Process Approaches to Consciousness in Psychology, Neuroscience, and Philosophy of Mind

Edited by MICHEL WEBER AND ANDERSON WEEKES

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George R. Lucas Jr., editor

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Edited by

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and
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In memoria ingentis ingenii,

dedicamus librum hunc ad

Alecem

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For much of the twentieth century, all sciences, including biology, were obsessed with reductionism: viewing the world at all levels, from the smallest to the largest, as merely a machine made of parts. Take the machine apart, examine the individual pieces, and we would understand how the world works. Reductionism has had many triumphs in understanding the nature of the parts and how some parts fit together. It enabled us to build computers and devise powerful medicines for example. But some scientists admit that reductionism falls short of its ultimate goal: understanding how the world works. It falls short because it fails to recognize the connectedness, the unity, that is the deep essence of nature in all realms. Not in the sense of physicists seeking the ultimate fundamental particle or the theory of everything. There is a oneness in nature in the sense of interdependence.

—Irene Pepperberg, *Alex and Me*

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Consciousness and Rationality from a Process Perspective

Michel Weber

The nature of consciousness is highly debated these days; and, interestingly enough, a definition of this very complex and diffuse phenomenon is rarely attempted. In most cases, psychological studies focus on a particular contextual aspect, and a vague description is followed by a speedy operational definition—the mindset being: let us deal with measurements only. For its part, the nature of rationality itself is intrinsically tricky, all the more so since it is to reason that the question is posed.

It is not difficult to identify the few broad, remnant presuppositions haunting consciousness studies: since consciousness is necessarily coextensive with rationality, it pertains to human beings only ("species solipsism"[1]); more precisely, it cannot be predicated of new born babies and the like. Not too long ago, some would have even claimed that it is primarily a man's characteristic. In other, more inclusive, words, there is only one such "function" called consciousness: it is a *human rational* phenomenon. Although a certain conceptual carefulness is noticeable since James' publication of "Does 'Consciousness' Exist?" in 1904, philosophers have obviously never gone far from Aristotle's definition of human beings as "rational animals" [*zōion logon echon*], unless it is to embrace his alternative definition in terms of "political animals" [*zōion politikon*]. (See mainly Aristotle's *Politics* and *Nicomachean Ethics*.) This is so much the case that the forthcoming analysis can be said to evince the intricate interplay between the rational pole of consciousness, traditionally self-centered, and the political pole, traditionally others-centered.

We speak of "intricacies of interplay" because "consciousness" stands for a function; it is a peculiar "scene effect"[2] allowing the following working hypothesis: consciousness is an activity of unification directed toward various

ends,[3] the main one being still, for most of us who are locked in the *vita activa*, survival in a more threatening than peaceful environment. It is a dynamic coordination, a capacity of multiplying oneself in space and time without dividing oneself.[4] Far from being a substantial metamental loop, consciousness primarily means eventful con-sciousness, manifold entanglement, togetherness of elements that can be heuristically pooled in two sets: private and public. Consciousness is so to speak Janus-like, facing two directions: first-personness and third-personness, unity and plurality, privacy and publicity.

This paper intends to give a philosophical analysis of the concepts of consciousness and rationality, and particularly to display the correlation existing between what is usually called the "normal state of consciousness" and what should be called the "normal state of rationality." Eventually, it draws consequences for the correlation between "altered/aberrant states of consciousness" and "altered/aberrant rationality."[5] Although it argues from a broad phenomenological perspective, its grounding technicalities belong to the field of *process thought*, as fleshed out by the later Alfred North Whitehead (1861–1947). Furthermore, the path we have chosen to exploit is intermediate between the carving out of the (more or less) elastic definitions advocated by many[6] and the giving of the (more or less) articulated descriptions lauded by others—"descriptionism," taken here as a subcategory of phenomenological nominalism. (See, of course Husserl or, more recently, Strawson 1959.) Since we start from a set of undemonstrated (and maybe indemonstrable), allegedly self-evident, propositions, we will speak of axioms, in the loose sense of the term. The key criterion will be axiomatic coherence, as Whitehead himself would have claimed.[7]

The cornerstone of the paper is the following: in order to do justice to the numerous semantic layers embedded in the notion of normal consciousness (or *consciousness-zero*, as we have called it elsewhere), one needs to define an Archimedean point (a point of leverage outside of normal consciousness) whose access is, by definition, forbidden by substantialism. The substantialistic account of consciousness can indeed be boiled down to a triad (see below): (1) consciousness is a well-defined entity (principle of identity); (2) one cannot be at the same time conscious and unconscious (non-contradiction); and (3) one has to be either conscious or unconscious (excluded middle). With the help of a multilayered processual—genetic—perspective, it becomes feasible to show how normal consciousness is a construct in the double sense that (1) it is processed by developmental structures in ontogeny, evolution, and socialization, and (2) it is a concept carved out, precisely, by the rationality at work in the normal state. In other words, the reader should keep in mind the idea of a spectrum of consciousness unfolding within normal consciousness (actualizing it) *and* without normal consciousness (from the perspective of the continuum in which it is inscribed). The spectrum is compatible with

clinical tools like the *Glasgow Coma Scale*, but the question of its quantification is not analyzed here.

It occurred very early to the author of this chapter that the study of consciousness must begin with the careful use of introspection, that is, with the linguistically articulated consciousness of the adult socialized human being (who in this case happens to be a white male living in continental Europe). Symmetrical patterns have been used to help build the argument in the following way: first, all the main characteristics of normal consciousness have been identified; second, their overlappings have been named; and, third, one possible set of nested characteristics has been selected from the perspective of a sharp articulation of the public/private axis. By doing so, we basically followed a heuristic hunch that played out well. This paper bypasses the organic causes of consciousness-alteration or dementia insofar as they are likely to be independent of the will of the patient and of the actors constituting his or her social sphere (Parkinson's disease, Alzheimer's disease, Down's syndrome, etc.).

The paper proceeds in three main stages. First, it sketches the various semantic layers embedded in the concept of everyday (or "normal") consciousness and contextualizes their interanimation, thereby activating a "nuclear pivotal model of normal consciousness." Second, focusing on the strict correlation between "normal" consciousness and "normal" rationality, it proposes an analysis of "normal" and "abnormal" rationalities. Third, it investigates the necessity of using an "abnormal rationality" for the clinical treatment of "altered/aberrant states of consciousness." A brief conclusion suggests some ways of opening our argument toward further researches.[8]

The Nuclear Pivotal Model of Normal Consciousness

For the sake of clarity, unless specified otherwise, the term of "consciousness" itself is used in these lines only in the sense of "normal consciousness," in other words, of the everyday alchemy between the respective layers of private and public awareness: it is a particular existential rhythm made of shared interactive levels between "always already" social individuals. Operating at the intersection of the individual matrix and the social one, consciousness is the key feature of our being in the world, of our public privacy. The paper's basic instrumental abstraction is thus the differentiation of private and public spheres; and it is part of its endeavor to point to the vices and virtues of such a polarization. Evolving within that working hypothesis, we will first singularize one individual and: (1) hierarchize private and public abstractions; (2) state the interactive overlappings between these abstractions; (3) draw conclusions opening the argument to a society of individuals. (The analytical skeleton of the pivotal model is to be found in Figure 13.1.)

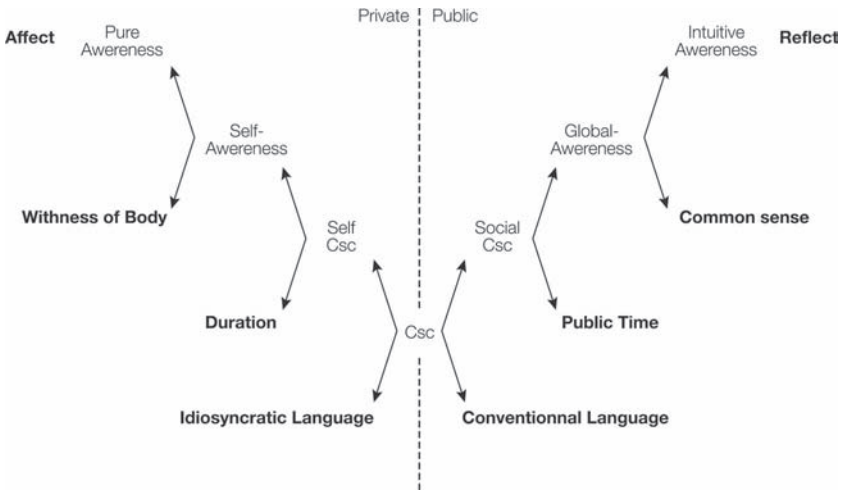

Fig. 13.1. The Nuclear Pivotal Model of Normal Consciousness.

Pivotal Model

Axioms

Private

Private realms are traditionally the domain of philosophy, especially since Descartes chose to lock himself in his stove ("*poële*," i.e., heated study) to look for a reliable foundation of his world. This allusion to the French philosopher is not gratuitous, since we will proceed from clear and distinct characteristics to vague and indistinct ones. From the private standpoint, consciousness is essentially a "self-consciousness" lived through a "linguistic stream." The notion of "self-consciousness" will be fleshed out in a moment; for the time being, let us agree that it covers the idea of a prelinguistic embodied identity, with its urges, needs, and spatio-temporal contingencies.

Idiosyncratic Language. We live, without a doubt, under the law of language. Even a superficial introspection teaches us that consciousness is conceptual in character: we experience consciousness as a linguistic flux, that is, as an endless chat evolving from a free association of ideas (truly stochastic or not) to the tight weaving of an argument (conceptual linearization respectful of rules debated in the next section). At one end of the linguistic spectrum we have poetic texts and mantic utterings, at the other, the univocity of syllogistic constructs.

The question of idiosyncratic language (or speech in Saussure) can receive some clarification from a study of the notion of "style." Each individual has her own way of appropriating the constraints of her mother tongue: choice of the words used (possibly the framing of neologisms), grammatical preferences, play with the Russellian-Batesonian "logical types" . . . In other words, a personal style depicts holistically the way an individual makes use of language to express herself. The necessities of a constant hermeneutical struggle with authors like James and Whitehead have led us in the direction of an analysis of style with the help of two subordinated notions: the global semantic level that is style overlaps the conceptual and propositional levels; at the conceptual level, the key is polysemiality, at the propositional, it is interanimation.[9]

Having said this, to define the essence of normal consciousness as verbal does not mean that it is possible to encapsulate all forms of consciousness verbally: it is perfectly possible to have somebody being self-conscious (and thus conceptualizing) without being able to use language (i.e., verbalizing). Self-consciousness of pain is furthermore possible without the concept of "pain." In the "boxed-in (or locked-in) syndrome," experienced in rare cases during surgery, a state of full awareness deprived of the ability to do anything or to communicate anything is endured (!) by the patient. Moreover, everybody experiences, now and then, states of arousal—or even thoughts—that cannot be clearly expressed. In some cases, this is just a transient state, like a delay in the access to the linguistic register; in other cases, it is a definitive incapacity: some experiences are simply not susceptible to being verbalized. They are at the edge of normal consciousness. It is definitely not by accident that Husserl developed a shorthand to be able to put on paper thoughts at the same speed with which they occurred to him. Whitehead is very clear in that regard:

> Language is not the essence of thought. But this conclusion must be carefully limited. Apart from language, the retention of thought, the easy recall of thought, the interweaving of thought into higher complexity, the communication of thought, are all gravely limited. Human civilization is an outgrowth of language, and language is the product of advancing civilization. Freedom of thought is made possible by language: we are thereby released from complete bondage to the immediacies of mood and circumstance. It is no accident that the Athenians from whom we derive our Western notions of freedom enjoyed the use of a language supreme for its delicate variety.[10]

And indeed, as our figure intends to show, consciousness' private core, self-consciousness, is preconceptual.[11]

Duration. Now, if we dig further and analyze what is meant by "self-consciousness," we have to carve out further abstractions, leading us, quite paradoxically, to sink into vagueness. We have indeed argued for prelinguistic thoughts, and, although this claim has no dogmatic pretensions, its consequences are paradoxical in the sense that abstractions, usually associated with very sharp notions, are here associated with plastic phenomena. Bergson himself expressly asked for a reformed, authentic, dynamic rationalism, a *rationalism of the fluid concept* that will encounter the richness and the qualitativeness of the stream of experience.[12]

Self-consciousness is made of "self-awareness" and durational awareness. The embodied mood that is "self-awareness" will need one further abstractive step; but first let us contemplate the temporal dimension that has just been extracted. Evolving in a Plotinian-Augustinian tradition (see the *Confessions*' "*distentio animi*"), Bergson's investigation of the "immediate data of consciousness" leads to his insistence on their heterogeneous continuity, in one word, to his concept of duration. The famous meditation on the concept of number gives the second chapter of the *Essai* (Bergson 1889; English translation 1910) the opportunity to contrast the two fundamental types of multiplicity disclosed by experience: the multiplicity of the purely affective states of mind ("*états purement affectifs de l'âme*"), and the multiplicity of the material objects localized in space. The former is solidarity, fusion, mutual penetration of heterogeneous moments; the latter is a bare *partes extra partes* juxtaposition of homogeneous moments. In duration, there is an organic continuity modulated by qualitative fluctuations. The subject experiences herself as shot through and through by a double internal tension: on the one hand, there is retention (or memory) anchoring subjectivity in past events; on the other, there is protention (or intention) luring each durational slab toward its successors. In conclusion, everyday consciousness does not house a pure present: the conscious subject lives in a past stretched toward a probable/willed future. Whitehead's analysis of conscious perception in terms of *symbolic reference* and later his genetic analysis of the process of concrescence arrive at the exact same conclusions:

> No actual entity can be conscious of its own satisfaction; for such knowledge would be a component in the process, and would thereby alter the satisfaction. In respect to the entity in question the satisfaction can only be considered as a creative determination, by which the objectifications of the entity beyond itself are settled. (PR 85)

Withness of the Body. Retention and protention—that, according to Whitehead, correspond to the old efficient and final causes—install a very

basic dialectic animating all sentient beings. But even more basic is their lived embodiment. Before reaching the core of private consciousness—affect—the "withness of the body" has to be spelled out; and that crucial Whiteheadian concept can be approximated through a perusal of the classical concept of coenaesthesia. How is it that the body can say "I" alone?[13] Sherrington (who invented the concept of "proprioception") identifies three complementary sets of sensory receptors (Sherrington 1906 and Sherrington 1940).

Exteroception is constituted by the five senses open to the external world: sight, hearing, smell, taste, and touch (including the various modes of cutaneous sensitivity). They constitute what is commonly called "sense perception" and deliver a rather clear-cut picture of our surroundings. Now, thinkers like Bergson and Whitehead insist on the contingency of that perspective, that it is as precise as it is superficial: from a broad evolutionist viewpoint, it is but the triumph of one possible type of specialization, and of dualistic thought. Interoception denominates 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 (cephalalgia, 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, determining the nausea feeling). So, for instance, the entire intestinal motility is nervously coordinated by the unconscious messages of receptors sensitive to distension.[14] Proprioception denominates the messages of position and movement allowing, with the help of the internal ear's semi-circular canals, a spatialization—and thereby a full (ap)propriation—of the body. Proprioceptive perception issues from sensorial receptors[15] delivering data about the position and the relative movements of the different parts of our body. Through reflex action, it regulates the muscular 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 of the weight and volume of the prehended or moved object. The structuration of our proprioceptive field provides for the fundamental organic anchorage of our identity. Thanks to that capacity of experiencing "my body" as being "me," I am plunged into the world. A proprioceptive loss blinds the "eyes of the body" (Sacks 1985, 47), thereby depriving the patient of his physical identity and jeopardizing his being-in-the-world.

Now, since that organic anchorage is actually the product of the *synergy* of these different perceptive modes, the concept of coenaesthesia (or synesthesia) is the most appropriate to suggest the essence of the withness of the body, which Bradley called the "felt surplus in our undistinguished core."[16]

All feelings go hand in hand—which does not mean that their respective data blend together: we are not concerned here with the involuntary experience of a cross-modal association (see Cytowic 1989). For Whitehead and Merleau-Ponty, there is a mutual immanence of the body and the world, a co-belonging or chiasmus between the flesh of the body and the flesh of the world. The body is the locus of an exploratory strategy; it is the field of localization of experience (Merleau-Ponty 1968, 113–115). More precisely, the withness of the body is a bipolar reality: on the one hand, it denominates the fact that the body is the starting point for our knowledge of the circumambient world, that it is "through" it that we prehend everything;[17] on the other hand, the most primitive perception we have is the one of our bodily functionings: if all our sensory windows were occluded, we would only be a pure embodiment. Here again the Greek language is revelatory: *synaisthēsis* means common feeling, sympathy, and consciousness.

Affect. We have spoken of an embodied *mood* to qualify "self-awareness"; if one last bracketing is made (the speculative bracketing of the body—that could actually be equated with its complete cosmic correlation), we are left with the very experiential core of self-consciousness: "pure" awareness, which is affectivity.[18] In so doing, we follow Whitehead and, to some extent, Michel Henry, but also—and this is remarkable—what psychotherapists have learned from the use of clinical hypnosis. According to the former, enjoyment is at the very heart of actuality; it is its quintessential mystery. For his part, Henry speaks of "*pâtir*" and "*passion*," terms broader than sufferance, but linked with it. On the other hand, Chertok spoke of hypnosis as a *purely affective relation* whose discovery occasioned a fourth narcissistic wound in the European mind.

The cognitive role of emotion—however crucial[19]—matters less here than its bare pristine character. "The basis of experience is emotional" (AI 176): in the immediate experience a proximity indicates itself. It is a proximity that is first and foremost affectivity, the reaching of a pure emotional intensity: "The organic philosophy interprets experience as meaning the self enjoyment of being one among many, and of being one arising out of the composition of many" (PR 145.) One will rediscover later the opening of that intrinsically private concept to the public sphere. For the time being, let us underline that by no means are we arguing here that emotions are independent of embodiment.

Public

Let us now attempt a symmetrical journey into the public realm. From the public standpoint, consciousness is first and foremost a "social consciousness" shot through and through by a conventional—rationalized—language. The introductory statement to our "private" section alluded to Cartesian

modes of thought; it is furthermore remarkable that his foundational project eventually relied totally upon the benevolent existence of an *Other*. In the same way the notion of "self-consciousness" covers the idea of a prelinguistic embodied identity, the notion of "social consciousness" covers the idea of a prelinguistic social identity. The feeling of belonging to a certain social body (among other things, the unconscious knowledge—or symbolic violence[20]—of the "pecking order"), is sustained by a certain language, whose appropriate manipulation is crucial.

Conventional Language. "Language is a social art" (Quine 1960, ix); it is nothing other than the *key* to common life (remember the Agora). The idiosyncratic language evoked earlier is a personalization of the common language, that is, of the language that enables one individual to communicate efficiently with another (set of) individual(s).

The public use of language is traditionally the domain of Rhetoric; notwithstanding, the present speculation needs a broader generalization of our discussion of idiosyncratic language. With Hagège, one could define language in the following way: a language is an organic system of signs investing the phonic substance with the intention to signify—and especially to communicate these significations—by drawing the outlines of sets through the opacity of events.[21] A word belonging to a natural language, or a philosophical concept stratified in a categoreal scheme, does not reproduce the concrete eventfulness, but classifies it by naming some of its recognizable features. It is thus more cautious to speak of "filtering through classification" rather than mere "cutting out." Language reinvents the world; it does not picture it. Since it is particularly at this point of our diagram that the structural influence of rationality is made obvious, and since this question will be the object of our next section, we postpone its further development.

Public Time. If we dig further again and analyze what is meant by "social consciousness," we have to differentiate "global awareness" and temporal awareness. Global awareness is an *atmospheric mood* that will be later defined by "intuitive awareness" and "common sense."

The concept of public time that is used here is a "soft" one: it does not correspond to the "hard" concept of physical time, operationalized in the sciences, or even to the concept of natural time, metaphysical in its essence. It refers (1) to the *commonly lived time*, which Hall's studies of the peculiarities of socially acceptable temporality have so much clarified (see, e.g., Hall 1959, 1966, 1984); (2) to historicity, which embodies the way a given society profiles itself in its own historical adventure; (3) to the *eschatological horizon*, which manifests a properly religious anchorage by speculating on the possibility of an individual and/or collective postmortem career or even a prenatal one (see Pomian 1984).

Common Sense. The global awareness—or atmospheric mood—that constitutes, with public time, social consciousness, is susceptible to a bipolar analysis distinguishing "common sense" and "reflect" (reflect denominates here the public experiential core corresponding to affect).

Testis unus, testis nullus. "Atmospheric" refers to the *feeling of feelings* in a shared world and culture, that is, to the senses in common in the social cosmos. For the sake of our specular analysis, which postulates that the structure of public consciousness mirrors that of private consciousness, it is to the old concept of *sensus communis* that we have to appeal. Of its threefold meaning—concerted functioning of the five senses (more precisely, coenaesthesia), sharing with others of the world *qua* context, sharing with other living creatures of the world as environment[22]—, the second one is particularly relevant here (the third will resonate with our genetic discussion of consciousness). It is through a constant interchange of data about the appearances that an individual can be confident in her own perception. They are "real" because they reach the common world. Only the fitting of the objects in an identity-giving context creates the feeling of reality. The coenaesthesia approximating the withness of the body is not enough for existing meaningfully in the world: without confirmation and reinforcement of percepts, chaos still reigns. The withness of the social body is required; departing from it can lead straight to insanity. (There is one painful additional question that should be examined here: how far could the delusion of one individual validate the delusion of another?)

A later section will raise the question of the genesis of that contextual evidence. For the time being, we have to point to two essential phenomenological concepts: Husserl's *Lebenswelt* (Husserl 1954)—that will be approached below by the concept of *Urdoxa*—and Heidegger's *Umwelt* (Heidegger 1927, §§ 15–18). We belong to the world and necessarily live in the firm belief of that vital binding: "To be born is both to be born of the world and to be born into the world."[23] What makes sense is the intentional unity contextualizing human beings' percepts, concepts and affects. Now, it is remarkable that there is a cultural valuation of senses. Let us take two examples. On the one hand, the association of sight with Greek culture and of hearing with Hebrews is now well known, since the conflict of these two ground metaphors are at the basis of European (Christian) civilization. The metaphor of vision is central to Greek culture and consequently exercised a heavy influence on the emergent philosophical science. Jonas has shown very straightforwardly the inevitable bias of their concepts, mainly in terms of the neutralization of time and causation. To say it in another way: the metaphor of vision imposes the idea of the *spectator-subject*, that is, of a totally passive onlooker factually unaffected by the scenery (Jonas 1966). It is that ideal of a pure objective knowledge that has opened the doors to a technoscience

that manipulates things and renounces living in them.[24] The Hebrews, for their part, emphasized hearing and interiority. The blurred, cryptic, dialogue that occurs between human beings and god weaves bonds of proximity that transform the story of certain communities into holy history (see Boman 1954). To the Greek static and dualistic propensity (taken over by Plotinus and Augustine, and culminating in Descartes) answers the dynamic and globalized anthropo-theology of the Hebrews. A human being is a fleshed breath, a breathed flesh, an undivided and fluctuating globality.[25]

On the other hand, communication in the social body happens at various complementary levels, not the least of which is the gestural or "kinesic" one. Among the conventions defining the public sphere, there are of course all the explicit and implicit signs of recognition and gratefulness conveyed by the various social rules, including the rules of politeness. Less obvious are the different forms of territorialism and the sort of tactile (palpable) sense of space and time required by social life. Even less obvious are the kinesics that rule meta-communication. Bateson has asked, "Why do Frenchmen wave their arms about?" (Bateson 1972, 9–13) and the answer is not that simple to spell out. Although the old Greek dichotomy claiming that only language expresses thought while body expresses merely emotions dies hard, the "Palo Alto school" has accumulated evidence showing the intimate (and possibly necessary) relationship between certain structured body motions and spoken language forms (Birdwhistell 1970, 128; see, e.g., Scheflen 1972). Moreover, kinesics provide essential metasignals about the relationship: the codes discriminating the different logical types are mainly nonverbal (posture, gesture, facial expression, intonation), the verbal media (vocabulary) being particularly poor in that regard.[26] Multiple typing, that is, the capacity of identifying and hierarchizing the different types of messages, is indispensable to communication (even in animals): not being able to assign the correct communicational mode, for example, not being able to properly label metaphors, dangerously impairs the adequate handling of signals. This is so much the case that, according to the famous double-bind theory, such dysfunctions open the door to schizophrenia: a breakdown in the ability to discriminate types prevents the decoding of paradoxical instructions propagated at the lexical and kinesic levels.

Reflect. According to our chart, the public experiential core is an intuitive awareness fairly remote from the categories of everyday language. Instantaneous, gut-like, deep, it installs a vivid sympathy between its subject and its object. That reflective mood concerns both our fellow human beings and the cosmos as a totality. Actually, it blurs the difference between subject and object, sheer individuality and the overwhelming experience of in-finitude. Bergson has described that blissful awareness under the label of "intuition";

more precisely, it is one meaning of the concept that conveys the experience we are looking for. Let us quickly unfold this. Sometimes, Bergson uses the concept of intuition to speak of the fugitive focal center around which a speculative system orbits. In sealing his system, the philosopher does not arrive at unity, but has started from it.[27] What stands out here is the dialectic intuition/intelligence that weaves the systematic attempts. More relevant for our purpose is a complementary threefold meaning of the concept, that is, a meshing between three different submeanings of the concept of intuition: subjective, objective, and sympathetic.

The restricted—subjective—sense of the concept of intuition belongs to the (metaphysical) binomial "intuition/intelligence," originating in the (psychological) binomial "duration/time." The concept of intuition spreads out from the concept of duration in so far as intuitive thought is durational thought, and this duration is first a subjective, inner growth operating in the secret of our immediacy.[28] Physical time, homogeneous, measurable, and reversible is not internal temporality, which is heterogeneous, nonmeasurable and irreversible.[29] In this intuitive "pure perception,"[30] the world is seen *sub specie durationis*, that is, in a heterogeneous duration in which all moments penetrate each other. It is less a vision than an immediate contact bypassing—not obliterating—rationality: actually, intuition, and intelligence work hand in hand;[31] its main task is to rediscover the rhythm of creative evolution by localizing oneself at its heart (Bergson 1959, 1327).

When Bergson expands the field of applicability of the subjective concept of intuition to the "objective" world, when he installs duration and freedom at the heart of things,[32] he realizes a speculative feat comparable to Whitehead's reformed subjectivism (see below). The subject/object difference, still sensitive in the *Essai* (1889), shades off in *Matière et mémoire* (1896). The "*Introduction à la métaphysique*" (1903) claims that our private consciousness, in its perpetual flux, introduces us inside a reality that has to be the model for any reality whatsoever.[33] The intuition of our duration puts us in contact with a continuity of durations that we can try to track either upstream or downstream (Bergson 1959, 1419). It is an effort of conscious dilation to seize nature round the waist, to grasp it in its deepest being—which is also, to a different degree, our own.

Now that the brotherhood between subjective and objective mundane features is established, the mysterious connivance that we can entertain with "things" becomes a precious clue. The coincidence, in a simple act, with what is unique (and as a result inexpressible),[34] should allow us to avoid the forgetfulness of the cosmic dynamism (i.e., its obliteration by sense-perception) and thereby to ground a method overcoming the problematic stabilizing (rigidifying) effect of every conceptualization (Bergson 1959, 1276). Bergson is looking for a rationalism of the fluid concept. In his own words:

> Intuition, then, signifies first of all consciousness, but immediate consciousness, a vision which is scarcely distinguishable from the object seen, a knowledge which is contact and even coincidence. —Next, it is consciousness extended, pressing upon the edge of an unconscious which gives way and which resists [. . .].[35]

Axiomatic Overlappings

"When we conceptualize, we cut out and fix, and exclude everything but what we have fixed. A concept means a *that-and-no-other*," insists James (1977, 113). However, the cruel contingency of our linguistic tool is problematic only if the abstractions framed are uncritically considered. Once this dogmatic trend is recognized for itself, temperate carving and weaving of meaningful abstractions become possible again.[36] Nothing would be worse than a tessellated view of our framework, and now that the axioms have been introduced, we have to highlight their possible overlappings and suggest what existential picture their interanimation generates. Out of the various overlappings due to the limitedness (and the heuristic nature) of the categories used, let us gather the following four chiasmi. By displaying how one concept is inseparable from its specular brother, we will take the first step in the direction of proving the coherence of the entire categorial set.

The "stylistic" grid used to analyze the peculiarities of personal language aims at displaying how an individual appropriates the polysemiality of his or her mother tongue and how the interanimation of sentences is achieved. Conventional language remains the basic semantic framework defining normal consciousness through normal rationality: on the one hand, the idiosyncrasies of a private language are always found adhering to public language; on the other, private language creates neologisms and grammatical inflections that can have an impact on public language itself. Let us give a quick philosophical example. Whitehead's relation to language is quite complex; for the sake of the present inquiry, it can be linearized in the following way: he first identifies the fallacies of everyday, scientific and philosophical languages, denouncing the faulty categories. It is mainly substantialism and its heir, materialism, that are incriminated. Second, he scrutinizes his own "subjective" experience in order to reveal what impregnates every actuality[37] and contemplates the necessity of redesigning language in order to be able to systematize these ultimate generalities. He consequently advocates a careful analogical expansion of the current semantic horizon of the words. Everyday language is designed only for everyday purposes; the ultimate asks for a reformed language, even if it means that common sense (nontechnical use of the term) is overthrown. In order to manifest his own intuitions, the philosopher implements choices, reappropriations, and conceptual creation.

He thus first uses everyday terms whose meaning have been purified and extended: *feeling*, *experience*, *enjoyment*, *value* or *God* gain a valence foreign to ordinary language, while still keeping a grasp on normal experience. However, even when ordinary language has reached its maximum stretch, its tribulations remain very far from full-fledged concreteness. The, so to speak, deviant ontology and habits of thought induced by its concepts are still active. Then the creation of concepts takes place with "neologisms" like *creative advance*, *unison of becoming*, *hybrid prehensions*, or *ingression*. But still, there is a stretching, not a total breaking with the linguistico-cultural landscape: the price paid to allow a possible communication is to leave the grammatical structure more or less untouched. The key to the differentiation between a very personal use of language and a pathological one is perhaps the state in which the grammatical structure is left, allowing, or not allowing, some access to communication.

In regard to duration and time, suffice it to say that duration can be projected, bent, constricted in physical time (think of Bergson having to wait for the dissolution of his lump of sugar). Ontologically speaking, it is furthermore possible to argue along with Whitehead for a durational genesis of time.

With regard to the proximity of the "withness of the body" and "common sense": whereas the former anchors the individual in her body and, thereby, in the world, the latter anchors the individual in her social tissue. Neither can work without the other.

Eventually, the toppling effects between the two specular core concepts, affect and reflect, have to be underlined. The marrow of the private (subjective) side of consciousness has been described with the concepts of enjoyment and affectivity; the marrow of the public (objective) side has been spelled with the concept of intuition. We have taken some time to spell the valences of Bergson's concept of intuition precisely because that concept allows the categorial bypassing of subjectivity and objectivity. Pure awareness (affectivity) necessarily opens itself to the Whole, and intuitive awareness is in its essence affectivity. Very suggestive complementary concepts are James' "pure experience" and its Nishidan appropriation, but their examination would lead us too far.[38] The "self-centric" mode of existence is a particularity of the "normal" state of consciousness; the "cosmocentric" (Nishitani 1984; see also Deikman 1996) mode in which we escape from historical thought belongs to "altered" states. A more pragmatic exemplification is offered by the hypnotic state of consciousness that is introduced below.

It is solely with the total reappropriation of the structure of our modes of relationality that the cosmic structure itself will be understood. This is remarkably epitomized in Whitehead's "reformed subjectivist principle" that can be expressed very simply: what we learn through our personal—embod-

ied—experience can be generalized to any experience whatsoever. In fact, not only can it be, but it *must* be if we claim that no bifurcation can disinherit humanity from its natural filiation. Now, what this experience teaches us above all else is its pure experiential factuality: "to be" is to be experiencing; nothing "is" that is not experiencing or experienceable.[39] And every experience has necessarily some intrinsic value conferred by its inalienable "enjoyment." Consequently, it is absolutely appropriate to speak of *panexperientialism*. To belong to a world is to be both the product and the actor of an ontological weaving. Technically speaking, it is to be an actual entity, a pulse in existence, a windowed monad.

As Hegel beautifully uttered, *das Wahre ist das Ganze* (Hegel 1937, 21). The axioms here proposed make sense fully only when they are interanimated, that is, when their coherence allows the projection of the reader in their own semantic space. It is impossible to freeze a meaning: only a total processualization makes sense. To picture the conscious state analytically evoked, one has to realize an incessant back and forth, introspective movement between each of the arborescences and their experiential focus.

Nuclear Pivotal Model

According to our speculative wager, the subtle synergy between the various private and public levels of awareness defines normal human consciousness. The model so far introduced is pivotal: the structural skeleton we have skimmed through defines normal consciousness as the eventful pivot energizing the togetherness of private and public modes of awareness of a given human individual. But there are two qualifications we must consider. One is that the various dimensions of experience we have mapped represent a quality space that is not equally saturated with consciousness throughout. Normal consciousness is only a focal selection of this space, the rest of which functions as a dim and nebulous horizon. It is therefore expedient to introduce the idea of the nuclear pivot. The second qualification is that the individual pivot is, by its very nature, a collective pivot as well. To determine the conditions of possibility of the pivotal tuning, we have to contemplate the social individual. As we will see in our next section, if the pivot is not shared, the individual consciousnesses are not attuned, and the question of the sanity of (some of) the implicated individuals immediately arises.

Emphasis has traditionally fallen on language and sense perception, whose meshing was said to rule consciousness: they are but (crucial) ingredients of a more holistic picture. The nucleus of conscious experience is constituted by a chiasmus between languaged "self-consciousness" and languaged "social consciousness": everyday interactions usually bracket the other private and public characters, which are thus unconscious. As a matter of fact, the appeal

to personal experience shows straightaway that most of the categories involved are often factually shaded, if not obliterated in social interaction. What is conscious and what is not is not only a matter of degree; it is a matter of fluctuating degree: within the "normal consciousness pattern," all the items presented can receive special attention, either because the subject chooses to do so, or because some "unwilled" event imposes itself.[40] The subject can, for instance, decide to explore the existential ramifications of intuitive awareness; or he can be the victim of a toothache leading him to feel the heaviness of embodiment more cruelly than usual. . . . To go into retreat in one's solitary stove puts into brackets, even before the launching of the hyperbolical doubt, social consciousness, maybe even conventional language itself. To choose, like most of our contemporaries, to live only "socially" (i.e., scattered), leads to the forgetfulness of the other ineffective modes of awareness.[41]

James' concept of a "fringe of experience" is helpful to polish the concept of *nuclear* pivot: the *Principles of Psychology* distinguishes between the experiential nucleus (which is definite) and its fringe, halo, or penumbra (constituted by the more or less vague contextualization, that is, the web of meaning-giving relations).[42] The clear and distinct phenomena receive their significance and value from this "penumbra that surrounds and escorts it" (James 1950, 254–255). That Jamesean couplet finds a worthy heir in Whitehead's *early* distinction between sense perception and sense-awareness, which actually announces his *late* distinction between presentational immediacy and causal efficacy.[43] "Nature as perceived always has a ragged edge" (CN 50). In the very same way James re-establishes the pedigree of the idea of "vagueness," Whitehead considers vagueness as primordial as value: the fundamental is not, and does not have to be, settled, clear and distinct.

To rephrase our conclusion: pivotal consciousness is the characteristic of the individual experiential flux weaving the existence of societies of human beings and rooting these societies in their cosmic environment; nuclear pivotal consciousness denominates the chiaroscuro highlighting *some* features of that complex socio-environmental rooting. The latter is not simply an abstraction of the former in the conceptual sense of the term: there is a filtration of experience that transforms an indistinct eventful wealth of prehensions into an ordered universe. Consciousness is selectiveness of enjoyment: "We experience more than we can analyze. For we experience the universe, and we analyze in our consciousness a minute selection of its details" (MT 89). According to process philosophy, enticity is a matter of degree *and* convention (see Galin 1999). A being appears isolated only from a narrow perspective, and thanks to the instability of the innumerable links it entertains with the cosmos.[44]

The concept of fringe directs our attention (no pun intended, but appropriate) toward the filtrating business of consciousness in a rather simpler

way than Whitehead's difficult categorialization he calls "the genetic analysis of concrescence." Out of the interconnected manifold, only a few stabilized relationships reach consciousness: the selectiveness of enjoyment in the higher animals that "arises from expression coordinating the activities of physiological functionings" is the *triumph of specialization* (MT 29 and 121). Three steps are observed: first the filtration—or negation—of some data; second, the comparison—or contrast—of the selected data; third, their structuration into a world "of my own." More precisely, consciousness arises with a counterfactual contrast, that is, when a fact is contrasted with a possibility (which it is not, or is, but need not have been): the conscious subject does not only perceive, say, "this stone as grey," but also perceives "this stone as *grey*" (the stone *is* something it need not be) or "this stone as *not* white" (the stone is not something it could have been). Consciousness is the feeling of negation; it involves the rise into importance of the contrast (PR 161 referring himself to "Part III, for the full account"). "Consciousness is an ever-shifting process of abstracting shifting quality from a massive process of essential existence. It emphasizes. And yet, if we forget the background, the result is triviality" (MT 108).

Normal and Abnormal Rationalities

So far, we have proposed a new cartography of normal consciousness; to do so, we have had to focus on one single individual. It is now time to use the nuclear model to approach rationality in a society of individuals. From a process perspective, negation, contrast, and structuration can operate in various ways in an ever-fluctuating universe; there are, in other words, numerous ways to "cut" into the concrete; and to claim that some ways are more straightforward than others requires the use of a more or less conventional criterion.[45] As a result, the Parmenidian understanding of the conditions of possibility of science as the discourse on the immutable, on the unchanging—a point of view appropriated by Plato, and that has framed the modern way of talking of knowledge—is definitely not applicable anymore. What is at stake here is the strict correlation between normal consciousness and normal—normative—rationality.

It is too obvious that what is rational from the perspective of a given system of thought might not be so from the perspective of another one—and hence that objectivity varies for different cultures and even for different subcultures: not only does a Melanesian not have the same "world" as a Bantu or an Asian-American, but among the latter, there are various *Weltanschauungen*. A golfer does not "exist" with the same mental picture as a nuclear scientist; a public school kid does not sympathize with the world in the same way

as a gardener or an agricultural engineer. What becomes apparent here is precisely the scattered worldview in the "civilized" West: on the one hand the world of life, on the other, the world(s) of science. There is no mystery as to why meaning was *given* in "traditional" societies, and is *pulled apart* in "modern" ones. To be as straightforward as possible: the way an individual *cuts out* reality depends on her way of positioning herself in front of the Totality. It depends on a metaphysical decision that can be ultimately reduced, from the viewpoint of the history of (Western) philosophy, to "substance or flux."[46] Needless to say that substance ontology has so far installed itself as the paradigmatic worldview, setting into movement Modernity and its trail of pitiful bankruptcies. Hence the baffling claim that can be found in some "Nietzschean" (Buddhist, if you like) thinkers—and particularly in Whitehead and Nishida: the substance-attribute/subject-predicate ontology is at the root of all evils, in the strong sense of the term. Now, within a given culture, there are so to speak micro-fluctuations that have led to the various figures of the concept of madness, something that will especially occupy us in the third part of the paper.

Rationality, Irrationality, and Arationality

A straightforward distinction between rational, irrational, and arational realms enables us to name the cultural relativity mentioned above while preserving a healthy realism. A rational proposition is congruent with a set of given rules of relevance; an irrational proposition is not congruent, but could become so, once some fixing-up is provided; the *arational* is definitely incommensurable with reason.[47] The simplest way of discussing this is to take a quick look at Aristotelian logic, understood since the seventeenth century as defined by three principles. The principle of identity states that we come to know all things in so far as they have some unity and identity. It has naturally to be linked with the substance-attribute ontology granting permanence amid flux. The principle of contradiction is somewhat the negative side of the principle of identity: it claims that the same attribute cannot, at the same time and in the same respect, belong and not belong to the same subject. According to the principle of *excluded middle*, there cannot be an intermediate between contradictories: of one subject we must either affirm or deny any one predicate.[48] Consequently, any proposition that does belong to the territory marked out by these three principles is, from an Aristotelian perspective, rational; if it does not, it is irrational (further specifications are of course needed to take account of limit-cases like the predication regarding future contingents). A contradiction is not irrational, since it possesses a clear status in the system: it is a statement that is always false and *everybody agrees* that it is so because some mistake must have occurred in the chain of

reasoning. A paradox, however, is irrational: as its etymology shows, it is a contradiction that has the appearance of truth, with the result that there are numerous *opinions* regarding the way of understanding them; no consensus prevails. The arational is for him *matter* [*hylē*] (the complement of *form* [*morphē*] in his hylomorphism).

Reasonableness

Up to this point, we have relativized rationality with the help of the concepts of irrationality and arationality. Even if there are numerous possible rationalities, the definition of the "normal" rationality is nonetheless still pending. Since discrimination needs a *meta*-criterion, a supplemental distinction has to be introduced between rational and reasonable, that is, between to convince and to persuade: one can be convinced by an argument, that is, recognize its complete rationality, and nevertheless not be persuaded at all of its immediate implications for oneself. In such a case, the universal validity of the argument is acknowledged, but it is rejected on the basis of its irrelevance.

The Greeks understood very quickly that discursivity requires founding principles coming from another faculty; hence Plato's distinction (*Republic* VI) of *noēsis* and *dianoia*, the former providing the anhypothetical principles of the latter, purely hypothetico-deductive, faculty. Later on, Aquinas differentiated "*intellectus*" (the intuitive faculty) and "*ratio*" (the argumentative faculty), and Kant stratified "*Verstand*" and "*Vernunft*." Closer to us, it is remarkable that Jung also used "*psychologische Typen*" to discriminate arguments (Jung 1921). Two questions are directly relevant to our argument: On the one hand, what are the necessary characteristics of the reasonable? On the other, what can be said of its contingent characteristics? To circumscribe them, one can appeal, first, to the now famous Husserlian *doxa* (or *Urglaube*) and its Merleau-Pontian appraisal,[49] and second, to a genetic discussion. Our question becomes: what is the origin of the "rules of relevance" evoked earlier to define rationality; why is a given set of rules socially preferred to another; why is one rationality defined as more reasonable than another? For instance, what licenses the Aristotelian principle of contradiction that seems to be a primordial requirement of any rational system?

The Urdoxastic Ontological Security

We are born with instinctive expectations to find regularities and useful stabilities; we are fully equipped to discover them—read: to construct them—and failing to do so inevitably immerses us in the abyss of "ontological insecurity."[50] In the elusive flux of events (an apparent redundancy that barely expresses the paradoxicality of the continuous emergence of totally new cosmic features),

there has to be a rock upon which we could build our lives. One recognizes here of course the Cartesian question, which is merely a modern reformulation of the old existential puzzling that has lead, through the quest for the *principle* [*archē*], to the concept of *substance* [*ousia*]. Furthermore, as Russell constantly warns us, the very dynamic of the subject-predicate languages is to transform verbs and adjectives into nouns, that is, to "transubstantiate" processes into things.

The Urdoxastic theme is present throughout Husserl's thinking, from the published work to the *Nachlaß*: in § 104 of the first volume of the *Ideen* (1913), in his "pre-Copernican" essay (1988), and in the Introduction of *Erfahrung und Urteil* (1954); it is crucial to the foundation of the "phenomenological science." The "Urdoxa" is the "perceptive faith" (Merleau-Ponty 1964, 17–30 and *passim*) that characterizes our belonging to the world: not only are we sure that what we perceive is real, but a momentary suspension of perception does not nullify that certainty. Intersubjectivity is there to warrant the durability of the concrete, the intrinsic coherence of the unfoldment of its profiles. Solipsistic thought is blatantly in contradiction with the most elementary data of our conscious experience. Each and every perception occurs with the world as background: to perceive something is also to perceive its (always already given) horizon of meaning. The Earth does not move: she is the unmoving familiar ground allowing the existence of rest and movement; she is the root, the stock, the original ark in which our spatiality is rooted. Common sense is undoubtedly pre-Euclidean in the sense that our personal universe is finite and spherical, it has a center: ourselves (Cornford 1936).

Aristotle is entirely relevant to our argument because his system can be said to *adhere* to common sense, that is, to the evidences that ground everyday life. This well-known strength became its main weakness when philosophy and science opened new paths of thought by essentially obliterating substantialism. Anyway, we are in good company here since Whitehead and Piaget make basically the same claim (see MT 74 and Piaget 1949, 70–79). Whitehead argues that, whereas the Presocratic speculations, and especially the Platonic mathematicism, attempted to overcome common sense, Aristotle's biocentrism systematized it. According to him, spontaneous thought is phenomenist, that is, prelogical, in a similar way in children and in primitive societies: both make extensive use of animistic teleology and prenumerical symbolism; there is no clear distinction between appearance and reality, subjectivity and objectivity. The world has a center[51]. The difference between children and societies is the egocentrism of the former, basically confident in his way toward socialization, and the sociocentrism of the latter, basically distressed vis-à-vis a threatening environment. Before going forward with our argument, two things need to be said in the light of the discussion of "irrational" statements: first, although Lévy-Bruhl's "pre-logical" statements have to be manipulated with

great care, all the more so since he eventually renounced his own concept, there is nothing intrinsically wrong with "mystical participation" (Lévy-Bruhl 1910, Lévy-Bruhl 1922). Second, Piaget seems to adulate normal rationality: in the Western imagination, "primitive" modes of thought have always been down-valued, and cultures making use of participatory or even paradoxical concepts speculatively slaughtered. He basically asks: who could *seriously* think of making any use of Indian philosophies that take their start from the paradox of simultaneous antagonisms?[52]

Let us finally pinpoint a recent similar attempt in Whiteheadian studies. Griffin speaks of hardcore commonsense notions (Griffin and Smith 1989, esp. 90–91) to qualify the universal and primordial beliefs that human beings do not question *in practice*: their fundamental freedom, the causal efficacy of their actions, the existence of values and of a temporal drift. All this in a realistic atmosphere. In conclusion: what is fundamentally (necessarily) reasonable is what does not endanger the Urdoxastic vital—carnal—link we maintain with the perceived world. Further thoughts are nevertheless needed to specify the debated meta-criterion.

The Genetic Approach: Pivotal Tuning

How was the flesh made consciousness? Asking how consciousness actually did arise is a question lying beyond the present inquiries (and perhaps beyond any inquiries whatsoever); we will raise more modestly the question that can be approximated by our working hypothesis: how are the individual consciousnesses in tune; how do the different pivots synchronize? This is the question of the unity in multiplicity of consciousness. The first thing to state explicitly is that there is "nothing" prior to the tuning: it is only the rationalization of an all-embracing process that gives the impression of such a consecution (sequence): "But in point of fact nature doesn't make eggs by making first half an egg, then a quarter, then an eighth, etc., and adding them together. She either makes a whole egg at once of none at all, and so of all other units" (James 1977, 103).

So far, even when the public pole was examined, the focus was on the individual. We have now to offer paths to understand the double-faced tuning that defines normal consciousness. The first (synchronic) tuning is manifested by the pivotal skeleton: there are structural adjustments to allow the state of consciousness of one individual to be leveled with the state of consciousness of other individuals. This is a collective state (or level) of consciousness that is nothing less than the product of the successive adjustments that evolution has imposed on the individuals of the different species and that education has inculcated (and sophisticated) in the case of human beings (second twofold tuning, which is the diachronic one).

Furthermore, as mental illness testifies, two geneses are possible: harmonization (attunement, evolution) of the different rational consciousnesses present, and disharmonization (involution) of these structures. With regard to evolution, three broad keys are useful: the biological, the topological, and the ethological factors: the first denominates the organic support of the embodied interacting structures; the second denominates the discrete but omnipresent environment; the third denominates the innate or learned behavioral habits. They will be used in triplets articulating the twofold stabilization—the (etho-topo)-biological "interactive diachronization" and of the (bio-topo)-ethological "integrative synchronization"—and its specular double, destabilization. With regard to involution, it is mainly the concept of schismogenesis that will hold our attention. Let us thus examine the bipolar origin of the contingent features of the reasonable—evolution in the biosphere and education in the ethosphere—in order to assess normal rationality in the context of the nuclear pivotal model of normal consciousness.

Attunement

Normal consciousness manifests the unison of experiences occurring in the historical biosphere, defined by natural selection (term used in a broad, non-technical, way) and sealed by a particular culture. Normality is conventional (ethological integrative synchronization), but first there is a fundamental bio-topological foundation. Hence our two steps: evolution in the biosphere and education in the ethosphere.

What is called the "genetic" or "biological" theory of knowledge, or even "evolutionary epistemology," is commonly used to understand the interactive diachronic tuning. But in the same way that in evolutionary theory itself the majority of contributors agree on the principles without being able to create a consensus supported by the facts, no applicable genetic model has yet reached maturity. Its intuition is the following: the cognitive functions of the human mind are not static operators; they are the transient phylogenetic result of a long adaptive process. Under the pressure of environmental adjustment (better knowledge allows a better chance for survival), intellect has become a master in the logic of solid bodies (linear causality, Euclidean geometry, etc.). This is, however, just an evolutionary adjustment to a limited—perceived—segment of a throbbing and coalescing world. This narrow scope is defined by the possibility of action in the context of natural selection. Knowledge is purely practical, utilitarian: what is reasonable is the rationality that works in everyday life, in other words, that is applicable within our practical scope. Nowadays, cognitivists argue for an overtaking of the old "evolutionary epistemology" by a constructivist evolutionary epistemology where theoretical terms are defined as invariants of operations represented by physical measurement devices and observational terms are the phylogenetically evolved features of

human perception and interpretation, defined operationally as invariants of certain actions and transformations.[53]

According to the diachronic tuning hypothesis, the categories that are *a priori* for the individual are *a posteriori* for the species. The evolutionary success of the "*Homo approximatus*" (see Galin 2003) lies in the fortunate oversimplifications the species has achieved, mainly through cultural endeavors. Let us now see how the synchronic tuning defines the normal—common—level of consciousness of contemporary individuals. To denominate the process of integrative synchronic tuning and contrast it with the schismogenesis[54]—or progressive differentiation—that will be tackled later, we use the concept of koinogenesis (from *koinos*, meaning "common," "public"). Koinogenesis is the process of convergence of individual consciousness through learning. *Learning* does not here mean simply the institutionalized educational processes from child-rearing to postgraduate studies but, more comprehensively, all the forms of communication that exploit reinforcement loops to "tune-in" individuals, all the skills of navigation in society and in the world that are "broadcasted." Tuning does not mean unification—pluralism is preserved—but the conventional locking of a set of categories and of behavioral constraints, in short: the adjustment to common values. These values, for being "consensually" validated, are basically decreed by the dominant group(s) of the society. It is not the place to analyze this, but one cannot avoid being reminded of the brilliant arguments given by Foucault, especially now that we have a better knowledge of what happened in the former USSR (Foucault 1972, Fulford 1993). In the same way medicalization of mental disorders is driven by social norms; what is called "scientific objectivity" is actually just another guise of consensual (and hence contextual) judgment (see, e.g., Stengers 1992). A quick exemplification can be given with the problem of the demonstration of the principle of noncontradiction. Although noncontradiction has appeared for a long time as an obvious basic requirement of reason, Aristotle's so-called demonstration has always been considered as flawed. This tricky issue has received a truly insightful solution with Lukasiewicz's arresting remark that the principle is actually ethico-practical. He has been followed by Apel who develops that thesis: the logical principle of noncontradiction is grounded on an ethical principle securing the possibility of *individual action* within a community (Lukasiewicz 1910, Apel 1973).

Discordancy

How could the concert of consciousness go out of tune? Again, two steps are expedient: involution in the biosphere and corruption in the ethosphere.

A global involution in the biosphere would be a mystery (although perhaps no more than evolution itself) unless one dares to appeal to theological concepts. . . . *Local* involutions—degenerative dementias, consciousness

impairment in brain-damaged individuals, epilepsy, the enigmatic dementia praecox, and the like, are, however, frequent (see, e.g., Stevens 1984). The fields involved in these puzzling out-tunings—evil and diseases—are too remote from our main thread to be treated in these lines.

Corruption in the ethosphere is directly relevant to our argument, and the key concept is, as announced, schismogenesis. Bateson defines it as *a process of differentiation in the norms of individual behavior resulting from cumulative interaction between individuals* (Bateson 1958, 175; see especially the "Epilogue 1958," 280–303). He further distinguishes symmetrical schismogenesis that occurs when there is mutual emulation, competition, rivalry (positive feedback) and complementary schismogenesis that occurs when there is mutual fitness, dominance-submission, dependence-nurturance patterns, etc. (negative feedback). Cumulation is essential—each party reacts to the reactions of the other—because it allows auto-organization and opens the doors to a synchronic understanding of pathologies, as opposed to the Freudian emphasis upon the diachronic. The concept of schismogenesis finds its origin in the anthropological research related in *Naven*, but Bateson expects to recognize it "in the progressive maladjustment of neurotic and prepsychotic individuals" (Bateson 1958, 179). For reasons that will be approached in the following discussion of Watzlawick, the schizophrenic is engaged in "security operations" (Laing 1961, 36, citing H.S. Sullivan) to restore her ontological security (see the discussion of the *Urdoxa*). These operations consist of a sustained misconstrual of experience that, instead of curing the ontological insecurity, give root to mental illnesses, that is, lock in the loss of tuning. The growing discrepancy between the patient's construal and other members of the society's construal, instead of spurring insight, leads to further delusional constructions (positive feedback). In conclusion, what is *contingently* unreasonable is what leads to schismogenesis.

Abnormal Rationality

He is not in his right mind: in everyday language, to be insane is not to be reasonable anymore. It is to have lost the discriminative criterion that allows the tuning-in with other consciousnesses, which involves the recognition and the use of normative rationality. As a result, the patient adopts one or more alternative rationalities, even if normative rationality can still be used sporadically, according to the mood, in the strong sense of the term. The rational loss induced by the criterial destruction thus means that reason gets scattered, that it "goes irrational." It is thus correct, but not enough, to equate insanity and serious impairment of the capacity for rational thought (Fulford 1986, 126–127), or to say that the criterion for mental health is the degree of agreement between two people, one being, by common accord, sane (Laing

1960, 44). Some light needs to be thrown, even fleetingly, on the complex entanglement between modes of consciousness and modes of rationality. Two main cases have been observed: with regard to the necessary feature of reasonableness, we have seen that the "Urdoxastic loss" leads to a total cosmic estrangement;[55] with regard to the contingent features of reasonableness, we have seen that if there can be an *objective* discrepancy between the modes of interaction of an individual and the socially recognized modes—that objective alienation is rooted in a collective *subjective* decision.

Aberrant Consciousness and Abnormal Rationality

A pragmatic way of approaching the problem of the status of the abnormal rationality that, so to speak, structures aberrant consciousness is to study the ins and outs of successful psychotherapies. We will look at two kinds of nonintellectual therapies, the Palo-Alto or Watzlawickian therapy and hypnosis.

Ferenczi and Rank were perhaps the first to have questioned the usefulness of intellect in the process of therapeutic change.[56] Against the theoretical knowledge of the analyst, they put forward real-life as it is lived ("*erleben*"). The "process thought" of Paul Watzlawick (1921–), which attempts to give a rational framework to Don D. Jackson's (1920–1968) and Milton H. Erickson's (1901–1980) rather intuitive therapeutic strategies offers a good exemplification of that much needed debate. Let us resume the discussion that started in *Searching for New Contrasts*.

Watzlawick is enormously indebted to Bateson's speculations for two complementary keystones of his systematic attempts. On the one hand, his double-bind theory shows how the entrapment in a closed network of paradoxical relations favors—if not generates—schizophrenia. On the other, his generalization of the concept of feedback causation, and especially of negative feedback, provides the tool to understand the internal equilibrium some pathological systems reach through repeated auto-corrections. Double bind and feedback rely on the idea that relationships are always the product of multiple descriptions, they cannot be internal to one single individual:

> Only if you hold on tight to the primacy and priority of relationship can you avoid dormitive explanation. The opium does not contain a dormitive principle, and the man does not contain an aggressive instinct. [. . .] If you want to talk about, say, "pride," you must talk about two persons or two groups and what happens between them. [. . .] As binocular vision gives the possibility of a new order of information (about depth), so the understanding (conscious and unconscious) of behavior through relationship gives

> a new logical type of learning. (In *Steps to an Ecology of Mind*, I have called this Learning II, or deutero-learning.)[57]

The Ariadne's clew is the well-known Palo-Alto claim (made as far back as the 1960s): the vast majority of psychopathologies are due to trouble with communication (see, e.g., Ruesch and Bateson 1951). It is worth reminding ourselves that this claim can actually be traced back to Milton Erickson's reading of Ernest-Charles Lasègue (1816–1883) and Jules Falret's (1824–1902) seminal paper "La folie à deux" (1877), where the ego-logical and organic etiology was really undermined for the first time (see Rausky 1998). What is furthermore of the highest interest in that paper is the use of hypnosis to understand the (linear) induction of the pathology. In other words, the biology and the rationality of psychopathologies were relegated to a position of secondary importance while the affective dimension was gaining decisive impetus.

Three steps would be expedient to address the nucleus of Watzlawick's system of human communication and, hence, of therapeutic process; we provide here only a brief synopsis of the synthesis available in our "Art of Epochal Change."[58] First step: to explore the axiomatic of communication of his *Pragmatics of Human Communication*. Of the five interdependent axioms it carves out, let us remind ourselves of the first one: it is impossible *not* to communicate.[59] Second step: to question how this theoretical frame results in the structuration of *Change, Principles of Problem Formation and Problem Solution* around the following pragmatic binomial: first-order change is a change occurring *within* a given system—which remains itself unchanged; second-order change is constituted by the *alteration* of the structure of a given system—which is thus intrinsically modified, restructured. Third step: to specify the status of paradoxes with the help of *The Language of Change*, and thereby to show how Watzlawickian brief therapy argues for the usefulness (if not the necessity) of using a so-to-speak abnormal rationality to deal with aberrant states of consciousness. The keystone is the direct access paradoxical utterances give to the affective core of any state of consciousness (see above). Unsurprisingly, we meet again with hypnosis (or, come to think of it, with the mysterious Freudian transference): when a rationality different from the normal rationality is being used, the state of consciousness—the way a given individual relates to herself, to others, and to the world—gets modified. The use of paradoxes induces, *volens nolens*, a consciousness that is not fully attuned with normal consciousness. Specularly, it is well known that the depiction of the non-normal states requires different categories and structures of thought than the account of everyday experiences.

Hypnosis ranks, with hysteria and dreams, among the main clues that put psychologists on the path of the extra-marginal. Let us introduce its

characteristics with the help of François Roustang's powerful speculations, inspired in part by Léon Chertok and Milton H. Erickson.[60] Chertok proposes a few provisional definitions of the hypnotic state stemming from the old—but still relevant—concept of animal magnetism[61] and insisting on the affective core of the hypnotic trance; it is a natural potentiality that manifests itself already in the relation of attachment to the mother; it is the matrix, the crucible in which all subsequent relations will come within its scope; its essence is very archaic, prelinguistic, presexual.[62] Keeping this in mind, let us first sketch the induction of the hypnotic state. For the sake of the present argument, we can bypass the distinction between self-hypnosis and hypnosis suggested on a willing and cooperative subject by a clinician. The basic conditions for entering hypnosis are fairly simple: it is just a matter of fixation of ones own attention. As one concentrates on a single stimulus by gradually bracketing most of the other afferent stimuli, attention becomes more and more invasive and the waking state gets dramatically transformed: sense perception is now nuclear, while action becomes cataleptic and reason drifts from its judgmental concern to get closer to affects. Discussing the related topic of attention, a major mystic of the twentieth century—Simone Weil—puts it this way: "attention consists in the suspension of one's thought, in making oneself available, empty and penetrable by the object; it consists in keeping in oneself the proximity of thought and of the various acquired knowledge that one is usually forced to use, but at a lower level and without contact with it."[63]

What about the characteristics of this gradual relaxation or sleepiness? Hypnotic wakefulness features indeed, as its etymology suggests, many affinities with ordinary sleep: muscular relaxation and redistributed brain activity (patterns that remind us of paradoxical sleep as disclosed in EEG and EMG), anesthesia and/or hyperesthesia (although not genuinely sensorial), amnesia (while hypermnesia is possible), perceptive distortions (including hallucinations), increased suggestibility (besides post-hypnotic—that is, deferred—suggestions) and the possibility of role-enactment and of alteration of the personality.

But it features as well remarkable differences (that James would claim are only of degree) with ordinary sleep; to outline them coherently, it is essential to go through the four (non-necessary) steps to full hypnotic actualization. First, the induction of the hypnotic state occurs through perceptive fixedness; fascination starts where ordinary perception stops. Second, the hypnotic state installs indetermination: all customary differences can be abolished, paving the way for confusion, blindness, loss of reference point, and possible feeling of helplessness. Third, the positive side of the dispersed attitude of attention is the opening of the possible: resting on this indeterminate waiting, spring dissociations, withdrawal and hallucinations; and with them the possibility

of transforming one's appraisal of life. Everything can be reframed: percepts can be put in a wider context by reverie, absence, or imagination. Fourth, the hypnotic trance displays itself as enhanced vigilance, mobilized power, energy ready to implement action, that is, to shape the world. All the acquired knowledge is gathered, actively taken in, and one has them at one's disposal. This explains why the hypnotherapist suggests only what is possible for the patient; he reveals the power the patient has over his own becoming.

Roustang concludes: "to understand something of paradoxical wakefulness, we have to do violence to ourselves and—at a great expense—invent in our culture a new cosmology and a new anthropology."[64] All the consequences of the contiguum of the states of consciousness and of the levels of beings, that is, of bodies, have to be thought. This is exactly what panexperientialism provides: one single onto-psychical field that allows, so to speak, only unwillingly, the bifurcation of subject and object. Since there is one organizing and differentiating power endowed by many centers of forces, the mesocosmic perception of an object by a subject ceases to be mysterious: in pure experience, subject and object, subject and subject, grow together and reciprocally (com-)prehend one another.[65] Each experience has both a physical and a mental dimension that can be pulled apart only in abstraction. The concreteness of experience, in other words, goes beyond the limited perspectives of physicality and mentality. After many others, Deleuze has suggested the metaphor of the fold to intuit how such a bimodal ontology is possible; James provides us with a concept, Whitehead with a categoreal scheme.

Conclusions

This chapter has tried to clear the way for a more holistic, less eliminative topology of consciousness. Its goal—a philosophical analysis of the intricacies of the concepts of consciousness and rationality—was undoubtedly very bold and its author will be happy even if only a partial success is acknowledged. A few last clarifying remarks are now advisable.

First, the nuclear pivotal model has been designed to meet normal (instrumental) consciousness as it is lived. To the nuclear restriction, one has to add the varying emphasis that, in each individual, inevitably falls on this or that feature of the scheme. Moreover, this precaution is especially relevant when understanding the slow access of children to fully constituted, normal consciousness matters: that long process could be described as a journey from the private and public edges of the diagram, through self-consciousness and social consciousness, to its core, together with the synchronic tuning evoked.

Second, the proper theorization of altered states of consciousness is likely to require a start from a different pivotal model; only experience could

decide here on its characteristics: don't we speak of mystical experience as transcending language, time, (social) embodiment and even sometimes affect and reflect? Is it feasible to argue for one single core concept anyway?

Third, the quest for a criterion defining normal consciousness and normal rationality finally results in elevating the praxeological constraints. The conditions of the possibility of acting—within and upon the socionatural environment in a competitive context—asks for filtration, comparison, and structuration of data according to rules that have converged through a long phylogenetic and koinogenetic process. A certain rationality allowing the exploitation of clear and distinctly localized images delivered by sense-perception, their strict objectification, the correlative distinction of a "*subjectum*"—or substantial self—separate from others by sharp boundaries has been selected. That self-centered awareness is often contrasted with the cosmocentric awareness of mystics, where acting is replaced by renunciation, the boundaries are blurred or merged, self is undifferentiated, nonlocalized, not distinct from (but resonant with) environment, and the stretch of protention-retention is replaced by a focus on the experiential "now." However, there are *various types* of "receptive consciousness" and that simplistic bipartition (see Deikman 1996) does not do justice to their express characteristics (a distinction should be made, at the very least, between ecstasy and trance). Besides that, being capable of acting in a competitive context makes the fundamental difference between the ill and the sane. Actually, adaptability, opening to the opening that is the world, makes the difference as well between the ill and the mystic. To be a patient is no longer to be fully an agent (Fulford 1994): the psychotic cannot, or is not willing to, share his world (i.e., world-sharing is an activity, not a totally passive synthesis). In the complex landscape established by the synergy of hallucination, delusion, and lack of insight, the patient apparently rules as the absolute sovereign on a purely chimerical world—and suffers precisely from this watertight closing (it only seems agentive, it is really totally passive). Smothering by the chimerical world is the price to pay for absolute domination in dementia (the price of the illusion of absolute unrestricted agency is absolute unrestricted passivity). But the world is real precisely because it is always different from what the subject thought, because it has, so to speak, a life of its own, a nonrationality in James' terms. Made frozen, strictly predictable, mechanistic in dementia, its full-fledged reality vanishes, its causality is denied, and the sheet anchor of the body becomes an eerie trap. To put it in another way: when in dementia agency has become only devoted to chimerical world-building, it is, from the perspective of the individuals dwelling in the common world, a purely passive activity.

Fourth, a subsidiary question gets mentioned: the status of animal consciousness. Here again, the nuclear pivotal model can serve only as an analogy. However, if we accept the necessity of following the path Whitehead

named the "reformed subjectivist principle"—to start from our experience and to carefully determine what can be generalized from it—it becomes a necessary analogy. According to the philosopher, there is no doubt that all (higher) animals enjoy nonverbal thinking, aesthetic experience, and even moral experience; as their behavior displays, they no doubt have a self- and global-awareness. Griffin's criterion (see his contribution to this volume) is basically adaptiveness, behavioral versatility: consciousness confers a significant adaptive advantage that is noticeable in terms of problem solving (Griffin 1981, Griffin 1984). Since there is a qualitative evolutionary continuity of mental experiences among multicellular animals, that is, no dichotomy between human language and animal communication, he raises the Whiteheadian "panpsychic" hypothesis. By definition, indeed, all beings are plugged into reality and endure some reactivity: from simple responsiveness (reaction triggered by stimulus—or let's even think of Newton's third law of motion: "action/reaction") to creativity.

Forthcoming issues of the WPN Studies will feature an examination of the conditions of possibility of the definition of a spectrum of consciousness and of its correlate, an ontological scale that bypasses the difficulties of materialistic dualism, vitalism and panpsychism. It will be the occasion as well to dive into *Process and Reality*'s genetic analysis of consciousness.

Notes

1. See Griffin 1984, 88. (Notice the difference between the late Harvard zoologist/ethologist Donald Redfield Griffin and the Claremont theologian David Ray Griffin.)

2. "La prise de conscience est un certain effet de scène" (Derrida 1972, 329).

3. "La conscience est une mise en faisceau, une organisation de connaissances (*cum scrire*) donc une opération unifiante accomplie avec intention et suivant un dessein. [. . .] Elle ramasse un être dispersé" (Pradines 1943, 6).

4. "Un être capable de se multiplier sans se diviser, d'étendre au loin son regard dans l'espace sans perdre la référence des points aperçus au lieu où il se trouve, de rappeler semblablement son passé sous la perspective du présent qui s'en distingue tout en l'utilisant, est par là con-scient" (Pradines 1943, 7).

5. We use aberrant in order to avoid the usual direct correlation between "altered states of consciousness" and "drug-induced states."

6. "Definitions are like belts; the shorter they are, the more elastic they need to be" (Toulmin 1961, 18).

7. Part I of his magnum opus, *Process and Reality*, actually employs five criteria to define speculative philosophy (consistency, coherence, applicability, adequation, and necessity). A fair interpretation of that set of constraints is a demanding task, far

beyond our present goal. One twofold point is, however, relevant: the requirement of an *applicable* categoreal *democracy*. Applicability is basic insofar as full-fledged concreteness is to be in the scheme's sight; democracy names the double subconstraint: independence (or contributivity, i.e., concepts are not reciprocally deducible) and interdependence (co-presuppositionality). The limited nature of this paper necessitates only a tangential approach to these core criteria, for a more exhaustive treatment see Weber 2006.

8. An earlier version of this paper was presented at the Fourth International Conference on Philosophy and Psychiatry, Madness, Science and Society, in Florence, August 26–29, 2000. Its argument does not presuppose the speculations of our "The Art of Epochal Change" (to be found in the first Whitehead Psychology Nexus Studies: Riffert and Weber 2003, 252–281), but its reading would help setting the stage of numerous discussions.

9. A polysemial concept—or "polyseme"—is simply a concept that carries various meanings. Instead of having a one-to-one relationship between the signifier and the signified, there is a one-to-many correspondence. One can speak of the leg of a human being, of a horse, of a table, or of a cooked lamb lying on one's plate, without generating much confusion. Polysemiality is indeed a very common—and harmless—feature of natural language as it is currently used (i.e., in everyday life): the contextualization of the actual utterances usually prevents any difficulties. Reading a speculative philosopher confronts us nevertheless with a particular form of the hermeneutical problem: how to make sense out of texts that champion polysemiality? A polyseme acts as a semantic cluster focused on one privileged experience synthesizing "in the flesh" all the partial meanings constituting the cluster. There is a movement of overtaking, from the hierarchy of the various meanings to a "primordial" experience that is the author's, as purified (universalized, i.e., rationalized) from its personal contingencies as possible. That raw *experience* is, quite obviously, richer than the partial converging meanings: it embodies the ontological excess, or surplus, that lies at the center of the cluster, constituting its nucleus. Solely the beatings of this experiential heart can nourish the hierarchized network's dynamism. Polysemiality occurs at the conceptual or lexical level. Of course, communication does not happen with the occasional uttering of single words, whose intrinsic richness would be sufficient to trigger the manifestation of an entire worldview. (This being perhaps the case in most animal forms of communication.) A similar semantic overtaking mechanism takes place at the propositional or syntactical level. It is embodied by what Quine calls the "interanimation of sentences." The discursive concatenation of sentences introduces a semantic vitality that opens the text to the concrete (or at least to a "meta" level). There is, in other words, a prismatic virtue of propositional chains that explains how intentionality imposes itself, so to speak, *interstitially* (see Merleau-Ponty 1992, 46–47 and 61–62; Quine 1960; Richards 1965).

10. MT 35. In his last philosophical paper (Whitehead 1936), he claims: "If the experience be unusual, verbalization may be, for us, impossible. We are then deprived of our chief instrument of recall, comparison, and communication."

11. Besides Hegel, James, Bergson, Whitehead, Merleau-Ponty and the like, see, for example, Hurley 1997 or Lucas 1972. Armstrong-Buck (1989) defines self-consciousness in the following way: "subjective form characterized by a vivid feeling

of 'mineness' as it unifies high-grade multiple contrasts." Interestingly enough, her argument offers some similarities with ours (that was developed independently), as when she articulates "agent self-consciousness," "public self-consciousness," "private self-consciousness" and "pure self-consciousness."

12. See below our comment on Bergson's "fluid images" in his "Introduction to Metaphysics," reprinted in *The Creative Mind: An Introduction to Metaphysics* (Bergson 1975).

13. "Le corps sait dire je tout seul" (Serres 1985, 16).

14. Bergson 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" (in Bergson 1959, 883).

15. Articular capsule, periosteum, tendons, joints, muscles house sensitive corpuscles and nerve endings similar to the skin's (see Sherrington 1906, 132–133 and 1940, 309).

16. "At any moment of our waking life, one part of our experience is a mass of obscure sensation connected with breathing and digestion, the pressure of clothes, vague hungers and fatigues, our bodily fitness or unfitness. We seldom think of these feelings, but they are there undoubtedly [. . .]" (Blanshard 1939, vol. 1, 67, citing Bradley's *Appearance and Reality*, 2nd ed., 293).

17. PR 81 (and see 64, 119–122, 176–180, 311–318). In Merleau-Pontian terms, "la conscience est l'être à la chose par l'intermédiaire du corps," "la chose [. . .] se constitue dans la prise de mon corps sur elle" (1945, 161 and 369).

18. "Ce qui sent sans que ce soit par l'intermédiaire d'un sens est dans son essence affectivité. [. . .] L'affectivité est l'essence de l'ipséïté" (Henry 1963, 577 and 581).

19. See the following conceptual bounds: James 1884; Sousa 1987; Cytowic 1989; Brown 1988; Lazarus 1991; Damasio 1994.

20. For Pierre Bourdieu's cardinal concept, see, for example, Bourdieu 1994.

21. Definition adapted from Hagège 1986, 131, 143, 202.

22. "A three-fold commonness" (Arendt 1978, 50). This has to be read with the Greek idea of truth as common logos in mind.

23. "Naître du monde et naître au monde"; Merleau-Ponty continues: "The world is already constituted; in the first case we are acted upon, in the second case we are open to an infinite number of possibilities. [. . .] It is impossible to determine precisely the 'share contributed by the situation' and the 'share contributed by freedom'" (Merleau-Ponty 1945, 517).

24. "La science manipule les choses et renonce à les habiter" (Merleau-Ponty 1964, 9 et 12–13).

25. "Les deux racines hébraïques majeures qui servent de pivot au réseau sémantique qui véhicule la pensée biblique du corps sont ruah et bâsâr: le souffle et la chair. Un être humain est une chair insufflée, un souffle charnel, une globalité dynamique et indivise" (Malherbe 1987, 56–57).

26. Bateson, Jackson, Haley and Weakland 1956. See, for example, Bateson 1979, 127–128 on Pavlov's paradigm of experimental neurosis.

27. "Le philosophe n'est pas venu à l'unité, il en est parti" (Bergson 1959, 1362). "À mesure que nous cherchons d'avantage à nous installer dans la pensée du philosophe au lieu d'en faire le tour, nous voyons sa doctrine se transfigurer. [. . .]

Tout se ramasse en un point unique [. . .] en ce point est quelque chose de simple, de si extraordinairement simple que le philosophe n'a jamais réussi à le dire. Et c'est pourquoi il a parlé toute sa vie [. . .] il n'a fait autre chose [. . .] que rendre avec une approximation croissante la simplicité de son intuition originelle. Toute la complexité de sa doctrine, qui irait à l'infini, n'est donc que l'incommensurabilité entre son intuition simple et les moyens dont il disposait pour l'exprimer" (Bergson 1959, 810).

28. "L'intuition dont nous parlons porte donc avant tout sur la durée intérieure. Elle saisit une succession qui n'est pas juxtaposition, une croissance par le dedans, le prolongement ininterrompu du passé dans un présent qui empiète sur l'avenir" (Bergson 1959, 1272–1273).

29. "Concentrons-nous donc sur ce que nous avons, tout à la fois, de plus détaché de l'extérieur et de moins pénétré d'intellectualité. Cherchons, au plus profond de nous-mêmes, le point où nous nous sentons le plus intérieur à notre propre vie. C'est dans la pure durée que nous replongeons alors, une durée où le passé, toujours en marche, se grossit sans cesse d'un présent absolument nouveau. Mais, en même temps, nous sentons se tendre, jusqu'à sa limite extrême, le ressort de notre volonté. Il faut que, par une contraction violente de notre personnalité sur elle-même, nous ramassions notre passé qui se dérobe, pour le pousser, compact et indivisé, dans un présent qu'il créera en s'y introduisant. Bien rares sont les moments où nous nous ressaisissons nous-mêmes à ce point: ils ne font qu'un avec nos actions vraiment libres" (Bergson 1959, 664–665).

30. "nous sommes véritablement placés hors de nous dans la perception pure, [. . .] nous touchons alors la réalité de l'objet dans une intuition immédiate" (Bergson 1959, 222).

31. "Cette intuition, on nous ne la communiquera jamais toute faite, car le langage qu'on nous parle, si spéciaux et si appropriés qu'on en suppose les signes, ne peut exprimer que des ressemblances, et c'est d'une différence qu'il s'agit" (Bergson 1903, viii–ix).

32. "La durée et le libre choix" (Bergson 1959, 729).

33. "La conscience que nous avons de notre propre personne, dans son continuel écoulement, nous introduit à l'intérieur d'une réalité sur le modèle de laquelle nous devons nous représenter les autres" (Bergson 1959, 1420).

34. "Nous appelons ici intuition la *sympathie* par laquelle on se transporte à l'intérieur d'un objet pour coïncider avec ce qu'il a d'unique et par conséquent d'inexprimable" (Bergson 1959, 1395).

35. "Intuition signifie donc d'abord conscience, mais conscience immédiate, vision qui se distingue à peine de l'objet vu, connaissance qui est contact et même coïncidence.—C'est ensuite de la conscience élargie, presant sur le bord d'un inconscient qui cède et qui résiste, qui se rend et qui se reprend [. . .]" (Bergson 1959, 1273; trans.: Bergson 1946, 35–36).

See "L'intuition philosophique," in Bergson 1959, 1365.

36. See what has been said earlier of Whitehead's criterion of axiomatic coherence.

37. See his "reformed subjectivist principle" (PR 160) evoked below.

38. Nishida 1990. See also Heidegger 1927, § 29 on the concept of *Befindlichkeit*.

39. In this, Whitehead follows the path cleared by Bergson, but also by James: "The principle of pure experience is also a methodological postulate. Nothing shall be admitted as fact, it says, except what can be experienced at some definite time by some experient; and for every feature of fact ever so experienced, a definite place must be found somewhere in the final system of reality. In other words: Everything real must be experienceable somewhere, and every kind of thing experienced must be somewhere real" (James 1976, 160).

40. "The animal consciousness does not easily discriminate its dependence on detailed bodily functioning. Such discrimination is usually a sign of illness. When we observe the functionings of our viscera, something has gone wrong. We take the infinite complexity of our bodies for granted" (MT 29).

41. See the Heideggerian binomial *Sorge/besorgen*.

42. The *Principles of Psychology* indicates that there are various categories of fringe experiences. Rather than attempting an exhaustive list or a systematic analysis of their relations to each other, it offers a few examples: feelings of familiarity (James 1950, 252), feelings of knowing (251), feelings of relation (245), feelings of action tendency (253), attitudes of expectancy (250), feelings of "rightness" or being "on-the-right-track" (259–261). For all this, see Galin 1994.

43. His last book presents his views in a non-technical manner: see MT 110.

44. "À partir de la *connaissance*, l'existence d'une personne n'est isolée de celle de l'ensemble que d'un point de vue étroit et négligeable. Seule l'instabilité des liaisons (ce fait banal: quelque intime que soit un lien, la séparation est aisée, se multiplie et peut se prolonger) permet l'illusion de l'être isolé, replié sur lui-même et possédant le pouvoir d'exister sans échange" (Bataille 1973, 100).

45. See, for example, Edward Sapir, Benjamin Lee Whorf, Edward E. Evans-Pritchard, Paul K. Feyerabend.

46. More fundamentally, the way the individual *trusts* the World should be pictured with the help of the Husserlian concept of *Urdoxa* and its Merleaupontian cartography.

47. See *A Pluralistic Universe*'s concept of "non-rational."

48. See, respectively, *Metaphysics* Beta, 4 and Iota, 1; *Metaphysics* Gamma, 3 and *Posterior Analytics* I, 77a10–22; *Metaphysics* Gamma, 7 and *Posterior Analytics* I, 77a22–25.

49. Merleau-Ponty 1965, 266. See Merleau-Ponty 1945, 85, 395, 491; Merleau-Ponty 1964, 17, 41, 222, 234, 270, 272, 286, 292, 308, 312. Unfortunately, we cannot discuss here Santayana's "animal faith."

50. Laing's term (1960) was inspired by Tillich's *The Courage to Be* (1952).

51. See Eliade powerful (however controversial) inquiries.

52. See, for example, Heinrich Robert Zimmer and Sarvepalli Radhakrishnan.

53. Diettrich 1998. For the main inflections of this fairly simple grounding principle, see M. Weber's Introduction in Weber 2004.

54. We borrow of course Bateson's term: see, for example, Bateson 1935, 178–183.

55. The link that Laing exploits between existentialists philosophies and psychopathologies could be fruitfully put in perspective with the help of the cross-examination of Heideggerian concepts and Gnostic dogmas: see Jonas 1934.

56. According to Léon Chertok (1989, 226), who cites Ferenczi 1924.

57. Bateson 1979, 143. See as well Huxley's *Point Counter Point* and Durrell's *Alexandria Quartet*.

58. See (1) Watzlawick 1967, (2) Watzlawick 1974, and (3) Watzlawick 1978.

59. "Behavior has no opposite [. . .] there is no such thing as nonbehavior or, to put it even more simply: one cannot *not* behave" (Watzlawick 1967, 48).

60. See especially Roustang's *Qu'est-ce que l'hypnose?* (1994).

61. The concept has been recently reboosted by Boris Cyrulnik (see, e.g.,Cyrulnik 1997).

62. "On peut seulement affirmer que c'est au niveau de l'affect, c'est-à-dire de la réalité la plus évidente, puisqu'elle est de l'ordre du vécu, et la plus difficile à comprendre. [. . .] C'est un quatrième état de l'organisme, actuellement non objectivable (à l'inverse des trois autres : veille, sommeil, rêve : une sorte de potentialité naturelle, de dispositif inné prenant ses racines jusque dans l'hypnose animale, caractérisé par des traits qui renvoient apparemment aux relations pré-langagières d'attachement de l'enfant et se produisant dans des situations où l'individu est perturbé dans ses rapports avec l'environnement. L'hypnose garde sa spécificité par rapport à la suggestion, bien que celle-ci, sous quelque forme qu'elle se manifeste, soit nécessaire à la production de celle-là. La suggestion nous apparaît ainsi comme la relation primaire, fondamentale entre deux êtres, la matrice, le creuset dans lequel viendront s'inscrire toutes les relations ultérieures. Nous dirons encore qu'elle est une entité psycho-socio-biologique indissociable, agissant à un niveau inconscient très archaïque, pré-langagier, pré-sexuel, et médiatisant l'influence affective que tout individu exerce sur un autre" (Chertok 1989, 260–261).

63. "L'attention consiste à suspendre sa pensée, à la laisser disponible, vide et pénétrable à l'objet, à maintenir en soi-même la proximité de la pensée, mais à un niveau inférieur et sans contact avec elle, les diverses connaissances acquises qu'on est forcé d'utiliser" (Weil 1957, 76–77).

64. "Pour comprendre quelque chose de la veille paradoxale, il faut nous faire violence et inventer dans notre culture, à grands frais, une nouvelle cosmologie et une nouvelle anthropologie" (1994, 98–99).

65. "Grâce à cette puissance qui organise et différencie, représentée par l'anticipation, toute une série de faux problèmes tombent d'eux-mêmes. Il n'y a plus à se demander comment un sujet peut percevoir un objet, puisque l'un et l'autre grandissent ensemble et s'appréhendent dans une action réciproque, ni comment un humain peut en comprendre un autre, puisqu'ils n'existent dès l'origine que par cette compréhension, ni comment peuvent se tisser entre eux des interrelations: l'identification et le lien affectif n'ont dû être inventés que par la supposition erronée que les individus d'abord confondus, ont été ensuite séparés" (1994, 87).

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