

# Whitehead's onto-epistemology of perception and its significance for consciousness studies

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## Abstract

The question of how “inner” states can be elucidated with reference to external phenomena receives, within Whitehead's coordinates, a twofold answer. First, a macro-analysis spelling out the characteristics of everyday perception and conceptualizing its conditions of possibility. Second, a micro-analysis questioning the ontological background of what is phenomenologically given. The conclusion underlines the main consequences of panexperientialism for Consciousness Studies.

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## 1. Introduction

One of the main questions in current debates in philosophy and in psychology—how “inner” states can be elucidated with reference to external phenomena—receives, within Whitehead's coordinates, a rather innovative answer which can be unfolded in two complementary phases. First, a macro-analysis spelling out the characteristics of everyday perception and conceptualizing its conditions of possibility. Second, a micro-analysis questioning the ontological background of what is phenomenologically given. We will see that Whitehead is always struggling to avoid any bifurcations within philosophy or between the “cognitive” territories of philosophy, science, and religion... A first consequence is the replacement of the classical distinction between epistemology and ontology by the articulation of macroscopic and microscopic analysis. The conclusion underlines the main consequences of panexperientialism for Consciousness Studies.

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### 1.1. Whitehead's legacy

In the European philosophical landscape,<sup>1</sup> Whitehead is like a ghost who has a great impact each time he appears—let us think for instance of Bergson, Jonas, Merleau-Ponty, Deleuze, Prigogine and Stengers. But he very seldom does appear, and still remains so to speak in scholarship limbo. Hence his vision is usually caricatured: even amongst the “specialists” in his philosophy, one can spot here and there the silent development of a scholasticism. In other words, his philosophical motivations are given less consideration than the coherence and consistency of his apparatus of technical categories; ready-to-wear strings of concepts take the place of reconstructing their interanimation.

A speculative vision is always difficult to tame. There is no way to break into a philosophical system; putting oneself in unison with an author requires the inner activation of his or her algorithm in order to let its categories freely mobilize their meaning. This is especially true in the case of Whitehead, who attempts a strange ontological revolution that has been presented as a “process philosophy” or a “panexperientialism.” The latter term, coined by Griffin (1977), has the merit of straightforward (if not clear) suggestiveness: everything that *is* experiences; everything that *is* is in virtue of its experience itself; nothing actual can be unexperiencing. (James’ radical empiricism is definitely not far off: “Everything real must be experienceable somewhere, and every kind of thing experienced must be somewhere real”—James, 1912, p. 160). The term “process philosophy,” probably coined by Bernard MacDougall Loomer (Weber, 2004b, p. 44), is broader and has been applied retrospectively to thinkers such as Heraclitus, Leibniz, Hume, Schelling, Peirce, and Nietzsche (see, for instance, Deleuze, 1988; Hartshorne, 1984; Hartshorne & Reese, 1953; and Rescher, 1996, 2000).

For his part, Whitehead speaks of a “reformed subjectivism” that he bases in a *reformed subjectivist principle* (PR166) that de facto sets his panexperientialism in motion. Fully aware of the difficulty of the concepts that have nourished the philosophical tradition, he avoids using them as far as possible. The philosopher nevertheless speaks of “organic realism” (and more often of “organic philosophy”) to suggest the organic structure and ontological *thickness* of the World. There are “stubborn facts” that arise “from without us.” He is of course not the first to use the organic image; the Romantic stream is there to testify that the meditation on the human’s Being-in-the-World willingly builds upon the organic. But in his case, there is a radicalization of the process perspective: what matters is to understand how *genuine novelty* can burst forth in the World without making it fly into pieces. Spontaneity is pristine; even temporality is subsidiary to it.

Our author feels both closely related and completely foreign to Spinoza. His system has a monistic trend because only one kind of “occasions of experience” (Whitehead also says “actual entities”) is appealed to; and because of the all-embracingness of the category of “creativity,” the nucleus of the “Category of the Ultimate” (itself the focal point of PR’s categorial scheme). Although only differences of degree are used to name the various guises of “creativity,”<sup>2</sup> this monism has nevertheless to be qualified—so much so that Whitehead uses the concept of monism only derogatorily: for him, it connotes first and

<sup>1</sup>We are not addressing here the American and/or theological one.

<sup>2</sup>For the time being, we are steering clear of the important distinction between “actual entity subject” and “actual entity object”, as well as the question of the “eternal objects” and the problem of the development of his concepts of “God.”

foremost a static and deterministic (i.e., closed) universe (PR137). His system is *pluralist* because of the idiosyncrasy of each and every event, i.e., of every experiential *hapax* contributing to the open universe (PR79, PR73–74). Finally, let us notice that his pluralistic realism (PR78) implies a strong relativism (PR148).

How can “inner” states be elucidated with reference to external phenomena? The Whiteheadian answer can be unfolded in two complementary phases. We will benefit from sketching first his epistemology and second his ontology. But we already need to pinpoint that Whitehead is always struggling to avoid “watertight compartments” (PR10) among any of the fields defining the gnoseological patrimony of humanity. Consequently the classical distinction between epistemology and ontology is replaced with the articulation of macroscopic and microscopic analysis (PR128–129). The former is rather phenomenological; the latter enters metaphysical territory by formulating the rational requirements of the creative advance. The most straightforward way to sketch the creative advance is to evoke its three complementary functors: creativity, efficacy and vision. *Creativity* basically means the irruption of the unheard, the beginning of a new causal chain. In common philosophical parlance, it refers to becoming, difference, discontinuity. *Efficacy* basically means the reproduction of patterns. In common philosophical parlance, it refers to being, continuity and determinism. *Vision* basically means an eschatological horizon, a melioristic trend. In common philosophical parlance, it refers to God. The overall picture is thus an eschatological growth.

To facilitate comparison with other conceptions of mind and consciousness, the following should be said: (i) Whitehead’s concept of consciousness is speculative, i.e., it is a broad framework that requires specific input to actualize its applicability (cf., e.g., our clinical exemplification at the end of the macro-analytic section); it seeks to show how all dimensions of our conscious experience can be systematized. (ii) Whitehead would have welcomed all contributions, provided of course that they were compatible (or could be made so) and that they kept room for—better yet, extended a welcome to—the experience of value and of meaning. (iii) Panexperientialism provides new ways of looking at ontological puzzles that result only from a precommitment to simple-minded dualism. (iv) The interactivist treatment of knowledge and consciousness seems fully compatible with Whitehead’s organicism; of course their respective categories are not directly transferable and (local) applicability is gained at the expense of (global) adequacy.

## 1.2. *Macroscopic analysis*

An excellent introduction to Whitehead’s *Weltanschauung* in general, and his epistemology in particular, can be found in his Barbour-Page Lectures of 1927, published under the title of *Symbolism: Its Meaning and Effect*.<sup>3</sup> One discovers there how his views marry elegant simplicity and acute applicability. Our experience, he claims, has three main modes, “each contributing its share of components to our individual rise into one concrete moment of human experience” (S17). Two of these modes are perceptive, and the third one

<sup>3</sup>The conclusions of S are synthesized in PR, mainly on pp. 117–125 and 168–183. Although PR houses the key to Whitehead’s conceptual revolution, its reading will probably be fruitful only if it comes after the contemplation of less technically dense material. Besides S, FR, AE and MT, the reading of Price’s *Dialogues* is highly recommendable (and it is a very interesting question, indeed, to determine why exactly some scholars have dragged that work in the mud...).

names the interplay between the former. The goal is to save “appearance” and “being,” opinion and science.

In respect to “pure (sense-)perception” (cf., e.g., S5, 40 and also 17, 20, 53–56; PR168) or “direct recognition” (S7 and passim; PR65, etc.), the philosopher distinguishes “causal efficacy” and “presentational immediacy,” both constituting an objectification of the existing world (Whitehead is a realist). On the one hand, in “perception in the mode of causal efficacy” we “conform to our bodily organs and to the vague world which lies beyond them” (S43). In other words, we undergo the pressure of an external world which is both determined and *past* (S44, 50, 55 and PR178). That heavy and primitive experience (S44) brings to the fore the meaning of our embodiment (the “withness of the body,” as he will later call it), which is to deeply root us in the World. On the other hand, “perception in the mode of presentational immediacy” delivers a clear and distinct image of the *contemporary* world. An instantaneous cut-out *presentifies* reality (renders it present) as an extensive pattern: determined items localized in a spatio-temporal continuum. This projection, in our present, is achieved with the (past) data delivered by causal efficacy. Its paradigm is vision and the coldness of its objectification: to locate is the act of sight itself. The intrinsic natural processuality is here obliterated; the World becomes stiff and lifeless, a mosaic of qualities spread out in front of an acosmic subject.<sup>4</sup>

Two interesting contrapuntal speculations would be worth exploring. On the one hand, there is the noteworthy similarity between Whitehead’s bipolarity of causal efficacy and presentational immediacy and James’ distinction between fringes and nucleus of experience. In both cases, there is a strong emphasis put on the virtues of “vague, haunting, unmanageable” (S43, cf. S57) presences and “vague but insistent” (S73) meanings. “Reality, life, experience, concreteness, immediacy, use what word you will, exceeds our logic, overflows and surrounds it. [...] I prefer bluntly to call reality if not irrational then at least non-rational in its constitution, —and by reality here I mean reality where things *happen*, all temporal reality without exception.”<sup>5</sup> This fundamental issue is dramatically highlighted by the ontological atomicity that constitutes the main support of Whitehead’s late speculations.

On the other hand, it would be useful to clarify the claims that Jonas makes in his study of the impact of the metaphor of vision on the history of Western philosophy (a study that, interestingly enough, might have been directly spurred by Whitehead’s own insistence on the issue<sup>6</sup>). The visual metaphor imposes the idea of a *spectator-subject* factually unaffected by the scenery or by visceral awareness (Jonas, 1966). Jonas takes the three essential characters of vision to be: *simultaneity* of the data presented (an instant-like coordinated picture), *neutralization* of the causality of sense-affection (a frozen, non-relational, perspective), and *distantiation* in the spatial and mental senses (a totally passive onlooker independent of all mundane contingencies).

To summarize Whitehead’s claim in his own words:

It is the thesis of this work that human symbolism has its origin in the symbolic interplay between two distinct modes of direct perception of the external world.

<sup>4</sup>“Une mosaïque de qualités étalée devant un sujet acosmique” (Merleau-Ponty, 1945, p. 359; cf. 1964, p. 78).

<sup>5</sup>James (1909, pp. 212–213). The concept of “non-rational” is fundamental in pragmatic philosophy; cf. Weber (2004a,b).

<sup>6</sup>Jonas (1974, pp. 224–236). With regard to our contention that Jonas has been lured into that critique by his acquaintance with Whitehead, see Jonas (1987).

There are, in this way, two sources of information about the external world, closely connected but distinct. These modes do not repeat each other; and there is a real diversity of information. Where one is vague, the other is precise: where one is important, the other is trivial. But the two schemes of presentation have structural elements in common, which identify them as schemes of presentation of the same world. There are however gaps in the determination of the correspondence between the two morphologies. The schemes only partially intersect, and their true fusion is left indeterminate. The symbolic reference leads to a transference of emotion, purpose, and belief, which cannot be justified by an intellectual comparison of the direct information derived from the two schemes and their elements of intersection. (S30–31).

Neither of the two pure modes can be judged true or false, only their confrontation can. Aristotle saw it already: truth and falsehood are not “in” things, but in the synthesis operated by the mind.<sup>7</sup> In order to explain perceptual errors and other, more positive, degrees of freedom humans can enjoy with facts, Whitehead introduces “symbolic reference,” which is the synthetic activity whereby the two pure modes are “fused into one perception” (S18). To mistake a square tower for a round one is to misinterpret what is actually given to us: although what is seen is undoubtedly a roundish object, the tower is indeed square and this fact cannot but be conveyed by causal efficacy. “Direct experience is infallible. What you have experienced, you have experienced” (S6). The mistake lies in the *conscious judgment* claiming that this tower *is* round.

Whitehead’s answer to Hume (and Descartes) is thus the following. Although it is with good reason that the Scot criticizes perception in the mode of presentational immediacy, his reduction of all possible perception to sensory perception (restricted to the five senses) is sophistic.

We have already done violence to our immediate conviction by thus thrusting the human body out of the story; for, as Hume himself declares, we know that we see by our eyes, and taste by our palates. But when we have gone so far, it is inevitable to take a further step, and to discard our other conviction that we are perceiving a world of actual things within which we find ourselves. For a barren, extensive world is not really what we mean. We thus reduce perceptions to consciousness of impressions on the mind, consisting of sense with “manners” of relatedness. We then come to Hume, and to Kant. Kant’s philosophy is an endeavour to retrieve some meaning for the two convictions which we have successively discarded. We have noted that Locke wavers in his account of perception, so that in the earlier portion of his *Essay* he agrees with Hume, and in the later portion with the philosophy of organism. We have also noted that Hume is inconsistent to the extent of arguing from a conviction which is discarded in his philosophy. (PR122–123).

Hume’s obliteration of causal efficacy has undoubtedly cleared the way for dereliction. Everyday modern consciousness has lost the sense of derivation from the body: “The contrast between the comparative emptiness of Presentational Immediacy and the deep significance disclosed by Causal Efficacy is at the root of the pathos which haunts the world” (S47). Of course, the worm was in the fruit: the body has specialized itself in order

<sup>7</sup>Cf. S19, PR180; and *Metaphysics*, E.

to become “transparent” to external stimuli—“normally, we have almost negligible sense-presentations of the interior organs of our own bodies” (S45).

In sum, Whitehead correlates consciousness with symbolic reference; i.e., with a comparative rationalization operating on past data. If we put between brackets one single occurrence that seems to be a slip of the pen (S19), consciousness is never predicated of the direct modes of cognition and always of the symbolic synthetic activity. Symbolic reference is a “conscious analytical recognition” (S10, 46–47, 55), a synthetic activity of analysis (S17–18) that phenomenalizes the world with the help of “complex coherent judgments” (S38). “The result of symbolic reference is what the actual world is for us” (S18). Consciousness steps back from direct experience, allowing for more flexible—creative—responses but possibly leading to “irresolution in action” (S42) as well as “affectation”; i.e., the death of “natural grace” (Kleist, 1982). Before concluding this section, let us look, on the one hand, at the evidence Whitehead manipulates and, on the other, at the contemporary debate with respect to these issues.

The concept of “withness of the body” does not occur either in Whitehead’s corpus before his Gifford Lectures or after them, but it is essential to evoke it in this macro-analysis (which focuses otherwise on *Symbolism*). The territory of PR being mainly ontological, the concept crystallizes meanings articulative of the macro and micro perspectives (remember our introductory statement on the requirement of not bifurcating the natural realm). The body is not only the starting point of our knowledge of the world (it mediates our perception of all events), it is the most primitive perception we have. Macroscopically speaking, the withness of the body could be approximated with the concept of *cœnæsthesia* because it names the *synergy* of the different perceptive modes Sherrington has identified. Three complementary sets of sensory receptors have to be distinguished (Sherrington, 1906, 1940).

*Exteroception* (commonly called “sense perception”) is constituted by the five senses open to the external world.

*Interoception* names the internal sensitivity complementing the exteroceptive one. Most of the time, its messages, coming from receptors housed by all organs and tissues, do not “reach” consciousness: they are, through reflex action, the source of a harmonious bodily life. One can distinguish internal pains (headache, colic...), internal taste (chemical sensitivity ruling various reflex activities), and internal touch (sensitivity to variations of pressure, like distension of the bladder or the rectum, stomach contractions, antiperistaltic contractions of the esophagus, accompanying the feeling of nausea). So, for instance, the entire intestinal motricity is neurally coordinated by the unconscious messages of receptors sensitive to distension.<sup>8</sup>

*Proprioception* names the messages of position and movement allowing, with the help of the internal ear’s semi-circular canals a spatialization —i.e., a full (ap)propriation— of the body. Proprioceptive perception grows from sensory receptors<sup>9</sup> delivering data about the position and the relative movements of the different parts of our body. Through reflex action, it regulates muscle tone and helps us to localize ourselves in space and to create a sense of depth (stereognosy). Proprioception also includes the muscular sensitivity that complements exteroceptive touch in offering estimates on the weight and volume of the

<sup>8</sup>Bergson (1959) alludes to these messages when he speaks of “sensations de ‘toucher intérieur’ émanant de tous les points de l’organisme, et plus particulièrement des viscères” (*L’Énergie spirituelle*, p. 91; in *Œuvres*, p. 883).

<sup>9</sup>Articular capsule, periosteum, tendons, joints, and muscles house sensitive corpuscles and nerve endings similar to those in the skin (see Sherrington, 1906, pp. 132–133; 1940, p. 309).

prehended or moved object. The structuration of our proprioceptive field provides for the fundamental organic anchorage of our identity. The witness of the body can be said to emerge out of the togetherness of all these perceptive modes.

So, through the massiveness of the experience of the “lived body,”<sup>10</sup> we undergo the pressure of external events. Whitehead, who was fully aware of the epistemological consequences of Einstein’s relativities,<sup>11</sup> understood very well that *perceived* (sense-presented) events are always, by definition, *past* events. Hence his visionary dialogue between the efficacy of the past and the immediacy of the present. Symbolic reference constitutes the backbone of “normal” consciousness and its peculiarities are worth considering from a clinical perspective. Three recent works are relevant to contextualize this process: those of Franz G. Riffert, Daniel C. Dennett and Marcel Kinsbourne, and Jason W. Brown.<sup>12</sup> We will linger only on the last one, which provides interesting points of contact with the philosophy of organism.

How could one find empirical evidence for Whitehead’s theory of perception? That very question has been recently addressed by Riffert,<sup>13</sup> who argues that causal efficacy is made especially obvious by experiments in the following fields: early childhood perception (Jean Piaget and Heinz Werner provide the marrow of his discussion), subliminal perception (Heinz Werner and Anthony Marcel are here in the hot seat), and physiognomic perception (Heinz Werner’s and Ulric Neisser’s decisive arguments are sketched). According to Riffert, in all cases, the existence of a primitive form of data reception (rather than perception) is demonstrated.

With Dennett and Kinsbourne’s (1992) intricate argument on temporal anomalies in consciousness (designed to support a “Multiple Drafts” rather than a “Cartesian Theater” theory of consciousness), the discussion takes a temporal turn that offers suggestive hints on what can be expected of a non-substantialist paradigm (Dennett and Kinsbourne underline the pioneering work of Pöppel, 1985, 1988).

But it is Brown who provides the broadest framework with the most sophisticated symptom-based approach. Let us give a quick synopsis of the microgenetic account of perception. Microgenetic theory is the outcome of clinical research based on the assumption that “the symptoms of brain damage represent *normal* stages in the microtemporal processing of cognitions and behaviors”<sup>14</sup>; i.e., they are a *direct path* to

<sup>10</sup>See Merleau-Ponty’s “*corps vécu*” (1945).

<sup>11</sup>Since he disagreed with Einstein’s substantialism (he was a bit of a Spinozist), Whitehead even proposed his own reformulation of general relativity (cf. R).

<sup>12</sup>Incidentally, Riffert, Kinsbourne, and Brown have all contributed (separately) to a volume (Riffert & Weber, 2002) that gathers two types of provocative communications: on the one hand, discussions of the present state of affairs in psychology; and, on the other hand, critical studies of the relevance of the imaginative generalizations of Whitehead for psychology or of the impact of contemporary psychology on Whitehead’s system of thought. The common denominator of all these inquiries is the process worldview understood in its widest sense—Hartshor-Rescherian, if you like—not a strict use of PR’s technicalities (although they were encouraged).

<sup>13</sup>Riffert (2002). The author mentions as well perceptual distortions in psychosis, in drug-induced altered states of consciousness, in brain pathologies such as dementia, amnesia, prosopagnosia, and aphasia. All these indeed seem fully compatible with Whitehead’s worldview; but do they really *demonstrate* the validity of vectorial prehensions?

<sup>14</sup>Brown (1988, p. 1). “(a) the demonstration that the symptoms of brain damage and psychopathology refer to ‘buried’ normal stages that are exposed prematurely. These normal states can be tapped, or accessed, by certain experimental methods, (b) the finding that symbolic operations, imaginary and other aspects of subconscious cognition are entrained at preliminary stages in the object development, (c) the finding that meaning is extracted prior to stimulus awareness, and (d) the demonstration that affective states occur in association with preliminary cognition” (Brown, 2002, pp. 5–6).

mental structure. In other words, symptoms are revealing patterns of normality: “pathology is not retroontology” (Brown, 2002, p. 5). This is Freud’s thesis reactualized through the works of Heinz Werner. Microgenesis is the basic pattern of the brain activity; it is a wave-like arborization of processes that unfolds from depth to surface, from an unconscious core to consciousness itself, i.e., from the upper brain stem to the neocortex. The usual substantialist paradigm is replaced by a process one: “things” are not “out there” waiting to be “discovered,” they arise. In the words of William James: “what really *exists* is not things made but things in the making. Once made, they are dead, and an infinite number of alternative conceptual decompositions can be used in defining them” (1909, p. 263). Microgenesis basically argues for two main theses: the *reversal* of the current cognitive-connectionist interpretation and its *rhythmization*.

It is a *reversal* of the cognitivist model because the “cognitive” flow runs from whole to features. Four levels, pacing the continuous transition from flux (where vagueness and complexity dwell) to processed representational stasis (displaying clear and distinct external objects), can be heuristically distinguished (cf. Brown, 2002, p. 63ff.).

Here we identify each level, its major characteristics and main correlated pathologies:

- (i) upper brainstem: pure (unfocused) wakefulness, without self-awareness or even mental content; the corresponding pathologies range from partial disruption of eye movements and misreaching to coma (Brown, 1988, p. 177ff.);
- (ii) limbic-temporal lobe: image awareness disclosing a plastic and shallow world; damage in these areas leads to impairment in object recognition, dream-like states, and hallucinations (cf. Brown, 1988, p. 183ff.);
- (iii) parietal cortex: object awareness (of an exteriorized, i.e., spatialized world featured with stable entities) and self-awareness; parietal lesions disrupt space perception and object relations (1988, p. 189ff.);
- (iv) occipital cortex: analytic perception per se bifurcating perceiver and perceived—a fully independent external world organized rationally and consciously; destruction of striate cortex leads to cortical blindness (1988, p.198ff.).

Each phase in this transition from one mental grade to another shows progressive individuation. Sensations act as input at successive stages and motor responses are generated. On the one hand, sensations *shape*, carve, limit, select, constrict the process: they are not its building blocks, they do not fill pre-existing categories, but bend the process of reaction of perceptions by suppressing alternative routes. They are not *incorporated* in what remains a purely endogenous derivation but “sculpt” it to model reality (Brown, 1988, p. 15; cf. p. 195). On the other hand, motor outputs corresponding to each level of activity participate in the life of the individual through their actions.

The fourfold basic pattern is the pristine pulsation of mental life: sensory input and motor output receive a somewhat contingent and symmetrical status. Movement and sensation are analogous to action and perception, in both cases one contributes to the crystallization of the other. Better: “action and perception are *ab origo* [sic] a single form, a unitary act-object” (Brown, 2002, p. 9, cf. p. 123). The pattern repeats itself endlessly (within the boundaries given by the life of an individual, of course). Furthermore, it not only recapitulates previous (partially faded) phases, it retraces phylo-ontogenetic growth planes. Cognition is evolution compressed: evolution delivers the structure of behavior (core differentiation), ontogenesis refines it (regional specification and neural selectivity),

and microgenesis ongoingly actualizes it (specification of target representations). “There is in living systems only one law, an evolutionary law, which is everywhere the same but in a different mode of concealment” (Brown, 1988, p. 9). Here we reach the second thesis: microgenesis advocates a *rhythmic recapitulation*. The mind/brain state grows and decays; it is essentially pulsatile, flickering. Since the decay is slower than the growth, there is a brief overlapping of phases that accounts for the experienced continuity. From base to surface, the mind/brain state smoothly unfolds before folding back up while being replaced by a new unfolding.

Consciousness is a relational process depending upon preliminary subconscious stages (Brown, 2002, p. 51): there is a continuous unfolding of a mental wave-like pattern, a dynamic stratification that eventually makes consciousness possible. “Consciousness is the intuition of a relation between levels in object formation, an intuition of the organic thread binding mind to world” (Brown, 2002, p. 72; cf. p. 75). As James saw, *consciousness does not exist*: “when one is conscious of being conscious, the object of consciousness is not the self but an idea or description of the self in a [momentary] state of consciousness” (Brown, 2002, p. 62). On top of that, consciousness is deceptive (a deception that is lost in psychosis): “the feeling of agency and the belief in the autonomy of a self set against objects [...] are necessary for survival in a perilous environment” (p. 74, cf. p. 123). Now, consciousness lags behind the neural processes that gave rise to it (p. 133). “The present in which the past is (re)experienced is all that exists” (Brown, 2002, p. 37, cf. pp. 33, 60, 116, 123, 137, 189–190): in the normal state of consciousness, life is lived in the present—and that present is actually always already past (cf. pp. 186–189).

## 2. Microscopic analysis

If we dig further and raise the question of the conditions of possibility of the direct experience of the World and of its conscious “judgement” that have just been put into perspective, we will have to cross the gates of metaphysics in order to delineate (very) briefly how the required common platform between “subjects” and “objects” is secured by Whitehead’s naturalistic ontology. One of the main achievements of Whiteheadian process thought is the destruction of the old concept of substance and its replacement by the concept of *societies* of “occasions of experience,” i.e., of fleeting nodes of interconnection. The complexity of the concept of substance is well known, but one can roughly say that the Greek concept put forward “what is permanent in change,” whereas the Modern one insisted on “what stands by itself.”<sup>15</sup> Whitehead does not really distinguish these two inflections of the concept of substance and mainly attacks the Modern conception from the perspective of its neglect of time. What bothers him primarily is indeed less the paired theological hypothesis defining God as an independent existent necessarily unaffected by time, and the World as hanging onto Him, than the undermining of the very meaning of temporality itself.

If the lapse of time is apparently an accident, it is because of the “fallacy of simple location.” By simple location of instantaneous material configurations, he means *first* one major characteristic which refers equally both to space and to time: “that material can be said to be here in space and here in time, or here in space–time, in a perfectly definite sense which does not require for its explanation any reference to other regions of space–time.”

<sup>15</sup>For the persistence of substantialistic assumptions in contemporary psychology, see Bickhard (2002).

And *second* a minor characteristic which differentiates space and time: “as regards time, if material has existed during any period, it has equally been in existence during any portion of that period. In other words, dividing the time does not divide the material. [...] In respect to space, dividing the volume does divide the material” (SMW49; cf. PR137). This is precisely what his ontological atomism—or “epochal theory of time”—strongly denies.

An actual occasion is an eventful togetherness defined by its mundane perception—which is called *prehension*. The establishment of that specific relational knot—a process named *concrecence*—ends with the “satisfaction” or “objective immortality” (PR82). A stubborn fact is then settled and it will henceforth exert its causal determination. During the integrational process, the actual occasion is an experiencing subject characterized by a self-enjoyment or emotional activity (cf., e.g. PR145, AI193, MT150, SMW283); as soon as the process has ended, the satisfied occasion is no longer *subject* (it does not experience anymore), but *object* (it is experienceable by others). The ever-enduring substance of classical metaphysics is thus replaced by a *continuous* chain of *distinct* momentary events or “occasions,” each having only a brief period of full activity before toppling into “objectivity”.<sup>16</sup> The simplest society of actual occasions is (to put it roughly) a temporally ordered one: a bare trajectory of actual occasions object with at its “head,” or last occurrence, an actual occasion subject. Everyday beings are then modeled by various types of societies of these temporally ordered societies—the main distinction being here the one existing between hierarchized and non-hierarchized societies of societies, i.e., between the “organic” and “inorganic” worlds of common-sense.

The subjective temporality that characterizes the period during which the entity is “subject” is a crucial parameter: the concrecing actuality is not *in physical time*; it is defined by its *duration* (a term that Whitehead actually does not use for this purpose, but that properly qualifies his intuition). What matters here is to give elbow room for the actualization of the spontaneous activity embodied in each and every occasions of experience. Nor do the different phases of the concrecence he distinguishes occur within “objective temporality” either: they are bare abstractions logically articulated for speculative reasons. The actual entity becomes *totally or not at all* (PR68). The point of importance is the abruptness and holism of the concrecence: from the perspective of space–time, there is an irruption of a “something” from the edge, or adherence, of the World; and that something necessarily happens as a totality.

Among the various successive phases in the coming-to-be of an actual entity that PR bewilderingly distinguishes, it will suffice here to depict two of them: the *conformal* and *supplemental* phases, corresponding respectively to the “physical pole” and the “mental pole” defining *every* actual entity. Each actuality is thus dipolar. As Whitehead observes, “it is a matter of pure convention as to which of our experiential activities we term mental and which physical. Personally I prefer to restrict mentality to those experiential activities which include concepts in addition to percepts” (S20). The physical pole (or conformal phase) is made of all the raw prehensions accepted by the actuality: it is a bare appropriation of the past (PR162; AI183–184). The World is welcomed by the actuality—and thereby the World is enriched by a novel mode of togetherness. “The many become one, and are increased by one” (PR21). The mental pole (or supplemental phase) is—or is

<sup>16</sup>One could claim that the marrow of Whitehead’s vision lies precisely in the articulation of the continuity of past events with the discontinuity of contemporary ones. To specify this, one should clarify the concept of *contiguity* as it is formalized by the relation of extension.

not—the scene of some divergences from the data as it were “recorded” by the conformal phase. Whereas the physical pole is constituted<sup>17</sup> by the “external” prehensions of entities-object, the mental pole is constituted by the “internal” prehensions of the actuality itself. We can say, in a more traditional manner, that the efficient causation (and the determinism it carries) belongs to the physical pole; while the final causation (according to which the actuality is able to act in accordance with its level of complexity) belongs to the mental pole. Mentality is clearly a question of degree: some entities are more creative than others.

“Causal efficacy” opens, so to speak, the concrescent actuality to the influence of the past: it embodies what ontologically links actualities among themselves. Through it, the actuality-subject inherits from the World (PR81 and 120); through it, the subject is “energized” (AI188) by the past. It is of the highest importance to understand that the togetherness of past occasions and contemporary occasions is *vector-like*: if actualities-object are, by definition, unaffected by the prehensive relationship with actualities-subject, concrescing actualities are properly made of these prehensions. From the object perspective, the relationship is external; from the subject perspective, it is internal, constitutive.

Whereas causal efficacy belongs to the physical pole, presentational immediacy belongs to the mental pole—actually to a late stage of it—and is derived (“transmuted”) from the efficacy of the past. Symbolic reference is even “later” in the phases that could be only analytically set apart; it is the necessary condition of consciousness. Consciousness is indeed solely the fact of the actualities that are able to appreciate—to construct—the difference between factuality and possibility (technically speaking, between “physical feelings” and “propositional feelings”). We have to insist on the fact that Whitehead’s panexperientialism is *not* panpsychism: the term “psyche” suggests a high-grade form of experience—consciousness—that endures everlastingly. The idea of (sense) perception has been enlarged to (ontological) reception or *prehension*. It does not imply any form of consciousness, only that a sort of discriminating activity manifests itself.

One last conceptual subtlety is important to sketch: although no contemporary subject prehends its fellows directly (all subjects are in the process of becoming mundane), although each constitutes an idiosyncratic standpoint on the world, each of these standpoints is—at the very least—compatible with the other standpoints. Of course, there is an indirect connection by means of the prehension of a common past, but this is not enough since genuine novelty can (by definition) locally transform the ontological tissue unexpectedly. To rephrase this rather abstract question in a more pedestrian way: in the normal state of consciousness, each and every human being enjoys a purely private picture of a recently past state of affairs—and yet, there is obviously a very sharp correspondence between these independent presentifications. Moreover, this intersubjectivity—the “common world” of the human species—overlaps those of other species to a significant degree. There is no gulf between them. You are back from a walk with a teenager and a dog; it is a rainy day and the only real comfortable spot is that armchair nearby the stove: there is no doubt that each of the protagonists will be eager to secure his or her comfort; in other words that they all recognize the existence of some “stable entity” and the necessity to compete.

The world disclosed by causal efficacy is already past; the one available through presentational immediacy belongs only to *our* present—yet, all experiences are perfectly

<sup>17</sup>The hyphenation is deliberate; it points at the gathering of data that creates the pole.

well tuned. Whitehead gives two reasons for this: the “extensive continuum” and the “primordial nature of God.” On the one hand, the extensive continuum expresses the solidarity of all possible standpoints; it is the “first determination of order” (PR66), a basic and evolutive structure of relationality providing a kind of rhythmic stabilizing grid amidst eventfulness. On the other hand, God endows each actuality-subject with the best possible goal (the “initial subjective aim” is only a suggestion) and the locus of its happening (Whitehead seems to understand it only in a pure necessitative way).

Beyond these technicalities, five things matter for our purpose: (i) the idea of a permanent substance underlying purely accidental changes is replaced by the concept of event or process; (ii) furthermore, these events are atomic and their contiguity within a given historical trajectory stands in for the concept of substance;<sup>18</sup> (iii) such a trajectory or serialization is actually the product of a subjective experience (an experiential togetherness) that is rhythmically objectified and born *anew* (conrescence)—but it is true as well that objects create subjects that soon topple into objectivity (transition); (iv) the causal efficacy of the transitional (past) actualities-object give rise to the presentational immediacy of the concreting actuality-subject before allowing symbolic reference (only in high-grade actualities); (v) conscious actualities—insofar as they are conscious—thus live “in the past.”<sup>19</sup>

### 3. Conclusion: panexperientialism and consciousness

Macroscopic analysis overtly focuses on human-conscious-experiences by articulating two preconscious modes of direct recognition with the help of an analytical activity, “symbolic reference.” Microscopic analysis opens the debate to all possible experiences by providing a finer resolution with the help of a sharp ontological discussion.

With regard to the question under debate—how to understand the factual interweaving of subjective and objective patterns *and* the possibility of distinguishing them—Whitehead’s vectorial ontology shows at what price the bifurcations, exploited *ad nauseam* by modernity to ground the sciences, can be avoided. There are indeed three standard positions: either the dualistic superposition of subjects and objects, or the monistic obliteration of one feature to the profit of the other. Historically speaking, it is quite remarkable that the mainstream of Western substantialism has gradually shifted from

<sup>18</sup>In his Cambridge years (1880–1909), Whitehead focused on spatial extension with the help of a Non-Euclidean—pointless—geometry. In doing so, he was the heir of Leibniz’ (1833) *Analysis situs* (1679, published in 1833), and especially of Gauss (1830) who argued that geometry is *not* an a priori science. In London (1910–1924), Whitehead extended (no pun intended) his focus to space/time/matter with the help of the mereology axiomatized in his *Principles of Natural Knowledge* on the basis of a fundamental binary relation (irreflexive, asymmetrical, transitive) whose relata are events: the relation of extension. Of special significance is the fact that actuality is conceived as continuous and hence is understandable with a part-whole relationship. The application of the logic of relations to the perception of space and time allows him to bridge the gulf between the world of sense-perception and the world of science. At Harvard (1924–1947), Whitehead’s interest shifted to ontological uniformity, a question that he believed requires a mereo-topology of sorts. Two facts explain this reform: on the one hand, Theodore de Laguna’s criticisms of his mereology; on the other hand, Whitehead’s decision to “throw a match into the powder magazine” (CN29), i.e., to cross through the gates of metaphysics and hence to adopt an “epochal theory.” There is no need to specify here the exact status of this ontological atomism; suffice it to say that actuality is now discontinuous. The binary relation of extension whose relata are events is replaced by the binary relation of extensive connection (irreflexive, symmetrical, non transitive) whose relata are regions. Inclusion (irreflexive, asymmetrical, transitive) is rebuilt from there.

<sup>19</sup>Needless to say that we cannot afford here a sharp discussion of the consciousness of time and of the time of consciousness.

supernaturalist dualism to naturalist dualism and finally to bare materialism. If we agree to accept processualizing the concept of substance, human beings can be genuinely in- and from-the-World. Mentality (as redefined by our author) becomes then a universal feature that gets crowned—solely in high-grade forms of experience—as consciousness (PR267). Technically speaking, each prehension (physical or conceptual) is clothed by a particular tone, such as emotions, valuations, purposes, aversions, or consciousness (PR24, 85, etc.); each tone is a specific “subjective form” correlated to the intensity of the concreting subject. Consciousness is one type of “subjective form” belonging only to high-grade occasions; it is elicited by the comparison of a “might be” (Whitehead speaks of “propositions” [cf. PR184–207] or concrete potentialities) with an actual fact. Neither pure *physical* prehensions (causal efficacy), nor pure *conceptual* prehensions (presentational immediacy) lead to consciousness as it is lived (PR242–243).

The power of PR’s conceptuality is twofold: on the one hand, it boldly states the intrinsic dependence between consciousness and the *experiential* bipolarity is/might-be; in other words there is no consciousness without the experience of a *concrete fact* (which is past) as contrasted with a particular (atemporal) *possibility*. On the other hand, its concepts show the indissolubility between consciousness and the body, and between consciousness and the other’s embodied consciousness. Physical prehensions pass in transit through the body, which is simply the most intimate part of our environment. Furthermore, the definition of the possible is correlated with the present state of the World *together* with the present state of God. There is no entity-subject in isolation: each concrescence is, by definition, a new mode of togetherness of the Totality. This is not the place to discuss the various facets of the Whiteheadian concept(s) of God. However, let us recall that his ontology intends to rebalance the God–World relationship. Neither God nor the World could exist without the other; each contributes significantly to the existence of the other by providing new possibilities and new intensities.

Having said this, we have to point to a possible weakness of this concept of consciousness, and accordingly to question how far it can be extended. With regard to the various states of consciousness that human beings can experience, Whitehead’s concept could appear a bit tight-fitting. If one wishes indeed to use his concept of *consciousness* for altered states that do not involve rationality but “pure feeling” (remember James’ “pure experience”), Whitehead is not applicable. But this does not mean that there is no room in his system for different levels of *experience*: it is simply the case that he has locked the concept of consciousness at the level of *rational* stepping-back. (Of course, behind all this lies the question of the *exact* nature of what we call “rationality”<sup>20</sup>...) In this context, it is worth reminding ourselves that causal efficacy precisely enables some understanding of the direct, unmediated, prepredicative experiences and of the participative feeling described, say, by mystics. Perhaps our philosopher is too restrictive here and an explicit Jamesian ladder of consciousness would be more adequate. And one could claim that this is exactly what the 20th chapter of AI is doing with the concept of *peace* qua “broadening of feeling” and “surpassing of personality.”

But would not such a conceptual ladder dissolve the specific virtues panexperientialism itself? To try to answer that question, we need to flesh out the meaning and significance of panpsychism.<sup>21</sup> Like most philosophical concepts, it has been used in various ways and

<sup>20</sup>We have attempted such a definition in Weber (2004a).

<sup>21</sup>For an assessment of Whitehead’s so-called panpsychism in relation to James’ philosophical development, see Weber (2002a, b).

carries nowadays a wealth of meaning that generally does not help in clarifying the debate (a fact that seems to be especially burdensome to non-philosophers). The question that the concept seeks to answer is properly ontological: what can be predicated of *all* actualities? For the sake of the present short discussion, let us examine the two main sources of difficulties; by doing so we generate a  $2 \times 4$  hermeneutical matrix.

On the one hand, the prefix “pan” can either refer to the Whole (cf. the concept of World-Soul) or to all parts (cf. the concept of hylozoism). A complementary—Leibnizian—version of that basic contrast is the one between aggregates and individuals.<sup>22</sup> Please notice that this first partition makes no pretence of exhausting the set of possibilities (*tertium datur*); moreover, it points to the necessity of specifying the relation (s) existing between the parts and the whole. On the other hand, the suffix “psychism” works at various *stages* or *levels* that can be heuristically identified and arranged in a hierarchy. First, it stands for *psyche* itself and, in conjunction with the prefix “pan” leads irresistibly in the direction of animism. Second, it stands for *subjectivity*, i.e., for consciousness or at least for an awareness of some sort: self-experience is its keyword. Third, it stands for some *mental activity*, which means capacity for abstraction, for valuation, together with some freedom (or spontaneity, depending on how you define your variables). Fourth, it stands for *pure experience*, in the sense that everything that “is” either experiences or is experienced—full stop.

This analysis highlights an abstractive progression: from psychism to subjectivity to mentality to experience. The answer to our question is thus not straightforward; it basically depends on how one intends to use the implicated concepts, i.e., how they actualize their meaning in a (hopefully tight) categorical network. If the concept of panpsychism is used to argue for an anthropomorphic type of consciousness all the way down, it is totally inadequate to Whitehead’s vision. If it is used to suggest the progression under discussion here, simply starting from its more sophisticated (and directly accessible) form, it could be acceptable.

But there is still one puzzle left unanswered: what precisely defines a “normal state of consciousness”? Such a state seems to be no more no less than the sort and level of consciousness that has been *selected* by biological and cultural evolution: it is very easy to see how the contingencies of our embodiment (remember Fechner) and of our culture (remember the Agora) have selected *one* type of consciousness.<sup>23</sup> At these two major levels, there have been self-adjustments of the different actors of the biosphere: in Whiteheadian terms, from the polychromatic data received through causal efficacy, only some attain conscious awareness (this could be further linked with the famous Bergsonian idea of the brain as a “valve”). Education appears then as an attunement leading to a sharing of a *common* world: children are taught how to construct reality in the “common” way. Let us notice that this was already somewhat implied by the Greco-Medieval concept of “*sensus communis*,” that designates, at the same time, the concerted functioning of the various bodily organs of sense-perception, the belonging of all beings to a context that gives them meaning, and *common* opinion on public matters.<sup>24</sup>

<sup>22</sup>This difference is stressed by Griffin (1993) (e.g., p. 35 n.17.).

<sup>23</sup>The concept of selection is used here philosophically, not evolutionary. For its part, the theory of “natural selection” has (at least) four qualifications according to what is “selected” is (i) the most efficacious kind of behavior; (ii) the best reproductive scheme; (iii) what can sustain itself and out-reproduce others; (iv) only working upon the mutations that actually happen. And these are all constrained by what precedes them (cf. W. S. Waldron in Wallace, 2002).

<sup>24</sup>Cf., for instance, Arendt (1978, Chapter 1, Section 7). For the “common logos,” see for example Heraclitus’ utterings in Diels-Kranz (1985, I, 148, 20–24, 29–30).

It is time to conclude. We have seen how the macro and micro perspectives complement each other: by virtue of the *reformed subjectivist principle* setting the panexperientialist wager in motion, the macro grounds the speculative expansion of the micro—while the micro elucidates the macro. This apparent circularity is justified by the absence of bifurcation between the two perspectives as well as the negation of the old dualism. Finally, we have sketched the potentialities of Whitehead's concept of consciousness for reinstalling human beings *in* the World. This swing is no longer a matter of simple epistemological consistency; it is made urgent by the current total cultural disaster and especially by its environmental dimension.

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