

Michel Weber and Pierfrancesco Basile (Eds.)  
Subjectivity, Process, and Rationality

# **PROCESS THOUGHT**

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**Volume 14**

Michel Weber  
Pierfrancesco Basile (Eds.)

# Subjectivity, Process, and Rationality



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Apart from the experiences of subjects there is  
nothing, nothing, nothing, bare nothingness.  
(A. N. Whitehead, *Process and Reality*)



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# Preface

The present volume gathers prominent international scholars from Continental Europe and the US to celebrate the complex legacy of Reiner Wiehl, whose work has been instrumental in bringing together the European tradition of “prima philosophia,” as represented by Plato, Spinoza, Kant, Hegel and to a certain extent Nietzsche, with the adventurous speculative renewal of the twentieth century by such authors as Martin Heidegger, Karl Jaspers and Alfred North Whitehead. Like Philippe Devaux (1902–1979) in Belgium, Enzo Paci (1911–1976) in Italy and Jean Wahl (1888–1974) in France, Wiehl is one of the very few European thinkers to have understood the importance of that historical synergy and especially to have insisted on the dazzling virtues of Whitehead’s ontology. Particularly significant in this respect are his seminal *Introduction* to the German translation of *Adventures of Ideas* (1971) and two recent books, *Metaphysik und Erfahrung* (1996) and *Subjektivität und System* (2000). Wiehl has made important contributions to various aspects of the process paradigm: accordingly, essays with a range of focus as wide as Wiehl’s own expertise are gathered in this volume.

“Phenomenology,” “Pragmatism,” “Existentialism,” “Post-modernism,” “Analytic Philosophy”—all these denominations are likely to be well-known to the reader. What is, however, process philosophy? What are its characteristic doctrines and concerns?

Since it seemed appropriate to have *Reiner Wiehl* himself answer these questions, Part I (“Process and Universals”) begins with one of his most recent papers (“Process Philosophy and the Problem of Universals”), which has been written and translated for this occasion and in which the problem of the distinctive nature of process philosophy is explicitly addressed. Wiehl first draws a distinction between a broad and a narrow sense in which the expression “process philosophy” can be understood, and then provides an illustration of how the process paradigm in the strict sense impacts upon traditional philosophical issues by considering the main ways in which it modifies the classical doctrine of universals. Wiehl’s intellectually challenging paper is followed by a long and equally challenging response by *Anderson Weekes* (“Abstraction and Individuation

in Whitehead and Wiehl”), where different theories of individuation are carefully distinguished and the question is raised as to the exact nature of Whitehead’s position. Besides providing a detailed commentary of Wiehl’s interpretation of Whitehead on the problem of universals, Weekes discusses some apparent contradictions in Whitehead’s theory. Moreover, he argues that the problem of individuation is set upon a wholly new basis, for whereas traditional theories of individuation assume individuality as a static phenomenon, Whitehead’s metaphysics understands it as a dynamic process with multiple phases and aspects.

Notoriously, Whitehead arrived at his complex ontology by way of generalisation from two main sources: our experiences (starting with his own), the actualities we know better because we know them from “within,” and the basic notions of post-Maxwellian physical theory. In Part II (“Nature and Subjectivity”) *John Cobb* (“Prehension”) introduces one of the most basic concepts in Whitehead’s philosophy, *prehension*, arguing that an analysis of experience based upon that concept is more adequate than materialism, Humean empiricism and Kantian dualism. The following paper by *Pierfrancesco Basile* (“Whitehead, Hume and the Phenomenology of Causation”) continues the line of thought initiated by Cobb by giving a closer look at Whitehead’s critique of Hume. Moving beyond the mere epistemological plane, *Joseph Bracken* (“Subjectivity, System and Intersubjectivity”) focuses upon the Whiteheadian concept of “society,” which is meant to capture the intrinsic solidarity and internality of all constituents of reality. Although Bracken is appreciative of Whitehead’s approach, he argues that Whitehead fails to provide a satisfactory explanation of how distinct constituents (Whitehead’s *actual occasions*) can give rise to a complex capable of acting as a single individual, not merely as a collection of parts; Whitehead’s theory stands therefore in need of correction and supplementation. With the last paper of Part II we turn to the other source of Whitehead’s speculative generalizations, modern physics: *Leemon B. McHenry* (“Maxwell’s Field and Whitehead’s Events: The Adventure of a Revolutionary Idea”) investigates the influence of James Clerk Maxwell’s electromagnetic theory and of the concept of a physical field on Whitehead’s ontology of events.

Whether consciously or unconsciously, the sort of worldview we hold is likely to influence our decisions with regard to issues of practical concern, as well as our general attitude towards life and its challenges. In Part III (“Ethics and Civilization”) *David Ray Griffin* (“Morality and Scientific Naturalism: Overcoming the Conflicts”) argues that the widespread denial of moral realism is based upon a mistaken conception of naturalism, one that should be replaced by a naturalistic worldview based upon the

philosophy of Whitehead. In an analytical fashion, problems concerning the logic of moral arguments are addressed by *John W. Lango* (“Can Specific Rules be Deduced from Moral Principles?”) who, inspired by Whitehead’s conception of coherence (which involves more than mere logical coherence), advocates an ethical coherentism that involves deductive reasoning. This might seem surprising at first sight, for coherentism and deductivism are usually held to be contradictory positions, yet Lango contends that it is foundationalism, rather than deductive reasoning *per se*, that is incompatible with coherentism. *Nicholas Rescher* (“Ethical Quantities”) provides vivid illustrations of the difficulties we encounter in providing quantitative ethical specifications. How many escaping guilty does it take to justify one condemned innocent? We are at loss in providing any criteria for determining the correct number, yet we cannot avoid this sort of questions in ordinary life. In the two remaining papers of this section, *George Allan* (“The Wand of the Enchanter”) explores Whitehead’s account of the origin and essence of civilization, whereas *Michel Weber* (“Creativity, Efficacy and Vision: Ethics and Psychology in an Open Universe”) tackles the question of how psychology and ethics should be reinterpreted in an open universe of the sort envisaged by *radically* empiricist thinkers such as James and Whitehead.

Although Whitehead’s philosophy fades from view in Part IV (“Psychology and Phenomenology”), the sort of issues with which he was concerned do not. The problem of subjectivity is addressed in a more concrete and direct fashion by *Michael Hampe* (“Truthfulness and Memory: Philosophical Notes on Trauma”), whose reflections upon the nature and significance of traumatic experiences issue in a critique of reductionist explanations, once represented by Huxley’s epiphenomenalism and today by the more refined yet still incomplete accounts of neuropsychology. If people should begin to view themselves solely in terms of scientific descriptions, Hampe writes, then “the realm of what is humanly possible would be dramatically reduced.” The critique of reductionism is thus motivated by a larger concern about the existential and moral quality of our lives. The “mystery” of the human psyche (no irony involved) is also the topic of *Bernd Weidmann*’s essay (“Empathy and Reliability: Albert Fraenkel as seen by his Patients Hesse and Jaspers”), which canvasses a portrait of Albert Fraenkel’s personality and professional *ethos* through the recollections of two of his patients. The relation of subjectivity and the historicity of our cultural heritages is discussed from an hermeneutical perspective by *Alon Segev* (“On Gadamer, Phenomenology and Historical Relativism”), whose paper emphasizes the phenomenological components in Gadamer’s writings with the aim of criticizing the mistaken interpretations of Rorty and Habermas.

The book ends with a paper by *Helmut Maaßen* (“Max Scheler on Love and Hate: A Phenomenological Approach”), where Scheler’s conception of love is analyzed in the context of his general theory of emotions. It is quite appropriate that a book such as this one, in which the idea of reality and of subjectivity as being in constant process occupies the centre of the stage, should end with an open question, for Maaßen asks us to consider whether our love is to be directed upwards towards a vision of God, as it is held by Augustine, or down to every-day life, as suggested by James Joyce. It is also fitting that, as the interested reader will see, his paper should end on a light note: after all, the ability to smile is oftentimes the best antidote to that crystallization of ideas Whitehead labeled “fallacy of misplaced concreteness”—the cause of avoidable evils in the larger world that incessantly grows outside the fascinating yet limited boundaries of philosophical speculation.

A common thread runs through all contributions: the problematic nature of *subjectivity* and especially of its *process* slant, which easily eludes the static and abstract schemes of *rationality*. We regard it as a positive—indeed Whiteheadian—characteristic of this book that different ways of tackling philosophical problems are featured, for the question of the adequacy of the method used in philosophical speculation has to remain an open one.

This book would not have seen the light without the conjoint efforts of many colleagues and friends. We are indebted to Reiner Wiehl and Bernd Weidmann for their kind and competent assistance during the preparation of this volume. A very special thank must go to Anderson Weekes, who has tackled the rather difficult task of translating Professor Wiehl’s paper while also commenting upon it in a way that is both scholarly accurate and philosophically acute. Finally, we wish to thank all contributors, including those who for reasons of time and space could not participate in the present volume: Andrea Poma and Joachim Klose.

Pierfrancesco Basile & Michel Weber

September 2006

**I.**

# **Process and Universals**



# Process Philosophy and the Problem of Universals

## Reiner Wiehl

### 1. What is Process Philosophy?

What is process philosophy? What specific characteristic defines it as such? On a first approximation, this question refers to the whole of European philosophy, especially to its origins—the classical Greek philosophy of Plato and Aristotle and its pre-Socratic roots—as well as to medieval and modern philosophy.<sup>1</sup> Indisputably, Aristotle may be considered the first acme of European process philosophy. One need only think of the significance of his concept of motion (*kinēsis*) and its involvement with the founding notion of his philosophy, the concept of actualization (*energeia* or *entelecheia*). When Aristotle criticizes the philosophy of Plato, his great teacher and predecessor, it is precisely from this viewpoint of a “process philosophy” that his critique is primarily accomplished. For he charges Plato with an inadequate understanding of motion and of the complexly ordered totality to which motions give rise.<sup>2</sup> It is just this critique that enables us to glimpse in Plato not so much the Pythagorean as, on the contrary, the criticized Heraclitean. And Aristotle is by no means the only one to see Plato—the very Plato who created the theory of Ideas—as the founder of process philosophy. Throughout the Middle Ages the most important Platonic text was the *Timaeus*, which can be grouped together with the *Theaetetus* and the *Sophist* to show that the motility [*Bewegtheit*] of being was an issue already anticipated by Plato. In the modern period, in the philosophy of the twentieth century, we must mention Henri Bergson and Alfred North Whitehead not only as path-

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\* The author's notes appear as footnotes with Arabic numbering, endnotes with Roman numbering refer to the translator's additional notes.

breaking proponents of process philosophy, but also as thinkers who recurred to the just-noted feature of Platonic philosophy in working out their own views.<sup>3</sup>

To read the whole of European philosophy as process philosophy means distinguishing different modes and kinds of processuality. It means seeing the concepts of motion [*Bewegung*] and processuality [*Prozessualität*] as the decisive keynotes in every variation of philosophical emphasis. Thus, for example, there is the happening of motion in the occurrences [*Vorgänge*] of nature, and there is the unique motion of the cosmos as a whole; but also there are specific processes of human cognition throughout its varied types, all of which efficaciously express the motion of the soul and the mind. Furthermore, with its concept of God medieval philosophy added to the manifold types and forms of motion that make up the nucleus of any process philosophy the idea of creation [*Schöpfung*], which is fundamental in process thinking. What is creation? It is primarily the creation of a world, but also the creation of all creaturely being to the extent that it is not sufficiently explained through knowledge based on scientific research. Scientific knowledge renders many things intelligible, even the genesis of living things. At the same time, however, it always harbors questions about its own limits and thus also gives rise to the philosophical question of epistemological critique. So it is not by accident that the imprint of process theory upon modern philosophy is found in philosophical logic and in the general theory of knowledge. Taking its departure from Kant, a theory of the “motion of the concept” was developed and found its consummate elaboration in Hegel’s speculative logic, as well as in the theory of the cognitive process developed by the neo-Kantian school.<sup>4</sup>

In regard to the overall development of the European tradition of process philosophy, we can make the following observation. Since the founding of this tradition by Plato, the categories of motion, becoming [*Werden*] and creation, as well as their counter-notion, the Idea, have remained fundamental throughout. The meaning of this decisive counter-notion is complex. What is fundamental is that the Idea, along with all of its closely-allied concomitant determinations, embodies an authority that makes possible the articulation of an antithesis to ceaseless coming-to-be and passing-away. It is the assumption of Ideas that makes it possible to secure a fixed point of reference in the continual flux of things and in the ceaseless change of appearances. Thus, in its purest form, this notion of the Idea represents the transcending of moved and mutable being. The Idea is the being of the eternal.



Universals cannot be simply identified with Ideas.<sup>5</sup> While such an identification is a question of terminological usage, it is also a question of the specific form that process philosophy takes. Interpreting the whole of European philosophy as process philosophy, including the Platonic theory of Ideas, requires a distinction between a broader and a narrower concept of this philosophy. In the broadest sense, every form that European philosophy has taken is process philosophy insofar as it is founded on an opposition between the changeable and the unchangeable (and that means: insofar as philosophical thinking is framed by these concepts in a way that qualifies as *metaphysics*). This general and broad understanding contrasts with an understanding of process philosophy in the proper and narrow sense. The latter can be distinguished by an array of theorems that do not by any means all require one another and which, accordingly, make it possible to discriminate the different subtypes of such a “process philosophy proper.” Process philosophy in the proper sense consists in a specific delimitation of the basic concepts of process philosophy taken in the widest sense: in a specification or modification in the meanings of (1) creation, (2) motion and (3) Idea.

(1) The narrower specification of the traditional, wide-ranging concept of creation is given expression in the definition of the term “creativity.” Regardless of its direct linguistic descent from the tradition of Judeo-Christian creation theology, the concept of “creativity” has acquired a specific intonation in recent process philosophy that forbids any immediate equation of the principle of “creation” with the principle of “creativity.” Creativity is not the cause of the world’s coming into being, nor the cause of the genesis of a being,<sup>i</sup> but rather the principle or ground of novelty.<sup>6</sup> It thus presupposes the happening of events<sup>ii</sup> as such, for it is a principle of the formation and shaping of events [*ein Gestaltungsprinzip des Geschehens*]. By contrast, the act of creation as traditionally understood is in no way necessarily bound up with the idea of novelty. On the contrary, creation is understood in the broad tradition of mythico-theological “process philosophy” as a unique, one-time occurrence. In contradistinction to the idea of novelty, this implies something *incomparable*. Through this incomparable occurrence something comes to be that has more so the character of the supra-temporal and eternal than the novel.

(2) The second modification in meaning concerns the definition of motion or, more precisely, the motility of beings [*des Seienden*] and the mutability [*Veränderlichkeit*] of things. Process philosophy in the narrower sense presents a radical critique of the ontology of things and substances. Here the character of what-is in its primordial form is not that of things or substances. The principle of “creativity” thus does not refer primarily to

things or to substances, but to events or processes. Strictly speaking, it is not things which are novel, but something pertaining to events. In regard to motion and processes, process philosophy's critique of things and substances means: motion is not primarily something attributed to something, not something secondary and derivative, not a state of existing things, but rather that which the givenness of things presupposes as an anterior ground. This critique of thing-ontology is a consequence of the Eleatic aporias about motion. The primordially of motion, of events, is incompatible with the primordially of enduring things, of which some properties change while others stay the same. If the motility of what-is (of beings) is construed radically, then the seeming fixity and durability of things dissolve into phenomena, into mere appearances. "Phenomenalism" is thus the consequence of an explicit or implicit ontology that presupposes motion and things, motility and thinghood, as equiprimordial givens. Phenomenalism and skepticism accompany process philosophy in the broader sense from the beginning.<sup>iii</sup>

(3) The precise delineation of the third specification—that is, the narrower specification of the concept of "Idea"—poses particular difficulties. In Platonism originally Ideas represent, in contrast to motion and the moveable [*dem Beweglichen*], what truly and properly *is*; they represent that which bestows permanence and duration upon what is moveable and moved—both as such and for its human accessibility. These Ideas thereby distinguish themselves from things and objects of all sorts because the latter belong to the realm of the mutable or perishable [*des Veränderlichen bzw. Vergänglichen*]. In this way one of the essential determinations of Ideas emerges: their transcendence with respect to things and objective states of affairs insofar as the latter belong to the realm of the moveable.

There is a long tradition of process philosophy that does not take its departure from the Platonic heritage described here, but owes its allegiance instead to the Aristotelian heritage, which must be seen as the inversion of Platonic philosophy, albeit under the aegis of "ideal types" and potent simplification. This tradition, which basically dominates the entire European tradition, consists for one thing in the inversion according to which *being that is moveable and moved* acquires primacy over the unmoved and eternal—a primacy, at least, that is valid for us humans in our quotidian grasp of objects and the world. To be sure, in a sense this primacy is circumscribed. For, in contradistinction to an assumed pure motion that can be thought only in the form of a constant and invariable motility [*unveränderliche Bewegtheit*] of the eternal, all earthly motion is bound up with things and objective states of affairs and is, by dint of this

connection, already possessed of a certain constancy and fixity. Nevertheless, the status of Ideas is thereby fundamentally altered. For one thing, the Ideas, insofar as they are still posited as conditions of a kind of permanence at all, forfeit their status as that which truly and properly *is*. What truly *is* are rather things in their motility under the presupposition of a being conceived in the manner of Ideas,<sup>iv</sup> but without Ideas being conceded the status of truth. Ideas are not what truly *is*. They are items of givenness [*Gegebenheiten*] that the human being acquires from a particular perception and makes serviceable for an application beyond the present moment.

The two philosophical positions described here are distinguished in the traditional nomenclature as realism (about Ideas) and nominalism. Process philosophy in the narrower and proper sense can be seen as a revision of these two positions, which have dominated classical philosophy. This revision results immediately from the two previously-noted characteristics of process philosophy in the narrower and proper sense: from the assumption that true and proper being [*Sein*] is the being of motion or process and that no proper and primordial being belongs to things and their objective states of affairs.

These assumptions entail a peculiar and at first sight seemingly paradoxical consequence for process philosophy in the narrower sense. They imply that a primordial and essential ontological valence attaches to Ideas as well as to processes. Under the stated conditions there cannot be any question whether Ideas exist, but only how. For, if only the moved, the moveable, exists to begin with, then the possibility of determining the moveable as this or that moveable, as this or that determinately thus and so moved moveable, must be sought in Ideas. The question of the *what* and *how* of the givenness of Ideas leads now to the concept of universals and thereby to the assumption of a hierarchy of linguistically bound determinations of concepts ordered in levels of generality and particularity. As universals, ideas are bound up with such hierarchies, whose conceptual structure involves, not last, valuations.<sup>v</sup> Ideas, construed in this way as universals, are bound up with hierarchies of value-determinations. In respect to their opposite orientations, such hierarchies can be either open or closed in both the upward and the downward directions.<sup>vi</sup> The downward *termini* of such hierarchies are what we call “individuals,” the upward “universals.”<sup>7</sup> Accordingly, open hierarchies evince a transcendence of individuality and universality.<sup>vii</sup>

In connection with the hierarchy of value-determinations given concomitantly with Ideas, traditional process philosophy contains an ambiguity that cannot be resolved within the bounds of its own ontology.

At issue is the ambiguity of the specific reference of these hierarchies, which refer either to the moveable as such or to the moveable via the assumption of things and their properties. In other words: the noted ambiguity roots in the obscurity and absent clarification of the relation between motions and things. Thus, it remains uncertain whether motion is something pertaining to things or things are something pertaining to events (that is, whether motion is an event to which things give rise or things are structures to which events give rise).<sup>viii</sup>

A further indeterminacy is involved in this ambiguity of traditional process philosophy. This has to do with the meaning of transcendence. One of the two meanings of transcendence construes it in reference to the *totality* of a given hierarchy of concepts and value-determinations. The other meaning arises from the *primal relationship* (to be discussed below) that the hierarchy of concepts and values enters into with things or events. It involves the transcendence of a *part* of the hierarchy—in the extreme case, the transcendence of the highest or of the lowest in the hierarchy—*vis-à-vis* the being [*Seienden*] for which the hierarchy functions as a predicative order [*Bestimmungsordnung*].<sup>ix</sup>

## 2. Types of Universals and their Ontological Referents

The second meaning of transcendence corresponds at least partially to the problematic known as the controversy over universals, which owes its origin to the implicit divergence between Platonic and Aristotelian philosophy and historically became the main bone of contention in medieval philosophy.<sup>x</sup> Now if process philosophy in the narrower sense accords things and their objective states of affairs a merely derivative ontological status that can be made intelligible only by reference to the primordial ontological givenness of processes and Ideas, then several important consequences follow. They concern the basic assumption about Ideas and their referral to processes. For one thing, it follows that Ideas and their allied hierarchies of concepts and values have *events* (and what is processually given in concomitance with events) *as their primordial referents*.<sup>xi</sup> If for any hierarchy of ideas there has to be a respective basis which constitutes the basis for the validity of the hierarchy of determinations, then this basis is not to be found in *things*, which function as the basis for the concepts of individuality, specification, and generality. Under the stated conditions, the basis must rather be sought in the events themselves and in their givenness. But from this follows a *second*

consequence: there must be—given in the events themselves—a structure and a differentiation with sufficient affinity to the hierarchical order of Ideas that the referral of the hierarchy of concepts and values to events is made possible. This differentiated structure is not primarily that of the distinction between the general and the particular, which is a *conceptual* distinction, but that of width and depth. This implicit order is that of space-time. It is as little a purely spatial order as it is a purely temporal one. Rather, space and time constitute the fundamental order of events to which the hierarchical orders of Ideas refer.<sup>xii</sup>

How different this is from the Kantian theory of the world is plainly evident.<sup>8</sup> It has in common with Kant's theory only the distinction between the patterns of order relevant to motion and to concepts. But an important consequence for determining the nature of universals is bound up with the second peculiarity of process philosophy explicated in the previous paragraph. A single complex of interconnected events represents for itself a universe in the sense that different Ideas and concomitantly different hierarchies of concepts and values can be and in reality actually are related to this historical universe. There is not merely one historical universe, but many universes, which do not exist without relation or interconnection.<sup>xiii</sup> The real and possible interconnections must therefore admit of measurement according to their respective width and depth. To this width and depth corresponds a structure of form, which we designate as space-time.

A historical universe is relative to all those events that are contained in it and which, relative to it, have their respective width and depth. Historical worlds, too—that is, not just Ideas or conceptual determinations—manifest particular hierarchies of their own. There are also, in respect to width and depth, differences in primordially and equiprimordially. Process philosophy in the narrower sense thus leads with strict consistency to two different forms of universals and to correspondingly different hierarchies, namely, to a hierarchy of generality and particularity and to a hierarchy of width and depth. Generality and particularity are conceptual distinctions that apply to things, while width and depth are processual-historical distinctions that apply to events.

Bound up with this is a deep-running revision of the traditional theory of relations.<sup>9</sup> Since in view of the primordially of events and of Ideas only a secondary ontological significance is accorded to things and substances, not only does the classical distinction in the theory of universals between realism, nominalism, and conceptualism become obsolete, but also the simple and straightforward distinction between internal and external relations vanishes. What takes its place initially is the more complex

distinction between historical and conceptual relations. But this presupposes that the two primordial givens, the happening of events and ideal determinacies, cannot be reduced to one or the other type of relation (*i.e.*, to the historical or the conceptual). It is one of the mistakes of Kant's transcendental idealism that he reduced the interconnection of events to the corresponding type of relation, that is, to the intuition-forms of space and time. And on this basis it was merely a matter of logical consistency when his successors in the Marburg school derived the two types of relation from one another and dissolved the relations of space-time into conceptual relations. These reductions may be of use for laying the foundations of a mathematical logic, but for the understanding of reality they were false leads. The two primal forms of relationality (historical and conceptual), which correspond to the two primal types of universality (width and depth, on the one hand, and generality and particularity, on the other), have a common formal property: they are both internal or inner relations. This is a defect inasmuch as the conditions of possible external relations are not fulfilled *ipso facto* with the givenness of internal relations. Internal relations are such that the relata cannot be separated from their relations and are thus given only in an inseparable connection with the relations. Since there are not only monadic and dyadic relations, but also polyadic relations, any given relation of one sort or another can be considered in terms of the completeness with which it fulfills the conditions of an internal relation, *e.g.*, patterns are structures of internal relationality whose relata need not be completely internal.

Internal relationality thus represents the formal primary form [*die formale Grundform*] which relations take among events, on the one hand, and among Ideas, on the other. To the extent that there is a primal form in common here, it can be grounded theoretically on the fundamental concept of removal/distantiation [*Entfernung*], *i.e.*, on the formal primary difference between proximity and distance.<sup>xiv</sup> This difference constitutes the fundamental form common to the two primary relations of events and of Ideas: that is, it constitutes the fundamental *differentia* of width and depth, on the one hand, and of generality and particularity, on the other.

Proximity and distance represent a formal primary distinction [*eine formale Grundunterscheidung*] that neutralizes motion into rest and stylizes rest as potential motion. The distinction between proximity and distance conceived in this general form contains no preferential metric. A measure for proximity and distance first arises from the specific determinations of the connection between events and Ideas. Now removal, as a general primary form, represents, to be sure, an abstraction from the basic thesis of process philosophy in the narrower and proper sense. According to this

thesis events or processes enjoy an absolute ontological primacy—not only *vis-à-vis* things and thingly objects, but also *vis-à-vis* the order-structures of Ideas. In that distances (removal) neutralize motions and stylize states of rest, they methodically conceal that primacy of the motility of what-is (of beings).

This absolute ontological primacy of process and event makes a third class or type of internal relation necessary.<sup>xv</sup> Accordingly, processes or events are not only related internally to other events in their world, but also to Ideas and their structure of internal relations. Consequently, processes refer internally to internal relations of other events and to internal relations of Ideas, which in turn also contain relations to other items of givenness. Processes thus represent for process philosophy in the narrower sense a more or less complex structure of internal relations. This structure has for its own part the ontological status of an event.<sup>xvi</sup> In the happening of this event multiple and various internal relations are ordered, and they are ordered in such a way that different operations contribute to their order. To such an order belong coordination and subordination, but also exclusion and abstraction. The unity of a discrete, unified event requires the assumption of a corresponding principle of unity. According to the basic thesis of process philosophy—that the most primordial givens are the events themselves—the principle of the unity of a discrete event can be nothing other than the happening of the event itself. It makes no sense to seek the unity of a particular event outside of the event itself.

### 3. Processes and Subjects in Modern Philosophy

The principle of unity of a particular discrete event is the principle of subjectivity. According to process philosophy in the narrower sense, a subject is not to be understood as *Idea*—not as a conceptually specified nexus of values—but as *event*.<sup>xvii</sup> Subjectivity as the principle of unity of a discrete event is the relevant event considered from the standpoint of its immanent unity and in respect of its immanent ground of unity. In regard to its formal structure, subjectivity is a particular kind of self-reference. Process philosophy understands this reference of the subject to itself as a “self-becoming” [“*Werden zu sich*”],<sup>10</sup> as an event in which an incipient self [*ein anfängliches Selbst*] becomes a determinate self, in itself finalized: the respective self of that particular event [*Geschehen*]. Subjectivity as process is an autopoietic event. But in this connection a more precise distinction has to be made: between *autopoiesis* and *autogenesis*.<sup>11</sup> A

subject does not produce itself. It is not the creator of itself. The genesis of a subject represents for it a long antecedent history, which disappears into the width and depth of its antecedent world. The event that constitutes a single subject originates out of countless other histories, whose interconnection makes up its antecedent history. In various definite ways, these histories imbue the happening of the subjectivity that is being constituted. The incipient subject cannot be precisely delineated in its incipience. The incipience of it consists in a process of dissociation from its more or less complex antecedent history. Considered externally, the incipient subject at its inception appears as the happening of the contraction of an antecedent world. In the process of dissociation from this anterior world, the contraction constitutes the beginning of an interior world of its own that is unique in itself. The *incipient* happening of a subject is the incipient happening of the elaboration of an interior world. The happening of the self-becoming of a *finalized* subject is the elaboration of the particular exclusive uniqueness of that finalized subject. The autopoietic act of the subject accordingly consists in an incipient (initial) delimitation of its self-being from its anterior environment and the development of this independent self-being into an exclusively determined self. But the autopoietic event does not imply the standing still of the world. In the self-formation of the discrete self, its pre-given world—its antecedent world—develops itself into a world of the self's own, into *its* world, in which the self exists.

Modern process philosophy is for one thing characterized by the assumption of a primordial primacy of processes over things. According to this assumption, processes are the most primordial entities, the elementary building blocks of the world, from the specific collocation of which in each instance the givenness of objective things can first be accounted for. But the specifically modern character of process philosophy finds its particular expression in the positing of an ontological equiprimordiality of processes and subjects. Thanks to this assumed equiprimordiality, the elementary processes are not just events with an immanent teleological structure according to which an initial determination [*eine anfängliche Bestimmung*] develops itself towards a particular goal, prompted partly by external factors, partly from out of an inner specificity of form. Rather, the goal-oriented happening assumed here is explicated in modern process philosophy by means of the modern principle of subjectivity. Accordingly, the initial determination of a process is a determination just as much indebted to subjective activity as the concluding determinacy with which the respective process finds the fulfillment of its initial (incipient) determination. The incipient subject is accordingly in its incipient activity an unsatisfied striving that ultimately finds a definite fulfillment developed



from within itself. This fulfillment is the fulfillment of that which the thus-characterized subject of an incipient event was able and wanting ultimately to become and conclusively to be.

According to the ontological assumption of process philosophy summarized above, subjectivity is the elementary *life-form* of happening in its processuality, and processuality is the *history-form* of subjectivity. Human subjectivity and human historicity are to be conceived in terms of these elementary forms of what-is. In order to understand concepts appropriate to human behavior such as consciousness, will, and action, process philosophy requires a special system of categories which enables the construction of ever more complex connective structures—connective structures that can be developed out of the elementary life-forms and history-forms.<sup>12</sup> Human consciousness thus presupposes in its manifold forms of expression and configuration complex combinations of processes. It further presupposes in these combinations abstractions through which the manifold data in the processual happening are some of them separated out, others combined with one another, and still others transformed. The elementary combination of the life-form of subjectivity with the historical form of processuality constitutes that basic principle of process philosophy that was previously called the principle of creativity and distinguished from the traditional principle of creation. It is precisely through this interpretation of processuality as subjectivity that creativity is distinguished from causality. Not all events are as such completely determined. Not all interconnections among events are from the first absolutely determined through an inner or outer regularity of law. In process philosophy in the narrower sense, determination in the sense of complete and definitive determinacy is solely a limiting case of the possible connection of events.

Thanks to the basic principle of creativity, a possible occasion [*Anlass*] for the genesis of novelty is given with every new event, in view of the subjectivity dwelling within it. The possibility of strict determinism is thereby abrogated. The connective structure both within historical worlds and among various such worlds is determined by definite probabilities of combination. These probabilities have their ontological ground in the synergy of creativity and subjectivity occurring in the discrete processes interconnected in such structures. The synergy of creativity and subjectivity in the bringing about of novelty is more primordial than the efficacy of human freedom. Just as human consciousness presupposes a complex connective structure of events and subjective actions, so, too, human freedom presupposes the conditions of the possibility of the genesis of novelty in the respective world of the subject of action concerned. Human freedom is, incidentally, by no means restricted in its function to the

production of novelty. The capabilities and functions of human freedom are incomparably more complex and multifarious. Human freedom can be deployed not last for the preservation of the past and what is deemed valuable. But even this use of freedom presupposes a given world in which the genesis of novelty is possible and actual. Causality (in the sense of law-conforming determination) and human freedom do not constitute opposites that unconditionally exclude one another. Both the one and the other belong to the broader and more encompassing realm of the possible efficacy of creativity and subjectivity. Consequently, causal operations can be distinguished according to how much room they leave for the genesis of novelty and furthermore according to the manner in which they permit such leeway. A philosophical theory of creativity thus requires the construction of a system of categories that makes intelligible the possibility of such differentiated types in the formation of causal efficacy. In such a theory, the possibility must be recognized that subjective behavior may in one way or another be able to withdraw from the immediate influence of causal factors. Such a theory must take account of the plethora of possibilities for the conformal and non-conformal behavior of subjects involved in processual complexes. With the increasing intricacy of what happens [*des Geschehens*] and the growing complexity of subjective behavior not only do the possibilities for non-conformal behavior grow, but thereby also the possibilities of increasing tension between conformality and non-conformality, which threatens the stability of existing structures of interconnection among events.

The traditional theory of Ideas, which we owe to the process philosophy of Plato, receives a new construal in modern process philosophy and not last in the context of the modern connection of creativity and subjectivity just described. The difference between, on the one hand, the fundamental relationships of the general and the particular and, on the other, the universality of highest genera (which transcend those fundamental relationships) is something that was already known to Plato in framing his theory of Ideas. And also known to Plato were the displacements in the reference of such fundamental relationships when their primordial reference to concrete events of motion is subject to change.<sup>13</sup> What modern process philosophy introduces as a novelty in the theory of universals hinges, first of all, on the ontological devaluation of objective things in favor of elementary processes. A new categorial-ontological status is thus demanded of Ideas as equiprimordial entities: one that is no longer oriented towards putatively primordial relationships of things and properties. Universals thus lay claim to an ontological status more primordial than that of properties, which are to be discovered and observed on things. Prior to any such ontological determination and its logical use as predicate in a

proposition or propositional function, a more primordial connection of Ideas with the elementary processes must be assumed. This can be seen in the form in which universals are connected to those relations that were previously called internal. The traditional theory connects universals—in the form of general concepts—primarily to external relations. For modern process philosophy, internal relations are partly the concrete relations of a process to the processual world given to it, partly the relations between it (the process) and Ideas, partly the relations between Ideas themselves. From the viewpoint of the ontological equivalence of subjects and processes, these internal relations can also be thought of as subjective modes of behavior. In Whitehead's process philosophy, which plays a prominent role among the diverse forms of such philosophy, these internal relations are terminologically specified as *prehensions*. The relevant categorial and ontological connection of universals with such prehensions (or internal relations of processes) must not be misconstrued in the sense of modern nominalism. For nominalism, the universals in question are abstractions, more exactly: they are abstractions that abstract the properties of things and express them in linguistic designations. It is precisely from modern nominalism that modern process philosophy, in regard to its theory of universals, distinguishes itself.<sup>xviii</sup> But the difference concerns not only the secondary ontological status of things and properties. Rather, it also touches directly on the fundamental relationship of concretion and abstraction in both theoretical and practical respects.

The modification of the meaning of concrete and abstract in modern process philosophy consists, for one thing, in the direct involvement of concretions and abstractions in the processual event. Thus, the given concretions and abstractions derive from the actuality of a certain particular event, from the efficacy of the subjectivity that inhabits it. The second modification to which this primal relationship is subject can be delineated as an extension in the scope of the differences between the concrete and the abstract. That means that there are very many more categorial types of the concrete and the abstract than the traditional substance and thing ontology wanted to believe. Thus, for example, there are, along with particular, individual processes, also complex structures interconnecting processes, the concreteness of which is in no way inferior to that of the individual processes. Every such structure represents for its indwelling subjects a concrete world, which possesses a definite—even if not easily determinable—width and depth. Such a world evinces a definite structure, the pattern of which cannot be adequately described simply by means of a particular combination of properties.<sup>xix</sup> Regarding the events that make up its actuality, a historical world derives from their growing together into the definite concretion of this world, *i.e.*, from the synergy of the subjects

involved in this happening. Abstractions are the result of partial events or of special subjective activities. But in this connection we must distinguish between activities that are objectively present as abstractions from a concrete event and abstractions that derive from such an abstract activity.<sup>xx</sup> Things and their qualitative determinations derive their abstract ontological status from an abstract and abstracting activity, and they thus presuppose abstractions as the condition of their own abstractness. This is true even for the case in which subjects are viewed as sorts of objective things. In such a view, not only a concrete, but also an abstract subjectivity is presupposed. When such a viewing occurs, the specific interiority, the private life that constitutes a concrete subject, is either reduced or, on the basis of another, different subjectivity, extinguished. Now the noted modification of the fundamental relationship of concretion and abstraction in modern process philosophy plays itself out especially in the theory of Ideas (or the theory of universals). It follows as a consequence of this modification that in the philosophical tradition and even in traditional process philosophy Ideas (or universals)—as much in respect of their concretion as in respect of their abstract status—have always been underdetermined.<sup>xxi</sup>

## 4. Universals as Possibilities

The modification of the fundamental relationship between concretion and abstraction in modern process philosophy hinges on the previously-noted transcending of any particular relationship of generality and particularity. An idea in its universality is both more concrete as well as more abstract than any such relationship of concepts. An Idea is the former (more concrete) as a constitutive moment within a processual event in that it participates immediately in the concretion of the event, *i.e.*, in the concrete subjective activity within it. In reference to the Idea, the subjective activity inhabiting a concrete event can be called thinking.<sup>14</sup> The Idea is thus the most primordial moment of thought-activity. Inasmuch as subjective activity in an event can for its part be more or less abstract, the same holds true of the activity of thinking. For process philosophy, in contrast to modern nominalism, the Idea is the moment of concretely possible thought-activity within an event.

Just as important as this concretion of the Idea is its ontological constitution as an abstract *abstractum*. In its ontological status an Idea is more abstract than the property of a thing, more abstract even than the property of a thing lacking express reference to a particular thing (that is, a *quale* as such). It is a mode, the “sort and manner” of a quality, without

being fastened to one. Whitehead used the term “non-entity”<sup>xxii</sup> to characterize this extremely abstract status of universals. This seemingly paradoxical designation becomes intelligible if one considers that not every *something* has to be without question an entity. The possible interconnection of an indefinite plurality of *somethings* is distinct from the interconnection of entities of a definite type.

The preeminent meaning of universals in process philosophy lies in their functional determination as possibility. An Idea is a possibility of being: the possibility of an event; the possibility which a subject within an event [*innerhalb eines Geschehens*] *thinks* in that it makes a given possibility its own or rejects it; the possibility of a modification of a possibility; etc. An Idea is concrete as the possibility of a concrete event to realize itself according to this possibility or on the basis of a modification of this possibility. And, in view of the concrete subjectivity that inhabits such a concrete event, that means: the thinking of a possibility in the realization of which the respective subject finds its fulfillment. The most extreme abstractness of the Idea lies in its universality, which transcends any particular relationship of general and particular and, moreover, any particular realization of itself in a particular event or historical context. A discrete Idea, purely as such, represents an abstract *abstractum*. It is a universal insofar as it represents for every possible historical world a possibility of realization, without being realized in any particular concrete historical world.

Universals acquire their preeminent function as concrete and abstract possibilities through the principles of processuality and subjectivity as well as through the principle of creativity. The first two principles are in their correlation principles of reality. By contrast, creativity is a basic principle of order—more exactly, a principle of the ordering of possibilities. The unities of historical structures of interconnection derive not last from the principle of creativity. They are based upon orders that differ in respect of the extent of their strictness and degree of their stability. Where possibilities are given, both realized and unrealized, corresponding impossibilities are also given. Consequently, there emerges with every process, with every processual event, a relational mesh of possibilities and impossibilities, which is more or less concrete, more or less abstract. In direct relation to a particular processual event there is much that is from the outset prevented from realization and thus represents an impossibility for this event. Other data [*Gegebenheiten*] present themselves first as possibilities that prove to be impossibilities only in the course of the event’s development, or in some cases only at its conclusion or possibly only retrospectively from the vantage point of another event. And then,

finally, there are those peculiar events whose development runs backwards. Here it is revealed unexpectedly in the course of a process how an impossibility becomes a possibility, whether it becomes an open, unconcluded and unrealized possibility or even a realized one. Such an unusual development permits us to speak of the realization of the impossible.<sup>15</sup> The relational mesh of possibilities and impossibilities, which appears in every concrete event, is arranged for its part in contrasts of concrete and abstract possibilities, which make up the order-structure of this event in regard to the historical world that surrounds it.

Valuations are bound up with a concrete event's contrasts of possibilities and impossibilities. It is the subject of such an event that is occupied from the outset with these valuations. It values in that it takes up or abjures the possibilities presented to it, and through behavior of one sort or another takes in stride the corresponding impossibilities. The determination of novelty represents a particular evaluation of the realization of a definite possibility on the basis of the principle of creativity. The value of novelty can be ascertained from the comparison of distinct phenomena in which a change, a break in continuity, or a revolution in the structure of events is effected. Evaluations of such realizations differ regarding the extent of their thoroughness.

The theory of universals has been sketched here in the context of modern process philosophy. It is nothing more than a sketch. And the process philosophy that has been described in this connection is more just a schema or blueprint for such a philosophy than a concrete form of it. In such a concrete form numerous additional interpretations as well as, consequent to these, certain reinterpretations would be unavoidable. Only such additional expositions would permit a precise grasp of the problems that an elaborated process philosophy involves. Among the problems so posed would be: to what extent does process philosophy provide a unified foundation for the philosophy of nature and the philosophy of culture? To what extent does process philosophy succeed at overcoming the inherited Cartesian dualism of corporeal and mental things? Is process philosophy able to ameliorate the contemporary estrangement between science and the human being's everyday experience?

In addition, there are philosophical questions that concern the ontological status of the basic concepts and basic principles of this philosophy: is process philosophy a definite type of "fundamental ontology," or are its basic concepts meaningful only when used—that is, applied—in this or that domain of objects? Are these concepts employed exclusively with heuristic intent? The theory of universals brings with it scarcely less important questions: what to make of the asserted functional determination of

universals as possibilities? Is it appropriate to embed these possibilities in a conceptual structure organized around the difference between the concrete and the abstract as its critical parameter? And not last we encounter the problem connected with the indefinite multiplicity of possible and actual orders. On this assumption, how is the unity of our world thinkable and wherein is the human being's universal directive for the use of practical reason to be grounded?

Among the fundamental questions that come up here belongs also the question raised by Nicholas Rescher in his *Process Metaphysics*: whether process philosophy has to assume the emergence of novel universals.<sup>16</sup> A provisional answer to this question is given in the present sketch through the delineation of novelty as the subjective evaluation of the realization of a definite possibility. But this answer is, unavoidably, as provisional as the preceding presentation of process philosophy and the related theory of Ideas. A critical examination of Rescher's theory of universals requires, in effect, an in depth examination of his whole conception of process philosophy. Without being able to broach the particulars, the present analysis reaches the conclusion that Rescher's thesis that novel universals must come into being is indeterminate in view of the diverse types of universals. In regard to the *traditional* understanding of universals, the thesis that novel universals must come into being would lead to an antinomy.

*Translated by Anderson Weekes*

## Notes

This paper has been originally written for this volume. In the meantime, a German version has been published with the title “Prozessphilosophie und das Universalienproblem” in G. von Sivers and U. Diehl (eds.), *Wege zur Politischen Philosophie. Festschrift für Martin Sattler* (Würzburg 2005), pp. 181-196.

1. On the history of process philosophy, see M. Hampe, “History of Process Philosophy: Problems of Method and Doctrine,” in M. Weber (ed.), *After Whitehead* (Frankfurt/Lancaster 2004), pp. 77-93.

2. A salient symptom of the incorporation of the Aristotelian theory of motion into process philosophy is the translation of the Greek term *kinēsis* by the term “process” [*Prozess*] in H. Wagner’s rendering of Aristotle’s *Physics*. See *Physikvorlesung, Werke in deutscher Übersetzung*, Vol. XI (Darmstadt 1983), p. 294.

3. From this vantage point should be read the famous comment of A. N. Whitehead that the whole of European philosophy consists in a series of footnotes to Plato. See *Process and Reality. An Essay in Cosmology*, corrected edition, edited by D. R. Griffin and D. Sherburne (New York 1978), p. 39.

4. G. W. F. Hegel, *Wissenschaft der Logik. Zweiter Band: Die subjektive Logik, Gesammelte Werke*, Vol. XII, edited by F. Hogemann and W. Jaeschke (Hamburg 1981), pp. 187ff.

5. For this distinction the classical author is Immanuel Kant. See the chapter “Von den Ideen überhaupt” [“On Ideas in general”], *Kritik der reinen Vernunft, Gesammelte Schriften*, Vol. III (Berlin 1904), pp. 245ff. (=B 368ff.).

6. In this sense Whitehead called creativity the “universal of universals” (*Process and Reality, op. cit.*, p. 21). On the philosophy of Whitehead see B. Saint-Sernin, *Whitehead. Un univers en essai* (Paris 2000). A good overview of the meaning of the principle of creativity in the natural and cultural sciences is to be found in R. Holm-Hadulla (ed.), *Kreativität. Heidelberger Jahrbücher* 44 (Heidelberg 2000).

7. See chapter X (“Abstraction”) of Whitehead’s *Science and the Modern World* (New York 1967).

8. See the writer’s “Aktualität und Extensivität in Whiteheads Kosmo-Psychologie,” *Subjektivität und System* (Frankfurt 2000), pp. 320-373.



9. See E. Cassirer's *Substanzbegriff und Funktionsbegriff. Untersuchungen über die Grundfragen der Erkenntniskritik*, *Gesammelte Werke*, Vol. VI (Hamburg 2000), pp. 334ff. and 353ff.

10. I use this expression in allusion to the title of the book by U. Guzzoni, *Werden zu sich. Eine Untersuchung zu Hegels Wissenschaft der Logik* (Freiburg/München 1963).

11. It would be still more precise to distinguish here between autopoiesis and self-organization or self-reference. See N. Luhmann, *Die Gesellschaft der Gesellschaften* (Frankfurt 1997), pp. 64ff.

12. See the writer's "Zum Problem der Komplexität in den Systemtheorien Whiteheads und Luhmanns," *Subjektivität und System*, op. cit., pp. 374-392.

13. *Sophist*, 251b-257c.

14. A sketch of the ontological relationship of thought and time can be found in C. Wolfgang, *Grundlegung einer Theorie des Geistes* (Frankfurt 1975), pp. 11ff.

15. See R. Wiehl "Die Verwirklichung des Unmöglichen," *Selbstorganisation* 7, 1996, pp. 71-87.

16. See chapter 4 ("Process and Universals") of his *Process Metaphysics. An Introduction to Process Philosophy* (Albany 1996), especially p. 82.

## Appendix: Translator's Notes

Translating Professor Wiehl's short but dense paper was not without its challenges, and I would like to express my gratitude to Professor Wiehl and to Dr. Bernd Weidmann for their generous and always congenial assistance. The paper provides a highly abstract examination of the nature of abstraction. The reader should know that I have in many places made the translation less abstract than the original, but that in every case these clarifications have been carefully vetted with the author and bear his approval. The same cannot be said for these footnotes, for which I bear sole responsibility. I can only hope they will provide more help than hindrance in understanding the text. A more systematic attempt on the part of the translator to illuminate this undeniably difficult text can be found in section one of my contribution to this volume, "Abstraction and Individuation in Whitehead and Wiehl: A Comparative Historical Approach." The reader should bear in mind, however, that those comments do not reflect an authorized interpretation any more than do the scattershot of suggestions in

these footnotes. They represent a speculative attempt to understand Professor Wiehl's argument in light of his earlier essays on Whitehead and the texts they seek to interpret.

I. Because meaning and sentence construction require the German participle *Seiendes* to have a verbal rendering in English as well as a nominal one, the translation employs "what-is" or "what [modifier] is" for the former, and "beings/a being" (but never "being") for the latter.

II. In this translation *Geschehen* is given both a verbal rendering as "what happens" and a nominal rendering as "event/happening/happening of events/eventuation" depending on the meaning of the German and the requirements of English syntax.

III. The argument in this paragraph is quite elliptical. The idea seems to be that *thing* and *motion* are not quite compatible as coordinate, fundamental categories. The Eleatics showed that the reality of things implied the impossibility of motion and the reality of motion or change implied the impossibility of things. The attempt to countenance both at the same ontological level thus leads inexorably to phenomenalism about one or the other and hence to skepticism.

IV. The author explained that he has deliberately left it open whether Aristotle's substantial forms or the Prime Mover should be understood here.

V. On the question of why valuations are involved in the conceptual structure of the hierarchy of universals, the reader may wish to consult Wiehl's essay "Prozesse und Kontraste. Überlegungen zur Ästhetik," *Zeitwelten. Philosophisches Denken an den Rändern von Natur und Geschichte* (Frankfurt 1998). A value parameter is involved, for example, whenever there are differing degrees of determinacy and indeterminacy, order and disorder, significance [*Prägnanz*] and redundancy, agreement and disagreement, or univocity and ambiguity (*ibid.*, pp. 90ff.)

VI. As the author indicates in footnote 7, he is thinking here of Whitehead. The idea of an "open hierarchy" is singularly important in Whitehead's thought. It makes its first appearance in his early works on mathematics and natural philosophy in the theory of "extensive abstraction" (by means of which he defines mathematical objects such as points) and then features prominently (under the title "infinite abstractive hierarchy") in the definition of what it means to be concrete or individual (an "actual occasion") in *Science and the Modern World*; it reappears in *Process and Reality* in the Theory of Extension of Part IV.

VII. The text is laconic. An example of hierarchies open in the upward direction might be the infinite abstractive hierarchies Whitehead introduces

in the chapter on abstraction in *Science and the Modern World*. Whitehead makes an illuminating comment about this concept: “The existence of such an infinite abstractive hierarchy is what is meant by the statement that it is impossible to complete the description of an actual occasion by means of concepts” (*Science and the Modern World*, *op. cit.*, p. 169). Because the qualitative specificity, complexity, and nuance of an actual individual can never be exhausted by a finite description, its associated hierarchy is infinite in the upward direction: the description of it would go on forever, adding specifics, qualifying them, qualifying the qualifications, *ad infinitum*. And this is what it means to be individual, rather than universal. Individual means to be infinitely complex or nuanced. We could say then that the infinite abstractive hierarchy *transcends universality* because it *constitutes* (or *defines*) *individuality*. An example of hierarchies open in the downward direction would seem to be the abstractive classes generated by the method of extensive abstraction presented in *Principles of Natural Knowledge*, *Concept of Nature* and Part IV of *Process and Reality*. The abstractive class is a series of nested regions, diminishing in extent, but having no last member. The abstractive class illustrates what Whitehead calls the Principle of Convergence to Simplicity with Diminution of Extent. By focusing on smaller and smaller regions, we find that (an approximation to) an adequate description of its content needs to be less and less complex: although the series does not converge to a limit, the properties of the content do. These limit properties will be the universals Whitehead calls simple eternal objects. We could say then that the abstractive class *transcends individuality* because it constitutes abstractness through convergence toward an ideal or counterfactual simplicity. In other words, it *transcends individuality* because it *defines the greatest possible universality*. The interpretation is far from certain. The translator explores further the line of interpretation tentatively suggested here in his own contribution to this volume.

VIII. The contrast can be drawn sharply by means of the Platonic notion of participation. According to the one alternative, evanescent events, by participating in Ideas, yield stable things. According to the other, stable things, by participating in different Ideas over time, yield change and motion, that is, things with changing properties.

IX. On the distinction between the two kinds of transcendence, the reader may wish to compare corresponding passages in the author’s essay “Prozesse und Kontraste,” *op. cit.*, and in chapter X (“Abstraction”) of Whitehead’s *Science and the Modern World*. The first type of transcendence seems to correspond to the kind of universality or abstractness Whitehead describes on p. 158; the second type of

transcendence seems to correspond to the kind of universality or abstractness he describes on pp. 169ff. These seem to correspond in turn to the *second* and *third* types of abstractness the author distinguishes on p. 73 of “Prozesse und Kontraste.” The gist appears to be that universals are transcendent (or abstract) in the first sense of transcendence because they can be *multiply instantiated*. Each universal (or complex description consisting of universals) will thus transcend any particular instance the way the possible transcends the actual (since it is always *capable* of multiple instantiation). Accordingly, a more detailed description of something is not any less abstract, in *this* sense of abstract, than a less detailed description. In *this* sense the whole hierarchy of concepts is abstract, from its first to its last member. But a complex description employing universals is transcendent in the second sense of transcendence when it falls short of a *complete description* of the qualitative specificity of an individual, and the more it falls short the more abstract it is. In *this* sense it can be said that a more detailed description is less abstract. But no description will ever achieve full concretion. According to Whitehead “it is impossible to complete the description of an actual occasion by means of concepts” (*Science and the Modern World*, *op. cit.*, pp. 169ff.). Accordingly, no matter how detailed, no description employing concepts alone will ever be sufficiently nuanced to be able to pick out an actual individual uniquely, and it will thus be transcendent in the second sense.

X. The traditional controversy over the nature and status of universals was concerned exclusively with the predicables of genus and species (that is, terms or concepts classified as the genus or species of something). It is the second sense of transcendence that is relevant to this debate because it is in this second sense that the genus transcends the species and the species transcends the individual.

XI. Professor Wiehl appears to assume here that classification in terms of genus and species applies only to *things* in the sense of stable entities sustaining a manifold of enduring properties. Since classification is based on similarity and difference, whatever is classified must sustain such comparative relations. This certainly implies a manifold of properties. For example, an item classified must have minimally *one* different property of similarity and one different property of dissimilarity to other items in the classification for *each* level of its remove from the highest genus. Does this mean the ultimate items must be enduring things? It is not immediately clear why this has to be case.

XII. The reader is advised to consult the index of the corrected edition of *Process and Reality* for passages relevant to the concepts of “depth” (“narrowness”) and “width.” Especially important in this regard are pp.