

To claim that creativity is dipneumonous aims at underlining three complementary points. One, although there are significant differences between the "World" and "God," there is neither ontological primacy nor bifurcation between them. Two, Whitehead *does not* replace the strict hierarchy classical theism exploits by a panentheism (this is Hartshorne's use of Whitehead to postmodernise Plato). Three, we have here the first meaning of the concept of contiguism: God and World are so to speak shoulder to shoulder in the extensive continuum, they conspire together at the emergence of new actualities.

The bifunctionality creativity embodies spells itself in a very subtle twofold way.

Qua agent, it names the spontaneity that dwells in the Whole. It is, so to speak, a principle of unrest pushed to the hilt: not only does it account for the perpetual flux of "things," the constant renewal of features Nature makes us familiar with, but it also designates the radical novelty that defines genuine eventfulness. To differentiate bare repetition from the bursting forth of the unprecedented, one can speak of novation versus innovation. Creative advance is the result of the mutual support of these two fundamental processes. Technically speaking, Whitehead equates this principle of novation with the (mundane) principle of limitation; and the principle of innovation with the (divine) Principle of Concretion. In other words, factually contradicting his own intuition – creativity as rebalanced creation –, he ended up arguing that "innovation" comes solely and directly from God. This complex interpretative issue will be treated here with the help of *Process and Reality*'s concept of "subjective initial aim" that is introduced below; it is time indeed to present the ontological atomism shaping the creative reticulum.

Qua reticulated, creativity is either instantiated or characterised.

Actual entities-subject are the "Instances" of creativity. This is the metaphysical question par excellence: what about the coming into existence of events themselves, i.e., how do totally new mundane (or divine) features occur? Following mainly Zeno, Peirce, and James (as well as the nascent quantum mechanics), Whitehead argues that an atomic eventful ontology is required to do justice to the facts of experience (understood in a radically empiricist way). Creative advance asks for the possibility of *innovative* occurrences within the novative – or continuous – cosmic structure. These occurrences require some sort of "elbow-room" *and* generate discontinuity. The coming into existence of a new actuality happens in a bud-manner for two more reasons, both linked with this

innovatory dimension: it involves an *atemporal process* framed by a *free decision*. The next section will further explore this durational existence; suffice it to say for now that the actuality-subject is a drop of subjective experience.

But the subjectivity involved here has to be taken *cum grano sali*: by virtue of the "reformed subjectivist principle," Whitehead allows himself (simply because we have no other choice, as he repeatedly says) to generalise the main characteristics of his own experience to all possible experiences. It has been opportunely argued that his system is a *panexperientialism*: everything that *exists* or *is* is constituted by experiences. Let us underline that this speculative insight has nothing to do with any sort of panpsychism: to be subject is *to experience* in the deep, primordial sense of the word, i.e., to enjoy the immediacy of one's own prehensions of the world, not to be *animated* in the etymological sense. A twin distinction needs to be introduced: every actual entity subject can be analysed in two poles, the physical pole – that names the causal impact on the past on the actuality in the making (Whitehead says "in concrescence") – and the mental pole – that names the moment of self-determination of the concrescence. When analysed, the bursting forth of a new existent displays thus, on the one hand, the influence of its past world and of God's "initial subjective aim;" and, on the other, an auto-nomic position of itself for itself ("immanent decision") and for others ("transcendent decision"). The first decision determines what the actuality prehends; the second determines how it "plans" to influence its successors.

Now, from the perspective of the World, the actuality-subject exists only during its concrescence when it has reached its synthetic goal, it topples into objectivity, i.e., loses the vivid immediacy that is its prehensive enjoyment. "Character" stands for actualities-object; they no longer "exist," but "are." To be object is to be experienced, to exert causal efficacy on actualities-subject. Actualities-object sediment in, so to speak, layers of reticular (or "ashy") creativity. However, this is not the end of the story. The vanishing of the actuality's emotional core has a twofold creative impact. On the one hand, as we have just seen it, there is an *objective* immortality embodying the power of determination of the past. On the other hand, there is a *subjective* immortality that requires for its proper introduction a quick presentation of the development of the concept of God in *Process and Reality*; it will act as an appropriate link with our concluding section on co-creation. Additionally, we have here the second meaning of the concept of contiguism: the continuous string of actual occasions leaves so to speak no room for interstices.

The concept of God receives in *Process and Reality* further specifications (actually already adumbrated in *Religion in the Making*) with the distinction of the *primordial nature* (a character of creativity) from the *consequent nature* of God (an instance of creativity). The primordial nature is the Principle of Concretion, i.e., of compossibilisation. Principle of unison operating through the deliverance of the initial subjective aim already evoked, it enables the existence of a cosmos housing the highest intensities of experience possible. The consequent nature acts as a Principle of Everlastingness: *qua* consequent, God saves the marrow of all mundane experiences by transmuting the enjoyment of the satisfied actualities into a harmony of subjective harmonies. In other words, God values the World, integrates the value of the World – *not* the World itself.

Process and Reality's creativity offers probably the best exemplification of the strong concept of change introduced in section 1. The historical roots of its argument can be found in Plotinian emanation from the divine (not from God).

6. Creative Creation

Although *Science and the Modern World* – and, to a lesser extent, *Religion in the Making* – were conceptually timid, simply because Whitehead had not yet thought his way to a coherent system as he did in *Process and Reality*, they were (and still are to a certain extent) well-sold books. The ill-success of *Process and Reality* seems to have suggested a renewal of the expository style and broad thematic concern of *Science and the Modern World*.

We have already evoked the Gifford's deep impact on the philosopher: the synthesis of a life's reflection[15] had been at best ignored and at worst denigrated. Certainly, the tragic death of his son must have left the unfortunate man disconsolate, but Russell's opinion, even springing from an insider's knowledge (especially since), is not entirely reliable…

Hence the following rather straighforward hypothesis: with *Adventures of Ideas* and *Modes of Thought*, Whitehead tried, in all humility, to renew the library success of his first philosophical works by adopting again a style less "categoreal style." Nobody in her right mind writes books unless she hopes to reach the widest possible public. Whereas *Science and the Modern World* and *Religion in the Making* were conceptually shy because his system was still looking for its coherence, *Adventures of Ideas* and

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[15] See PR xiv.

Modes of Thought are somewhat elusive because *Process and Reality* had demonstrated that the reader was not willing to dive point-blank into a full ontological renewal. The more straightforward sign of this is perhaps the place Plato takes again in *Adventures of Ideas*.

Adventures of Ideas proposes an elucidation of the vision (and sometimes of the main categories) of *Process and Reality* with the help of a vast picture of the major ideas haunting civilisations. We have here not only a philosophy of history insisting on the concept of persuasion, but also an assessment of the impact of the scientific worldview on European culture and a renewed exposition of the ontology of process.[16] According to the philosopher, a civilised society is to exhibit the qualities of Truth, Beauty, Adventure, Art, and Peace.

In *Science and the Modern World* and *Religion in the Making*, Plato's presence is strong but subliminal. When he is cited, it is mainly in reference to the mathematical realm of ideas. *Process and Reality* still refers to *Timaeus'* cosmology.[17] Its basic argument is twofold: yes, the philosophy of organism needs a realm of Forms; no, heavenly *perfection* is not possible because of (i) the dynamic bipolarity within God and (ii) the typology of eternal objects (see the distinction between the objective and the subjective species). There is a further reference to the "creation of a cosmic epoch,"[18] but, on the whole, Whitehead cautiously distances himself from Plato.[19]

Out of the *constant* reference to Plato that characterises *Adventures of Ideas*,[20] three important concepts crystallise: (i) the creation of the world *qua* "victory of persuasion over force;"[21] (ii) the definition of being as "power;"[22] and (iii) the appeal to the "superior metaphysical subtlety"[23] of the concept of *Receptacle*. Here lies the puzzling novelty: the concept of creativity – nothing less than the key to *Process and Reality* – is *very* discreet in *Adventures of Ideas*. Its sole occurrences[24] are rather intuitive, barely technical, whereas the Receptacle acquires an all-embracing speculative presence (as far as the writer knows, it does not occur anywhere else in the corpus).

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[16] For a detailed expansion of Whitehead, see Allan (1986) and Johnson (1952).
[17] See PR, xiv, 42, 82-83, 91, 93-96.
[18] *Ibid*., 96.
[19] *Ibid*., 39, 44.
[20] See AI, viii.
[21] *Ibid*., 25.
[22] *Ibid*., 120.
[23] *Ibid*., 122.
[24] PR, 177, 179, 212, 236-7.

The categoreal drift is accentuated in *Modes of Thought* (1938), which gathers together Whitehead's last lectures, spread over the years 1924–1938. Their main object is to bring to the fore the presuppositions and oversimplifications that underlie abstractions, whether they be everyday, commonsensical patterns of thought or elaborate scientific systematisations. Whitehead shows, with the help of the concepts of importance, interest, discrimination and perspective, that there is a continuous gradient from the infinite unity or connexity of all events to the individual, finite, selectiveness of enjoyment of conscious actualities. By the same token, he insists on the difference between intuition, thought, and language and contrasts the sheer, vibrant disclosure of stubborn facts with their symbolisation in science, philosophy, poetry and mysticism. Ideals can never mask the concrete, well placed abstractions. Although no references are made to the *Timaeus* or the Receptacle, there is a punctual emphasis on the Platonic intuition of the importance of the mathematical system[25] and a reminder that "not-being is a sort of being".[26] Interestingly enough, there are plenty of occurrences of the concept of "creation", but only two of "creativity". The issue of creativity is actually barely evoked, and when it is invoked it is only in purely general terms.[27]

In conclusion, it can be said that Whitehead's last books pull back on the conceptual and stylistic front. They remain important to grasp his overall vision precisely because it is very doubtful that he ever changed his mind on the ultimacy of creativity. But in these volumes he chose an easier path (actually quite an old-fashioned quasi-substantialistic one) to present his views and the subtlety of *Process and Reality* is lost. Perhaps that "creative creation" is a concept apt for depicting this hybrid: Whitehead does not agree with Plato's cosmology (as it is set out by A. E. Taylor) (see AI, 168), but he conveniently adopts its demiurgical *metaphors* to suggest his ademiurgical worldview. Following the entire Western tradition, he uses again transitive action to name immanent action.

7. Co-Creation

The result of our heuristic is so far mitigated: although it has been claimed that Whitehead's speculative goal is to realise a daring re-balancing of the World-God relationship, his technicalities still appear at times theistically biased, if not poiesis-oriented. There is, in other words, an internal tension even within *Process and Reality*: on the one hand, the book introduces

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[25] MT, 2, 76.
[26] *Ibid*., 53.
[27] *Ibid*., 117, 154.

categories possessing a hugely subversive (eventful) potential; on the other, it still endures the gravity of traditional (substantialistic) theism. In *Adventures of Ideas*, Whitehead claims: "Plato moves about amid a fragmentary system like a man dazed by his own penetration." (AI, 146-7). It might be the case that this applies, *mutatis mutandis*, to Whitehead himself.

"Autobiographical Notes", "Immortality", and "Mathematics and the Good", first published in the Schilpp volume devoted to *The Philosophy of Alfred North Whitehead* (1941 and reprinted in his 1947 *Essays in Science and Philosophy*), constitute his last major publications. All three articles make the same plea for relativism in *Process and Reality's* reformed sense of the term and for its direct correlates pattern and rhythm. They provide a first-rate account of Whitehead-the-spring, as Hocking has called him.[28] Almost independently of any *systematic* attempt to attain the highest generalities, we rediscover a philosopher, humble but determinate, bold and insightful – but reasonably so.

"Immortality" is of special interest since it pushes to the hilt the dipneumonous interpretation that is argued for in *Process and Reality*'s Part V. The Uni-verse is understood again as the interplay between two "Worlds," the World of Active Creativity and the World of Timeless Value. The former is the World of origination of patterns of assemblage that nevertheless develops "Enduring Personal Identity". The latter is timeless and immortal, but it nevertheless seeks "Realisation". In sum: neither finitude nor infinitude are self-supporting; fact and value require each other – and "exactness is a fake".[29]

Spelling this ontological *co-dependence* would require two things: the explicit operationalization of the principle of limitation within *Process and Reality*'s context; and the categorialisation of the initial aim delivered by the World to God. If we take seriously that not only God constitutes a necessary condition of the mundane existence, but, symmetrically, that the World itself plays an essential constitutive role in God's existence, we are led to four possible valences of the concept of initial subjective aim: God delivers an initial aim to each mundane actuality and to Itself; and the World delivers an initial aim to itself and to God as well.

Whitehead's theorisation of the deliverance of an initial aim by the World to the mundane concrescing entity (*Science and the Modern*

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[28] "He sometimes had notes, but, as I recall, seldom stuck to them; he gave the impression of a mind not repeating former results but winning anew the insights he had to convey – it was water from a living spring, not from a faucet." (Hocking (1963), 14).

[29] ESP, 96.

World's principle of limitation and *Process and Reality*'s transcendent decision) is contemporary of the theorisation of the initial aim delivered by God to the mundane concrescing entity (*Science and the Modern World*'s Principle of Concretion and *Process and Reality*'s initial subjective aim per se). When *Process and Reality* articulates the two divine natures, it further argues that the completeness of the primordial nature grants the perfection of the subjective aim presiding to the becoming of the consequent nature. The only unfulfilled valence is thus the deliverance of an initial aim by the World to God. In the same way that the principles of limitation and of Concretion work hand by hand in the World, we have to look for the co-principle of the Principle of Concretion with regard to God's concrescence. If it is expedient to use a derivative meaning of the concept of transcendent decision *qua* principle of limitation, the question of the *modus operandi* remains, all the more so since the basic difference between the World and God – the World is primordially many (but one), whereas God primordially one (but many) – affects the issue: it goes without saying that God's primordial oneness makes the understanding of the coherent deliverance of initial aims very straightforward. On the top of that, it is precisely because the principle of limitation offers only a polymorphic "antecedent selection" that it needs to be complemented by a "primordial selection" that has both the universal ring of the all-embracing divine lure *and* the particular overtone suitable for precisely that actualisation.

It seems then that the mundane creativity, short-sighted and impetuous as it is, is as essential to God as the divine creativity, visionary and reasonable, is to the World. In sum, we obtain a hybrid picture reminiscent of Eckhart's in the sense that the Ultimate is abyssal while God and the World are hypostasis: *Gottheit* as the Ultimate, with *Gott* and *Welt* as (necessary) accidents. *Gott* is additionally a processual divinity: Eckhart takes over Tauler's expression "Gott wird und entwird." Of course, if there is as much "entwerden" as there is "werden," the ontological status of the past is compromised and we obtain a picture far more processual than Whitehead's.

8. Conclusion

Whitehead remarked that "the interior spiritual life of man is a web of many strands. They do not all grow together by uniform extension."[30] According to Gustav Freytag's analysis (*Die Technik des Dramas*, 1863),

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[30] AE, 39.

based on ancient Greek authors and Shakespeare, a drama is divided into five acts: exposition, rising action, climax, falling action, and dénouement. Whitehead's developmental pattern – or dramatic arc – is thus the following:[31] *Science and the Modern World* and *Religion in the Making* are pre-systematic works rediscovering the process virtues of Plato. *Process and Reality*, the acme of Whitehead's speculations, substitutes creativity for creation while still offering possible theistic interpretations. *Adventures of Ideas* (1933) deepens the misunderstanding as the main categories of *Process and Reality* are introduced with the help of a vast picture of the major ideas haunting civilisations. The same holds for *Modes of Thought* (1938). The real breakthrough occurs in "Immortality" (1941), that interprets the Uni-verse as the interplay between two "Worlds", the World of Active Creativity and the World of Timeless Value.

In conclusion, the primordial manyness of the subjective aim delivered by mundane actualities to the divine concrescing entity asks less for speculative developments than its oneness. Some conceptual purification is still needed.[32]And one cannot but think here about the twin theological concepts of evil and kenosis… Limitations of time unfortunately lead us to conclude with these points of suspension.

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[31] Since this is an analogy, we do not worry about the loose connection with the actual phrasing of Freytag (I. Exposition, II. Steigende Handlung mit erregendem Moment, III. Höhepunkt und Peripetie, IV. Fallende Handlung mit retardierendem Moment, V. Katastrophe).

[32] "Great ideas dawn dimly, and associated with other ideas. This empirical association important for history, but apt to be misleading for metaphysics." (Whitehead, quoted in Emmet (1929), 31)

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A PROCESS OF MERGING INTERIOR AND EXTERIOR REALITY: A SHORT VIEW ON THE STRUCTURE OF CREDITION

HANS-FERDINAND ANGEL

1. Introduction

1.1 Interior and exterior reality

The questions such as 'what is reality?' or 'what does reality mean?' are fundamental in neo-platonic discussions. However, this crucial topic is not reflected only within the boundaries of platonic and neo-platonic traditions. While considering the question of "reality", especially when it is further specified as "interior" and "exterior" reality, one must be prepared to find oneself in the middle of one of the most intensively discussed topics of philosophy. Therefore, the terms "interior and exterior reality" mentioned in the title of the present paper, place this paper within a philosophical framework that has been elaborated on since antiquity. It is, therefore, evident that every contribution to any field that related to these aspects is embedded in a large and long-lasting consideration. This was one of the challenges of the present paper.

1.2 Merging

The focus of this contribution is the notion of "merging". This implies that the direction of interest is toward the inner experience. There is always an agent who "merges" the realities.

Depending on one's position according to what is known as the "Theory of Mind" (ToM), the physical, biological, psychological, or mental processes are identified and activated when an agent brings together the surrounding "external" world with his or her "inner" experience. This

brings us to the following question: "What are the terms in which and the perspectives from which inner experiences could be described?"

1.3 Process

In an anthropological sense, the term "merging" emphasizes the fluid or fluctuating "status" of our being or our existence. While reflecting on what happens when an agent "merges" the internal and external experiences, one has to be aware that the question of merging is based theoretically on the notion of "process". It is possible to bring together the external and internal realities, whatever details they might entail, only in the modus of processing. Therefore, the present article seeks to highlight that an understanding of the activity of merging requires a theoretical framework of the process.

1.4 Credition or the role of belief

There are probably several theoretical possibilities in which one could approach the question of "merging" the realities as an inner process. In the present paper, the role of belief in this regard has been highlighted, notably under a specific aspect, i.e., the process of believing, which since a couple of years ago has been scientifically referred to as "credition".

And again, the phenomenon of "belief" became one of the dominant epistemic interests throughout the history of [at the least European] thinking. The appreciation that the "question of belief" receives in the fields of sciences nevertheless remains controversial. There are respectable, detailed discussions available in the fields of theology, philosophy, psychology of religion, and religious sciences, each with different focuses of interrogation. For example, one may find discussions that reflect the "degrees of belief" (Huber & Schmidt-Petri, 2009) or others reflecting the "functions of belief" such as the one based on the influential Dempster-Shafer theory (Denoeux & Masson, 2012). On the other hand, one may simultaneously obtain the impression of a virtual disappearance of the notion of belief in the scientific discussions. Among such discussions is the well-known postulate of the reputed cognitive scientist Stephan Stich, which states that the concept of belief "ought not to play any significant role in a science that is aimed at explaining human cognition and behavior".[1] One may be able to identify at least three partly-overlapping topics that are entailed by the term "belief". These topics are as follows:

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[1] Stich (1996), 5.

(a)   Belief and knowledge

Since the founding positions of Plato (428/27–348/347 B.C.) and Aristotle (384–322 B.C.), the relation between belief and "knowledge" [*Politeia*, esp. 477–478] has been maintained in the discussions. There was a strong influence of the distinction between knowledge (ἐπιστήμη/*episteme*) and meaning (δόξα/*doxa*), and their relation to a belief which Plato developed in his dialogues *Gorgias* and *Theaitetos*. Aristotle's critical perspective on the Platonic concept of the being is well known. From his position, he was more interested in the cognitive states of people when they referred to knowledge or to belief.

Even in modern analytical philosophy, the question of the relationship between knowledge and belief is discussed vividly. Milestones of such a discussion were established by the attempt of Jaakko Hintikka to provide an introduction to the notions of both knowledge and belief (Hintikka, 1962), and the extremely short contribution of Edmund Gettier which handled the question – "Is justified true belief knowledge?" (Gettier, 1963). Hintikka's approach of an epistemic logic was criticized as being too narrow and was enlarged by the notion of a doxastic logic which was more open for an integration of probability (Lenzen, 1980). Another direction was revealed through the interest of Alvin Goldman, who wanted to formulate a theory of justification that was non-epistemic. The examples of the terms that are epistemic and must be avoided are ʻjustified', ʻwarranted', ʻhas (good) grounds', ʻhas reason (to believe)', ʻknows that', ʻsees that', ʻapprehends that', ʻis probable' (in an epistemic or inductive sense), ʻshows that', ʻestablishes that', and ʻascertains that'". The non-epistemic terms are as follows: ʻbelieves that', ʻis true', ʻcauses', ʻit is necessary that', ʻimplies', ʻis deducible from', and is ʻprobable' (either in the frequency sense or the propensity sense)".[2]

(b)   Belief and religion

Often, there is a spontaneous association of "belief/to believe" with religion. This association has been invented by an extended tradition of western thinking. Although in antiquity (of both the Western and Oriental worlds), the verb "to believe" (Greek: πιστεύειν/*pisteuein*; Latin: *credere*) was used in a secular as well as religious manner, a narrow association between the terms "belief/to believe" and "religion" was emphasized by the influential position of Apostle Paul's central doctrine of justification

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[2] Goldman (2000), 340; cf. Runehov and Angel (2013).

by faith (e.g.: Galatians 2:16; Romans 3:28). Not fulfilling the law (*torah*) and just having faith in Christ is able to lead to a communion with God (Aune, 2013; Marguerat, 2013). "To believe in Christ" became the most significant aspect of being a Christian. Therefore, in Christianity, religion and faith (Greek: πίστις/*pistis*; Latin: *fides*) became almost insolvably linked. As the Enlightenment philosophers began propagating the dominant role of rationality in the scientific discourse, the role of belief became a dubious one.

(c)   Belief and faith

Accordingly, interest followed to elucidate the distinction between belief and faith (Kenny, 1992; Mitchell, 1994; Smith, 1987), and consequently, the relationship between faith and reason ["fides et ratio"] (Helm, 1999; Plantinga & Wolterstorff, 1983). It is worth mentioning that the relationship between "belief" and "faith" has been attracting the interest of modern scholars only within the English-speaking traditions of philosophy of religion. It is not possible to lead this discussion in European languages such as French or German, as the linguistic preconditions of two different terms ("faith" and "belief") do not exist in these languages.

1.5 Process and belief

The aforementioned three lines of traditional discussions nevertheless omit, in a deplorable way, the aspect that "believing" exists as a process. In ecclesiastical contexts, a predominating idea of the possibility of being able "to pass over" the Christian beliefs to children or to other people may often be present. However, here lies one of the major problems in the understanding of belief. "Beliefs", as individual states, attitudes, or whatsoever, do not fall from heaven. Every actual attitude or state of belief is the momentary end of a life-long learning process, which includes the ongoing life-long believing processes.

Here, it is not possible to describe extensively the way of European thinking that created the concept of a given quasi-static belief. Various reasons could be identified for this blind spot.

One of these reasons might be the fact that "belief" is a noun, and in that way, a static term. Belief is often discussed as an attitude and as a state of having integrated certain propositions. One may even talk of "belief" in the sense of a "property", for example, my belief, the belief of Christians or Muslims, and so on. In a Christian understanding, belief even became one of the cardinal virtues which could be allegorically

represented as a woman holding a cross. Such an understanding might even be connected with the sociological approach which understands "belief" as "belief system".

Even if the understanding of belief as an attitude integrates, sometimes more implicitly than explicitly, the notion of belief is an actually final state, which might, nevertheless, possibly be changing. The term "belief" as a noun suggests a static understanding of belief. It is difficult, if not impossible, to combine any predominantly static concept of "belief" with a dynamic notion that may be related to processes. Only this aspect of a process-based understanding of belief is the main purpose of this contribution. In the fields of psychology and cognitive neuroscience, believing is an act of generating and maintaining a mental construct as real or true based on previously stored information (Cabeza & Nyberg, 2000; Turner et al., 2004). There has been an increasing interest in the direction of understanding this mental act in terms of adaptive significance (Fletcher et al., 2001; Decety & Chaminade, 2003; Corlett et al., 2004), cognitive processes, and their neural implementation in the human brain (Festinger, 1957; Coltheart, 2007; Coltheart, 2010; Devinsky, 2009; Friston, 2010; Seitz & Angel, 2012). In this perspective, it should be noted that creditions as the processes of believing might be understood as an applied theory of process (Angel, 2016a).

2. From the question of belief toward the question of believing

Indeed, there are available novel approaches to the long-existing discussions regarding the question of belief. These approaches could be characterized by the headline: "from the question of belief toward the question of believing".

This formulation might provide the illusion of an easy change, which is not true. The task of reflecting on the role of belief as a systemic and cultural factor of the surrounding world is completely different from the task of trying to understand what happens as an inner process when someone "is believing". While shifting from the static concept of belief as [an external or internal] reality, to an understanding of the fluidity of the believing process, it soon becomes obvious that it is not possible to make the shift within the theoretical possibilities allowed by the terminological framework of our language. Here, arises the necessity to introduce a couple of novel terms into the scientific discussions, with that, it would be possible, firstly, to stress the "process" character of belief, and secondly,

to encompass the religious as well as non-religious (respectively profane) processes of belief.

2.1 "Credition"– the process of believing

The absence of a common term for the "believing process" that would encompass the notions in everyday language as well as those in philosophy or cognitive science was one of the biggest challenges for interdisciplinary collaboration. In order to address this terminological challenge, the term "credition" was introduced into the scientific discussion a few years ago (Angel, 2006, 73). The concept of "credition" stems from an anthropological perspective of religious experiences and as a consequence of the attempt to understand "religiosity" (Angel, 2013b).

It is worth noting that the neologism "credition" was invented to denote the believing processes that encompassed both religious and secular beliefs. The term was derived from the Latin "*credere*" (to believe) and shaped in analogy to the other psychological terms such as cognition (Latin: *cogitare* = to think/to reflect) or emotion (Latin: *movere* = to move).

The term was originally introduced in scientific discussion in order to overcome the gap present between the different approaches of religious experience in neuroscience (Runehov, 2007), mainly to create a connection between the apparently contradicting neuro-scientific discussions (the limbic versus the limbico-cortical concept) on the origin of religious experiences (Angel, 2006) and has resulted in the position: "No believing without emotion" (Angel, 2016b).

"How to understand the process that is referred to as "credition"?" is the driving question for the "CREDITION RESEARCH PROJECT", which was originally commenced at the Karl-Franzens University of Graz/Austria. In cooperation mainly with the University of Düsseldorf and a few other universities, a respectable interdisciplinary and global network has been established.

2.2 The Credition Research Project

In recent years, there has been an increasing interest in the questions such as how can creditions be understood and how might it be possible to describe their structure. Since 2011, an international conference under the name "The Structure of Credition" is being organized annually with the intention of advancing the model-building of those creditive processes (website: http://credition.uni-graz.at/). The Credition Research Project

serves as a novel direction of interrogation and research that emphasizes the fluid or fluctuating "status" of our being or existence. In our opinion, the dynamic aspect is essential for enquiring and understanding the question of belief contents. Belief contents may be revealed (partly or maybe even completely) through the questioning of the processes of believing.

In the course of this cooperation, a model for credition was developed. In other words, a model for those processes that occur "while someone is believing" was developed. Since it was necessary to base this model on a concept that emphasizes the actual process of believing, a small neologism was introduced into the discussion in order to be able to illustrate this specific process in an exact manner.

2.3 Credition and Neo-Platonism

As my contribution is particularly addressed to scholars interested in neo-platonic discussions I would like to emphasize my specific intention regarding neo-platonism.

While I seek to discuss (neo-)platonic implications of the model of creditions, on the other hand, I also wish to raise the question that whether further research on the theory of credition would potentially influence the neo-platonic studies. Therefore, it would be possible to demonstrate the connection with the different neo-platonic topics such as, for instance, πνεῦμα (*pneuma*), ψυχή (*psyche*), νοῦς (*nous*), and τὸ ἕν καὶ τὰ πολλά (*to hen kai ta polla*). However, for the moment, I will not follow this path. My intention is to provide a considerably short and superficial introduction to the model of credition to demonstrate the manner in which the process of merging of internal and external realities could be described on the basis of the model of credition. When presenting the model, it is obviously not possible to list the arguments that led to its formulation, nor is it possible to provide insights into the neural base that strengthens the model.

3. Believing as a self-organizing process

3.1 The starting point of the believing process

Here arise the two most important questions: When does the process of believing begin and when does it end? This has been intensively discussed previously. We suggest that the process has its starting point within the process of perception, and ends within the process of preparing to take an action (i.e., in the pre-figuration of a space of action). Therefore, the term

"creditions" is conceptualized at the interface of attitude and action. The processes of believing are the results of attitudes, influencing them as well as influencing our actions. This brings the question of "the self" to the floor, which became one of the major topics of discussions since the time of Illumination (Thiel, 2014).

The "self" may be understood as a multi-layered entity (Sugiura, 2011; Sugiura, 2013) and might be connected with the ability and necessity of "meaning-making" (Seitz & Angel, 2014), and as the driving force behind all the creditive processes, which are in the service of meaning-making and related to the inner-balance system.

3.2 The complexity of self-organization process

The believing process is a sophisticated self-organization process with personal and social adaptive functions. The act of believing guides the behavior in uncertain and ambiguous situations, and usually has personal or social advantage over the risk of incorrect beliefs and inappropriate behavior. Consistent with this active and adaptive nature of the believing process, beliefs have been demonstrated to influence reasoning as well as the brain activity related to reasoning (Goel & Dolan, 2003; Langdon & Coltheart, 2000). The proposition "I believe" accompanies either a sense of personal certainty regarding the contents or an intention or position toward this proposition, even though it is not possible to prove the truth of the contents. The recent neuro-cognitive models of self-cognition have explained the developmental origin of such a representation and the hierarchically nested structure of the three levels of complexity in these representations, which are the basic physical level, the interpersonal level, and the higher social level. Adding to the component of self-organized belief representation, the dual-component models assume a belief-evaluation component, which is probably supported by the right dorsolateral prefrontal cortex and which explains the stability of the belief despite the changing environment.

Through the integration of these aspects, the model of credition provides a comprehensive perspective of the believing process and appears convincing in explaining the believing process as a self-organization process of cognitive and emotional elements. Therefore, the believing process, as well as the model of credition, might be an interesting field of further research within the philosophical frameworks such as the neo-platonic field.

3.3 The Model of Credition

While elaborating a conceptual framework of "credition", it became evident that a few more terms were necessarily required. This is the case for the "model of Credition" while these terms are not needed for the conceptional (i.e. neurophysiological) understanding of the believing process. The most important term for the "model of Credition" was "bab". "Bab" is a term that reflects the attempt to introduce into our everyday as well as in our scientific language, specific findings in the brain, which until now did not show any linguistic consequences (Angel, 2013a; Runehov & Angel, 2013).

We have to recall that creditions are understood as processes that are simultaneously interrelated with cognitions and emotions. The believing process is firmly connected with personal relevance, which cannot be understood without integrating the perspectives of both cognition and emotion (Angel, 2015b). This notion has been subscribed by the findings of cognitive neuroscience. Although emotions and cognitions are considered two different domains encompassing separate, if not contradictory, aspects of brain function, there is empirical evidence from the findings of neuroimaging that emotion and cognition are processed in overlapping areas of the lateral prefrontal cortex, through which both are able to contribute to the control of thought and behavior (Gray et al., 2002). Moreover, the current data provide converging evidence that it is possible to influence the working memory and the lateral prefrontal cortex activity through affective variables (Tsuchiya et al., 2008; Seitz et al., 2008; Seitz et al., 2009; Roux et al., 2012). While emotions have been demonstrated to involve the amygdala and the orbitofrontal cortex (Rolls, 2006), cognition comprises different aspects of mental activity, such as speech production, memory processes, attention, and learning processes, which are processed across widespread circuits in the parietal, temporal, and frontal cortical areas, as well as in the amygdala (Toga & Mazziotta, 2000; Schaefer & Gray, 2007).

(a)   The term "bab" and its characteristics

That was the reason for the requirement of introducing a term that integrates both cognitive and emotional aspects. Therefore, the term "bab" was introduced for denoting a known item that consisted of the contents of beliefs. Each "bab" could carry a specific emotional value and describe an item at various levels of complexity. The term "bab" is a meta-theoretically conceived neologism inspired by the hierarchical organization of the "Babushka" doll (also known as "Matreshka" in certain

regions). Similar to this doll of different "sizes", the identical contents of a "bab" could exist with different values of "mightiness", thereby expressing the different personal relevance of the belief content.

Moreover, the fact that the collection of "babs", referred to as "bab-configuration", comprises a novel larger "bab", could be compared to the nested structure of this doll. The term "bab" is a cover-term encompassing and denoting the aspects of content (proposition), emotion, mightiness, and certainty.

In a functional sense, "bab" could be understood as the "basic unit" of a believing process. This aspect will be described a little later in the article.

Firstly, given the term and the idea of "bab", it is now possible to further characterize a "bab" specifically. It is possible to attribute four characteristics to each "bab": the propositional aspect, the emotional aspect, the emotional value or the emotional loading, and the degree of certainty.

In order to describe a single "bab", it is inevitable to name its propositional content, its emotional loading (for instance, fear, joy, anger, etc.), its subjective importance ("mega-bab" vs. "mini-bab") for the "bab-owner", and its [subjectively felt] certainty (doubt vs. certainty). As a result, a "bab-configuration" is an ensemble of different "babs". In a certain sense, a "bab-configuration" is similar to what might be better referred to as a "mindset". The different "babs" in a "bab-configuration" are supposed to be interconnected. A "bab-configuration" is understood as a structure, which is highly modifiable, as well as somewhat stabilized. The "bab-configuration" is relevant for the different functions.

For example, if in a bab-configuration of an agent, there exists a bab that states "cats are divine animals", then in case of a fire, the agent would be prepared to rescue the cats from the fire (Angel, 2013a). Whether he or she would really do it, will also depend on the mightiness of the bab that "cats are divine animals". If it is a mega-bab for the agent, the decision would most probably be different from the situation where it is only a smaller mini-bab. In case of urgency, it may be acceptable that the agent would not find the time to reflect on the degree of certainty that he or she attributes to this bab. In relatively calmer situations, he or she might reflect on whether the cat is really a divine animal. This reflection would probably be associated with emotional sensations; for instance, guilt in case of failure in being able to rescue the cat, or maybe anger on the fact that the cat was rescued while the horses burned up.

(b)   Multifunctionality of Creditions

The function of a creditional process is highly complex. It is possible to speak of credition as a bundle of processes. All the functions are related to the mental state of faith, which is referred to as "bab-configuration". Creditions are proposed to be characterized by four interdependent bio-psychological functions: the enclosure function, the converter function, the stabilizer function, and the modulator function (Angel, 2013a).

The enclosure function is a cognitive process that constitutes or modifies the propositions (bab-configurations) such as vague ideas, confirmed knowledge, values, or even moral claims. The bab-configuration is involved when the question arises that whether a certain aspect could be believed (i.e., whether it is possible to propositionally and emotionally integrate this aspect into an existing bab-configuration). Therefore, the enclosure function is highly interwoven with the process of perception.

"For example, the seed to Albert Einstein's (1837–1955) Special Theory of Relativity (1905) was formed in a paradox which he experienced at the age of 16, when he had attempted to imagine how a ray of light would appear to an observer who was travelling parallel to it with the speed of light. He reached the conclusion that such an observer would see an electromagnetic field oscillating there and back, without ever moving itself, or in other words, without building a wave. This result was contrary to the laws of physics accepted in those times. Nevertheless, Einstein believed in his intuition, and therefore, could later assert that the Theory of Relativity could be carried out, while describing the electromagnetic phenomena, on the condition that all the space and time regulations were relative" (Runehov & Angel, 2013, 208).

The converter function of credition is activated when the bab-configurations are transformed into action, which is a complex transformation. Such transformations are preliminary to decision-making. A given bab-configuration does not force a certain decision or action; it rather prepares a space of action wherein the decision will occur. This was the stage of credition where Einstein put his ideas into practice, and then, years of intellectual as well as personal experiencing followed. The fact that such a transformation is complex may be illustrated by the combination of abilities which Einstein possessed for putting his ideas into action. Firstly, he possessed a profound knowledge of theoretical physics. Secondly, he possessed the mental gift of being able to visualize thought experiments. Thirdly, he was educated in philosophy, from which he developed a skeptical attitude toward things that could not be observed.

Fourthly, and related to the last ability, he questioned authority (Isaacson, 2007, 113).

The stabilizer function of credition alters the fluid bab-configurations, through repetition, into stable attitudes and mindsets. When we speak of "belief" (as a noun), we imply it in terms of the credition model "stabilized bab-configurations". This stabilizing process follows the Hebbian principle (Hebb, 1949), as the associations are learned through the repeated experience of action and its consequential perception. In order to explain this, let's consider the biographical development of Einstein. The period of stabilizing his strange idea was a period of struggle for Einstein, even to a point where he wanted to leave the whole idea behind. When he informed his best friend Michelle Besso about his dilemma, something happened; suddenly he identified the key to the problem. His idea was stabilized, and after five weeks, he sent off his famous paper, titled "On the Electrodynamics of Moving Bodies" (Isaacson, 2007, 122–123).

The modulator function highlights, in a specific way, the differences among the individuals and the differences in the situations, in which the creditive process may occur. It should be supposed that credition has interrelations with the body, the individual memory, the sex (and gender), the state of cognitive and/or emotional development, health, disability or psychic integrity, and various environmental, cultural, social, and religious factors.

(c)   Bab as the basic unit of a creditive process

Babs are understood as the basic entities that play a crucial role in all the aforementioned four processes. It is not possible to explain the role of babs in all the four functions. However, one has to stress that babs are accumulated in the so-called bab-configurations. This implies that in the course of a creditive process, it is not a single bab, rather a larger and more complex bab-configuration which has to be considered.

In addition, one has to note that creditions are conceived as mental processes and that this fact is not exclusive to the notion that not all the processes of believing reach consciousness (Teske, 2007/2008). In order to name the non-conscious "items" of a bab-configuration, a mere artificial term "blob" was invented. Blobs denote babs that do not reach consciousness. Therefore, precisely, a bab-configuration ought to be named as a bab-blob-configuration.

(d)   Merging Interior and Exterior Reality

Now, what is the way to understand the process of merging interior and exterior realities within the framework of credition?

Firstly, all the functions contribute, in a specific way, to this merging process. Secondly, each bab consists of conscious and unconscious moments. As babs are understood as the basic units of the believing process, it is evident that the creditions are inextricably nourished by subjective emotions, which might appear in the sphere of consciousness or remain in a subliminal state. Thirdly, one may understand these inner processes partly under a neuro-pharmacological perspective. Meanwhile, the influential roles of these processes are scientifically discussed under the perspective of "nocebo" or "placebo" (Meissner 2017), and under the perspective of trust processing (Aguilar-Raab & Ditzen 2017). For understanding these processes more deeply the focus has to be directed also to biological and neuropharmacological concepts like meta-organism or holo-biont (Berg 2017) and interoception (Holzer 2017).

The mightiness of an emotional sensation, as well as the "degree of certainty", which is attributed by an agent toward an external reality, is dependent and interrelated with the valuation processes of the agents. As credition serves as the meaning-making process, it may be understood in a metaphorical sense as a contribution to "cipher" or "encrypt" the external information into internal reality. This mainly occurs through the enclosure function. The converter function "deciphers" or "decrypts" the inner reality into a possible space of action.

I will conclude with a hope that further interdisciplinary research in this area will improve the understanding of the believing process and contribute to acknowledge the crucial individual role of believing in perception, action, and attitude. This might render us more sensitive to the fact that our societies develop in an underestimated manner in accordance with the creditional processes of their members. This hope may be nourished by the fact that recently an interdisciplinary and highly international publication has appeared (Angel et al. 2017), and a continuous production of novel publications regarding the believing process (credition) can be observed (Sugiura et al., 2015; Angel, 2016a; Angel, 2016b; Angel & Zimmermann, 2016; Angel & Seitz, 2016; Angel, 2017; Han et al., 2017; Angel et al., 2017; Angel & Seitz, 2017; Seitz et al., 2017; Visala & Angel, 2017; Seitz et al., 2018; Paloutzian et al., 2018; Angel, 2019). Most encouraging is finally the fact that in the year 2018 the first CREDITION LAB was established at the University of Technology in Graz.

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AFTERWORD

In 1977 a book was published titled "Mind in Nature: the Interface of Science and Philosophy". It was edited by John B. Cobb Jr. and David R. Griffin. This volume bridged science and process philosophy, focusing mainly on evolutionary theory. It emerged from the first conference organized by the Center for Process Studies that took place in Bellagio, Italy. Many illustrious process philosophers and scientists attended this conference. Among them were of course John B. Cobb Jr. and David R. Griffin, Charles Hartshorne, W. H. Thorpe, Milic Capek, Sewall Wright, Theodosius Dobzhansky, C. H. Waddington and David Bohm. The conference was inspired by Alfred North Whitehead's philosophy. Scientists were then glad to find a philosophical basis for their non-reductionist views of evolution and deep analyses of quantum theory.

In 2014 the ISNS annual conference took place in Lisbon. One of the sections promoted an approach of Process Philosophy to Neoplatonism. "Mind in Nature" emerged as the spontaneous name for it. Its organizers thought it could not have been named otherwise. A great variety of topics emerged; some could have been relevant in the 1977 conference like evolution, causality, order, becoming, organism, etc.

This volume was named "Mind in Nature" after the ISNS conference section. The editors also hope to honour the previous 1977 volume in using the same title to bridge Process Philosophy and Neoplatonism.

—The Editors

CONTRIBUTORS

HANS-FERDINAND ANGEL, trained in theology, ancient Latin philology, and history, was Professor at the Technical University Dresden (1996-1997) and since 1997 is Full Professor of Catechetics and Religious Education at the Karl-Franzens University Graz. He was section editor (2008-2013) in the editorial board of the Encyclopaedia of Sciences and Religions (Springer 2013). He is scientific director of the Credition Research Project at the Karl-Franzens University of Graz (Austria) and was editor-in-chief of "Processes of Believing: The Acquisition, Maintenance, and Change in Creditions" (Springer 2017).

JOSÉ C. BARACAT JR. is Professor of ancient Greek language and literature at the Federal University of Rio Grande do Sul (Brazil). His main research interests are the Platonic tradition, especially Plotinus, and theories on time and space. He currently works on the translation of Plotinus' *Enneads*.

ALJOSCHA BERVE is Assistant Professor of Philosophy at the Heinrich-Heine-Universität, Düsseldorf, Germany, and Executive Director and Vice President of the European Society for Process Thought. The Author of a book and various articles on Whitehead, his field of research include process philosophy, metaphysics, philosophy of psychology and German philosophy at the turn of the 20th century.

MAGDA COSTA CARVALHO is a professor at the University of the Azores, Portugal, and a research member and the Director of NICA: Interdisciplinary Center for Childhood andAdolescence, University of the Azores. She holds a Ph.D. on Henri Bergson's Concept of Nature. Her research focuses are on Philosophy for Children, as well as on environmental philosophy. She holds Levels 1 and 2 of SAPERE's P4C training. She is the Director of a Masters Program in Philosophy for Children (University of the Azores).

CARLOS JOÃO CORREIA is Associate Professor at the University of Lisbon (Portugal). He obtained his Ph.D at the same University with a thesis on the philosophical work of Paul Ricoeur. He has published several books and more than one hundred scientific articles. His academic interests

include Contemporary Philosophy, Aesthetics, Philosophy of Religion, and Philosophy of Mind. He is the director of the journal philosophy@LISBON, president of the philosophical and cultural Association "What is it?", and member of the Mind-Brain College at the University of Lisbon.

ANA RITA FERREIRA received her Ph.D from the University of Lisbon with a thesis on Saint Augustine's Aesthetics (2012). She holds a Master Degree in Curatorial Studies (2006) and a Licentiate Degree in Painting (2003) by the Faculty of Fine Arts of the University of Lisbon. Ana Rita Ferreira is an associate member of CFUL – Centro de Filosofia da Universidade de Lisboa and an integrated member of NUPPE – Research Group of the Institute of Arts of the Federal University of Uberlândia (IARTE/ UFU – Brazil), committed to the academic research within the fields of visual arts, art history and art education. She is a founding member of the publishing house Vagamundo (www.vagamundo.fr) and currently works as advisor at DSS – Norwegian Government Security and Service Organization.

LEVAN GIGINEISHVILI is a Ph.D graduate of the Central European University, Budapest. He also graduated Catholic University of Leuven (Philosophy) and Harvard University (Education). His PhD dissertation "The Platonic Theology of Ioane Petritsi" later published as a book (Gorgias Press, 2007) is the first English monograph written on this 12th century philosopher. Presently Levan Gigineishvili works at the Tbilisi State University, giving courses on Byzantine literature and Medieval Philosophy. He is an author of numerous articles on Petritsi and medieval Christian Platonism in the Eastern Christendom.

ALEXANDER HAITOS recently earned his Ph.D. in philosophy from Texas A&M University, graduating in August 2018. Alex's research interests span the history of philosophy, with a focus on metaphysics, process philosophy, and American philosophy. He wrote his dissertation on William James and Alfred North Whitehead, offering an interpretation of Whitehead's metaphysics grounded in James's radical empiricism and on the aesthetic dimension of Whitehead's own thought.

HELMUT MAAßEN teaches philosophy at Heinrich-Heine-Universität, Düsseldorf, Germany. He has spent research sabbaticals at Boston University, USA (1990), and Jawarhalal Nehru University, India (2000). He has published several books on A.N. Whitehead and Charles S. Peirce,

as well as numerous scholarly articles. He is also the International Book Review Coordinator for Germany of Process Studies, and President of the German Whitehead Society (since 2009), and the European Society for Process Thought (ESPT, since 2012). He is also Finance Director of the International Process Network (IPN).

Dennis Sölch is the father of two wonderful daughters. He works as an assistant professor at the department of philosophy at Düsseldorf University and is the executive director of the German Whitehead Association. In 2016 he was the "William James Scholar in Residence" at the William-James-Center in Potsdam and he is a regular visiting lecturer at the University of Klagenfurt. His areas of research cover a broad range of the history of philosophy with a particular focus on process philosophy, American Transcendentalism and Pragmatism.

Maria-Teresa Teixeira holds a Ph.D. in contemporary philosophy from Faculdade de Letras da Universidade de Lisboa. She is the author of two books, *Ser, Devir e Perecer A criatividade na filosofia de Whitehead* and *Consciência e Acção Bergson e as neurociências*. She has translated *Process and Reality* by A. N. Whitehead into Portuguese. She has also published many papers in international journals and several book chapters. She serves as the International Process Network executive director; and she was the organizer of the 2017 International Whitehead Conference. Her overlapping interests include metaphysics and process thought and focus mainly on the philosophies of Henri Bergson, Alfred North Whitehead, Sri Aurobindo, and Vladimir Jankélévitch.

Moirika Reker holds an M.F.A in Visual Arts from Columbia University, NY. She develops her artwork independently and in an ongoing collaboration with Gilberto Reis, in drawing, video, photography and interventions in the public space. She is preparing her Ph.D. dissertation on the philosophy of the garden at Faculdade de Letras da Universidade de Lisboa. Her main research interests are the philosophy of the landscape, the garden and aesthetics.

Luca Vanzago is full professor of Theoretical Philosophy at Pavia University in Italy. His work deals mainly with phenomenological and processual doctrines of experience. He is the author of 8 books and more than 60 articles. At present he serves as co-director of the Cancer Research Centre of the University of Pavia for the Humanities section.

†MICHAEL F. WAGNER was Professor of Philosophy at the University of San Diego, and specialized in the classical Neoplatonic tradition. His publications include *The Enigmatic Reality of Time: Aristotle, Plotinus, and Today* (2008); (Editor) *Neoplatonism and Nature* (2002); "The Nature of Art and the Art of Nature in Plotinus" in *Literary, Philosophical and Religious Studies in the Platonic Tradition* (2013); "Scientific Realism and Plotinus' Metaphysic of Nature" in *Neoplatonism and Contemporary Thought: Part One* (2002); "Plotinus on the Nature of Physical Reality" in *The Cambridge Companion to Plotinus* (1996); and "Vertical Causation in Plotinus" in *The Structure of Being* (1982).

MICHEL WEBER is the director of the Centre de philosophie pratique in Bruxelles (Belgium) and adjunct professor at the Department of Educational Foundations of the University of Saskatchewan (Canada). His current research program mainly deals with political philosophy and the philosophy of psychiatry. He is the author of nine monographs and (co-)editor of twenty-seven books, including *Whitehead's Pancreativism: The Basics* and the *Handbook of Whiteheadian Process Thought* (with Will Desmond).