



Essay

'Apart from the Experiences of Subjects There Is Nothing, Nothing, Nothing, Bare Nothingness'—Nature and Subjectivity in Alfred North Whitehead

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Abstract: While long ignored, the philosophy of Alfred North Whitehead has attracted considerable interest and wide academic reception since the 2000s. One reason for the renewed interest in Whitehead's work is most certainly that his philosophy and concepts offer a way out of dualistic schemes of thought that have dominated the conceptual framework of the West since modernity. In my paper, I focus on Whitehead's undoing of the opposition between nature and subjectivity, for it is a crucial aspect of Whitehead's concept of nature not to exclude subjectivity from the 'realm of nature'. For Whitehead, subjectivity is a fundamental feature of the whole of reality and by no means exclusively human, leading to a radically non-anthropocentric, pluralistic notion of the subject.

Keywords: Alfred North Whitehead; philosophy of nature; philosophy of subjectivity; metaphysics; Donna J. Haraway



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1. Introduction

While long ignored, the philosophy of the mathematician and process philosopher Alfred North Whitehead has attracted considerable interest and wide academic reception since the 2000s. Nowadays, numerous publications are being issued in various scientific fields almost on a daily basis—from philosophy and theology to sociology and media theory. Isabelle Stengers is certainly one of the most important Whitehead scholars of recent times. With her interpretation of and approach to Whitehead, she has contributed decisively to his increased reception. In addition, Donna J. Haraway, Bruno Latour, and Karen Barad, for whom Whitehead implicitly or explicitly serves as an important source of inspiration, should not go unmentioned. It seems that the significance and relevance of Whitehead's concepts and ideas for the humanities have been fully realized only recently.¹ Another reason for the renewed interest in Whitehead's work is most certainly that his philosophy and concepts offer a way out of dualistic schemes of thought that have dominated the conceptual framework of the West since modernity. It is specifically the nature–culture dualism that is, one might say, the primordial dualism from which most other dualisms have derived, with one side always considered superior while the other is devalued (mind and matter, body and soul, subject and object, facts and values, male and female, human and animal, and so on). It is for this reason that the feminist scholar, biologist, and historian of science Donna J. Haraway states that 'queering' what is conceived of as nature in Western modernity is her "categorical imperative" (Haraway 1994, p. 60). One might say that this is also Whitehead's main concern when he tries to conceptualize nature in a radically non-modern way. However, it is important to add that for both Haraway and Whitehead, in a pragmatist vein, this 'queering' is "not for the easy frisson of transgression, but for the hope for livable worlds" (Haraway 1994, p. 60).

It is not possible to treat Whitehead's concept of nature exhaustively within the scope of this paper, for his whole philosophy, his whole metaphysics, is a philosophy of nature, even a cosmology, and thus provides a comprehensive analysis of the fundamental ontological

structures of all that exists. Since it is an important aspect of Whitehead's concept of nature not to exclude subjectivity from the 'realm of nature', I will focus on his notion of subjectivity in the following and trace how Whitehead conceptualizes subjectivity as being part of nature, as being everywhere in nature, leading to a radically non-anthropocentric, pluralistic notion of the subject.

As a process philosopher, for him the world doesn't consist of individual substances but of processes, or, more precisely, of an interweaving of processes or events. Understanding processes as individual 'acts of experience', i.e., as subjects, he can claim that the whole world consists of subjects, and he can even claim "that apart from the experiences of subjects there is nothing, nothing, nothing, bare nothingness" (Whitehead [1929] 1978, p. 167). Whitehead hence radically generalizes and pluralizes the concept of the subject.

Since Whitehead's notion of the subject is closely linked to what he is determined to avoid in his metaphysics, namely what he calls "the bifurcation of nature", I first need to trace what he meant by this notion. In the second part of my paper, I will discuss Whitehead's notion of subjectivity.²

2. The Bifurcation of Nature or the Unconscious Metaphysics of Modernity

Whitehead describes modern thought as plagued by a "radical inconsistency" (Whitehead [1925] 1948, p. 77) which he calls "the bifurcation of nature". According to Whitehead, this fundamental "incoherence" (Whitehead [1929] 1978, p. 37) at the foundation of modern thought is reflected not only in the concept of nature itself, but in every field of experience—in modern theories of experience and subjectivity, of ethics and aesthetics, as well as many others. In "The Concept of Nature" (1920), Whitehead states that nature splits into two seemingly incompatible spheres of reality at the beginning of modern European thought in the 17th century: 'Nature' on the one hand refers to the (so-called) objective nature accessible to the natural sciences only, i.e., the materialistically conceptualized nature of atoms, molecules, cells, and so on; at the same time, however, 'nature' also refers to the (subjectively) perceptible and experienced, i.e., the appearing nature with its qualities, valuations, and sensations. Whitehead considers this modernist division of nature in thought—the differentiation of primary and secondary qualities, of 'first' and 'second' nature, of a material and mental sphere—a fundamental, serious, and illicit incoherence. His term for this incoherence is 'bifurcation of nature', for the question of how these two concepts of nature—'objective' and 'subjective'—relate to each other remains largely unresolved for Whitehead within the philosophical tradition of modernity. Avoiding this inconsistency and sketching a metaphysics beyond the bifurcation of nature, which necessarily implies a revision of the modern concept of both subject and experience, guides most of Whitehead's thought (Cf. Stengers [2002] 2011):

What I am essentially protesting against is the bifurcation of nature into two systems of reality, which, in so far as they are real, are real in different senses. One reality would be the entities such as electrons which are the study of speculative physics. This would be the reality which is there for knowledge; although on this theory it is never known. For what is known is the other sort of reality, which is the byplay of the mind. Thus there would be two natures, one is the conjecture and the other is the dream.

Another way of phrasing this theory which I am arguing against is to bifurcate nature into two divisions, namely into the nature apprehended in awareness and the nature which is the cause of awareness. The nature which is in fact apprehended in awareness holds within it the greenness of the trees, the song of the birds, the warmth of the sun, the hardness of the chairs, and the feel of the velvet. The nature which is the cause of awareness is the conjectured system of molecules and electrons which so affects the mind as to produce the awareness of apparent nature. The meeting point of these two natures is the mind, the causal nature being influent and the apparent nature being effluent. (Whitehead 1920, 30f.)

The bifurcation of nature always takes place when two separate, incompatible realms of reality are assumed: the never directly perceivable ‘reality’ or material sphere on the one hand, and the ‘appearance’ or mental sphere on the other. Whitehead’s thesis of the bifurcation of reality thus also provides an explanation not only for the historical–systematic origin of the categorical–binary distinctions that characterize the philosophical tradition of modernity, but also for the modern bifurcation of modes of knowing, that is, “the division of territory” (Whitehead [1925] 1948, p. 145) between the natural sciences, dealing with the ‘objective world’, and philosophy, dealing with the ‘subjective conditions’ of knowing this objective world.³

Against this background, the bifurcated nature can be interpreted as a “historical-discursive constellation” that, along with the basic conceptual presuppositions—which mostly remain implicit and hence theoretically unfounded—“forms the historical self-evidence of modernity” (Sehgal 2016, p. 15, my translation). As the “implicit metaphysics of modernity” (Sehgal 2016, p. 15, my translation) or, following Fredric Jameson’s theory of the political unconscious (Jameson [1981] 2002), as the unconscious metaphysics of modernity, it fundamentally determines the conditions and terms as well as the content and form of modern thought. Whitehead thus also refers to thinking in the mode of the bifurcation as the “general form of the forms of thought” (Whitehead [1933] 1967, p. 12) of modernity: in addition to the stipulation and fixation of the content—that is, what can and may be thought at all qua the first principles—it also adheres strongly to the way, the form, or the mode of thinking (Cf. Halewood 2011, p. 6). With Whitehead, then, the bifurcation can be understood as the outstanding mode of modern thinking, as the modern convention, culture, or habit of thought par excellence.

In assessing Whitehead’s interpretation of the history of ideas, I would like to point out, with Melanie Sehgal, that his own conflation of historical and systematic analysis, as it is also brought to bear in his theory of bifurcation, must be taken into account. It is pivotal, then, to consider Whitehead’s understanding of philosophy as well as history: he addresses “the modern way of thinking initially as *one* system of thought, *as if* it were one philosophical system” (Sehgal 2016, p. 15) and, via this carving out of a conceptual system, links areas that are themselves treated separately in the tradition of modernity. In other words, Whitehead’s ‘modernity’ has to be understood as a historical and systematic construct, which is assigned a specific function within his thought.⁴ His generalizing approach and the corresponding generalized use of the notion of modernity may seem questionable from a philosophical as well as historical viewpoint, but can be justified along with Sehgal by means of the Whiteheadian conflation of historical and systematic considerations. For, according to Whitehead, it is precisely and primarily in this entanglement that the fundamental incoherence that characterizes modern thought becomes apparent: the modern basic principles are incompatible or, as in the case of the concept of nature, characterized by an internal contradiction. Thus, Whitehead also deploys a specific reading method: his starting point for assessing the history of ideas is always the problem of the bifurcation of nature and therefore that of (mostly) implicit presuppositions.⁵

2.1. Nature as ‘Meaningless Complex of Facts’

According to Whitehead, it is not so much the explicit as the implicit presuppositions that most fundamentally determine the conceptual framework of an epoch.⁶ For him, one of, not to say the most fundamental and momentous, though in some areas nonetheless very useful of all the implicit presuppositions of modern philosophy and science, characterized by the bifurcation, lies in the endeavour to describe reality on the basis of substance and quality, subject and predicate, particular and universal:

All modern philosophy [and science, I.S.] hinges round the difficulty of describing the world in terms of subject and predicate, substance and quality, particular and universal. [...] We find ourselves in a buzzing world, amid a democracy of fellow creatures; whereas, under some disguise or other, orthodox philosophy can only introduce us to solitary substances [...]. (Whitehead [1929] 1978, 49f.)

Whitehead locates the systematic roots of thinking in the mode of substance and attribute in the hypostatization and illegitimate universalization of the particular and contingent subject–predicate form of the propositional sentence of Western languages. The resulting equation of grammatical–logical and ontological structure leads to conceiving the logical difference between subject and predicate as a fundamental ontological difference between subject and object, thing and property, particular and universal.

In general, Whitehead’s critique of substance metaphysics is directed less against Aristotle himself, “the apostle of ‘substance and attribute’” (Whitehead [1929] 1978, p. 209), than against the reception and careless adoption of the idea of substances in modern philosophy and science, precisely the notion of substances as self-identical material.⁷ Historically, Whitehead sees the bifurcation sealed with the triumph of Newtonian physics, within which the mechanistic-materialist understanding of matter was universalized and seen as an adequate description of nature in its entirety. In this way, scientific materialism became the guiding principle and implicit assumption of the modern conception of nature at large:

One such assumption underlies the whole philosophy of nature during the modern period. It is embodied in the conception which is supposed to express the most concrete aspect of nature. [...] The answer is couched in terms of stuff, or matter, or material [...] which has the property of simple location in space and time [...]. [M]aterial can be said to be *here* in space and *here* in time [...] in a perfectly definite sense which does not require for its explanation any reference to other regions of space-time. (Whitehead [1925] 1948, p. 50)

The misconception of matter as “simply-located” (Whitehead [1925] 1948, p. 49) stems once again from the premise of the substance–quality model criticized by Whitehead as an ill-considered and false abstraction. Following the doctrine of the simple location and the associated idea of an absolute space and an absolute time, matter is merely characterized by being at a certain time (now) at a certain position in space (here), thus existing independently. For these accounts, therefore, only the *external* relations between the matter–particles are relevant, which are to be understood as purely external insofar as the matter–particles mean nothing to each other, are irrelevant for each other. The assumption of the simple location thus implies a primal disconnectedness of the pieces of matter—which, by the way, has been ruled out within physics itself since the general theory of relativity—and thereby, according to Whitehead, abstracts from the complex and manifold interconnectedness of all entities. As a result, in scientific materialism, nature in general appears as a “meaningless complex of facts” (Whitehead [1938] 1968, p. 132).

Whitehead’s rejection of mechanistic materialism is not only due to the immanent development of the physics of his time, which, from thermodynamics to the theory of relativity and quantum physics, limited the validity of the materialistic view even within physics itself. Rather problematic for him was the interpretation of Newton’s understanding of matter, meaning the universalization of the materialistic conception of nature or the mathematical approach, which was carried out within physics as part of its triumphal procession and its transmission to (de facto) all other regions of experience. From a philosophical point of view, however, this universalization is indefensible, since its experiential basis in Newtonian physics is so limited that it cannot claim validity outside its limited scope. As a result, Newton’s matter particles are not taken as what they are, namely the result of an abstraction, but as the most concrete components of nature as such, as concrete reality. Whitehead therefore tirelessly emphasizes that the materialistic understanding of nature is an abstraction that can only be applied to a certain segment, that is, to the solid bodies or inanimate nature in the Newtonian sense of the term. This error of mistaking an abstraction for concrete experience, of confusing (the result) of an abstraction with reality itself is what Whitehead calls the “Fallacy of Misplaced Concreteness” (Whitehead [1925] 1948, p. 52). This logical fallacy poses a far-reaching and highly consequential problem because it excludes essential realms of experience from the metaphysical context by “explaining [them] away” (Whitehead [1929] 1978, pp. 17, 145). For everything that does

not fall within the scope of mathematical explanation and cannot be grasped in mechanistic terms is seen as located in the (human) subject alone, and thus denied 'reality' and, consequently, value. This way, the differentiation between primary and secondary qualities, mind and matter, nature and culture, subject and object, human and non-human is constantly re-established. Whitehead's 'protest' against the bifurcation of nature is thus motivated by the fact that experience is conceptualized inadequately by the theories of bifurcation, excluding essential fields of experience; and, on the other hand, ethically and politically, since scientific materialism with its idea of 'mere', worthless matter guides the mentality and culture of modernity in general reaching far beyond the realm of science. Thus, because Newtonian physics abstracted from sensations and qualities qua its field of research, since these eluded mathematization and could not be described in mechanistic terms, the illicit generalization of materialism resulted in a fundamental exclusion of qualities from the realm of a 'first nature' in general. For if an abstractum like matter is mistaken for concrete reality as such, differentiating everything that is perceptible in nature as secondary from its primary qualities and locating these secondary qualities exclusively in the (human) subject cannot be avoided. This ultimately cements the dualism between mind and matter, body and mind, nature and culture. In the course of the universalization of modern physics, qualities were suddenly excluded from the realm of nature by definition, instead of simply not belonging to the current field of research with respect to their application. With the separation of the secondary from the primary qualities, nature is reduced to dead, passive matter, to raw material; it appears as "dull affair, soundless, scentless, colourless; merely the hurrying of material, endlessly, meaninglessly" (Whitehead [1925] 1948, p. 56). Within such a conception, nature is not only conceived as the 'completely other', but additionally deprived of its qualities and values *for its own sake*—in Whitehead's words. This legitimizes any form of exploitation. Whitehead therefore called for a more responsible engagement with nature as early as 1925, condemning "the habit of ignoring the intrinsic worth of the environment" (Whitehead [1925] 1948, p. 196). His theory of bifurcation thus additionally provides a reasonable explanation for today's ecological crisis. However, his advocacy for a different understanding of and relationship to nature cannot be tied to classical conservation arguments, insofar as within the latter, in order to preserve nature, the distinction between nature and culture must be presupposed, and the division between the two must be maintained. A "political ecology" (Bruno Latour), also in a Whiteheadian sense, has to be something other than a mere protection of nature, a discourse that usually only results in a reification of nature. Whitehead's theoretical efforts can therefore be traced to an interest or concern that is foremost a practical one. They can be read as a "theoretical basis for a different kind of practice" (Holzhey 1990, p. 18, my translation). According to Whitehead, the bifurcation of nature poses a catastrophe in the modern age in terms of its practical effects on life, its 'worldly consequences'.

2.2. Subjectivity versus Nature

One of the most decisive systematic–historical reasons for the inconsistency within the concept of nature and the concomitant exclusion of subjectivity, experience, and history from nature is, according to Whitehead, the abstract, binary distinction between primary and secondary qualities of the 17th century physical notion of matter based on the substance–quality scheme. Quantitative, measurable properties, such as extension, number, size, shape, weight, and movement, are for Galileo via Descartes through to Locke real, i.e., primary qualities of the thing itself. They are conceived as inherent to things as well as independent of perception. In contrast, secondary qualities, such as colors, scents, sound, taste, as well as inner states, feelings, and sensations, are understood to be located in subjective perception, in the mind, and are considered to be dependent on the primary qualities. They only *appear* to the subject to be real qualities of the objects themselves. In modernity, then, the subject—which, by the way, theoretically as well as practically, cannot be justifiably defined as naturally human—has to endow the 'dull nature' with qualities and values, with meaning. These "psychic additions" (Whitehead 1920, p. 29, 42f.), as

Whitehead also calls them, are, in contrast to the primary qualities, not describable in the language of mathematical physics, i.e., not quantifiable and therefore do not possess any ('objective') 'reality'. Consequently, they are of no use for science, and the sensuously perceived nature becomes a ('subjective') 'dream'. Meanwhile, the nature of the sciences becomes a 'hypothesis' since it can never become an object of perception as such, given that the primary qualities can only be experienced in a mediated way, for example in experiments. In the course of separating the secondary from the primary qualities, the 'realm of the objective', the 'realm of the hard facts' is only complemented by the 'realm of the subjective'; for itself, according to a frequently used formulation in Whitehead, nature is conceived as completely devoid of subjectivity, i.e., values, feelings, and intentions. Against this background, Whitehead can then also suggest, in an ironically exaggerated way, that the Romantic poets are completely wrong in praising the rose for its scent or the nightingale for its song.⁸

According to Whitehead, modern philosophies of nature, as well as theories of experience and the subject, rest on these implicit premises of a bifurcated nature. As described, the distinction of two kinds of qualities leads to the assumption that there are two regions of experience and thus two kinds of objects of experience, so that it always has to be decided whether a quality is inherent to the things themselves or is to be located in the subject only—the bifurcation of nature occurs. Consequently, Whitehead's radical reformulation of the concept of nature (and thereby also subjectivity) takes place within the scope of this observation: for in the same way that nature, with the differentiation of the 'two natures', is conceived as being located outside the subject, vice versa, subjectivity is no longer a part of nature, but is, so to speak, in opposition to it, for it is considered external to nature and entirely 'other'. Thus, the separation of primary and secondary qualities is accompanied by the exclusion of subjectivity and therefore of experience and history from the realm of the 'material nature' altogether. From this perspective, then, the body-mind dualism that characterizes modern philosophy is revealed as an expression of the bifurcation of nature, of the division of primary and secondary qualities, which also means of the exclusion of subjectivity from nature. Whitehead's maxim against this exclusion, on the other hand, is: "All we know of nature is in the same boat, to sink or swim together." (Whitehead 1920, p. 148). It is therefore inadmissible to be interested in the red glow of the sunset alone, like phenomenology, or to focus exclusively on the mechanical movements of molecules, like physics: "[...] everything perceived is in nature. We may not pick and choose. For us the red glow of the sunset should be as much part of nature as are the molecules and electric waves by which men of science would explain the phenomenon." (Whitehead 1920, p. 29). It is therefore for philosophy, if it doesn't want to be useless, not to exclude or 'explain away' anything, but to place the different realms of experience in relation to one another, without reducing them to one another: "It is for natural philosophy to analyse how these various elements of nature are connected." (Whitehead 1920, p. 29).

3. Subjectivity as a Fundamental Feature of the Whole of Reality

Whitehead, on the basis of his interpretation of the modern conceptual framework, derives the task of sketching a metaphysics in which nature does not bifurcate and in which there is no division of nature and mind and their respective knowledge fields of the material and the mental. Such a metaphysics requires not only a radical reconstruction of the concept of nature, but necessarily includes an equally radical reframing of subjectivity. For Whitehead assumes that it is precisely the modernist conception of subjectivity (and thereby objectivity) that has contributed decisively to the bifurcation of nature. His interpretation of modernity as a historical-discursive formation characterized by the bifurcation is therefore crucial to his radical reconstruction of the concept of nature.

Such a reformulation of the concept of nature includes for Whitehead not least the dissolution of the opposition nature/subjectivity or else nature/experience⁹: instead of excluding the subject and experience from nature and thus opening the door to bifurcation, for Whitehead *subjectivity is a fundamental feature of the whole of reality*. According to the

Philosophy of Organism, everything that exists feels; every atom and every flower feels. A statement, as Melanie Sehgal notes, “that sounds strange only against the background of a concept of experience implicitly oriented towards conscious, human perception, as it characterizes modern philosophy” (Sehgal 2016, 209f., my translation). Reality must be described as a hierarchy of consistently given, though varying, degrees of subjectivity. This is also the reason why Whitehead can state “that apart from the experiences of subjects there is nothing, nothing, nothing, bare nothingness” (Whitehead [1929] 1978, p. 167). If such a relocation of subjectivity into nature is linked to the goal of correcting the materialist–mechanistic conception of the ‘natural’ world as it derived from the bifurcation, subjectivity can also no longer be a “privilege of higher developed entities, let alone an ontological distinction of man” (Wiehl 2007, p. 30, my translation). On that note, Whitehead vehemently rejects modern anthropocentrism, which locates subjectivity outside of nature: “Pansubjectivism,” Reiner Wiehl elaborates, “thus means in Whitehead not only the implementation of the subject in nature and the natural sciences, but equally also a naturalization of subjectivity” (Wiehl 1990, p. 212, my translation). In this regard, what Bruno Latour phrased much later in the context of his Actor–Network Theory also applies to Whitehead’s theory of an immanent, all-encompassing subjectivity: “Subjectivity, corporeality, is no more a property of humans, of individuals, of intentional subjects, than being an outside reality is a property of nature” (Latour 1999, p. 23). Mental structures are a basic feature of reality and the difference between mentality and materiality is, from this perspective, merely one of degree, by no means a differentiation that is ontologically prior.¹⁰ Whitehead’s “panexperientism” (Griffin 2007) or “pansubjectivism” (Wiehl 1990) does not mean that everything senses in the same way and intensity, that the sensations of a stone are the same as those of a human being—“[i]t is obvious that a structured society may have more or less ‘life’”—, but that there are no absolute but only gradual differences within life: “[T]here is no absolute gap between ‘living’ and ‘non-living’ societies”¹¹ (Whitehead [1929] 1978, p. 102). Therewith, Whitehead insists against the bifurcation of nature that “[e]ach actuality is essentially bipolar, physical and mental” (Whitehead [1929] 1978, p. 108) and thus contradicts another extremely persistent dualism within Western philosophy: the dualism between the organic and the inorganic.¹²

3.1. Subjects as Process-Relational ‘Acts of Experience’

If the bifurcation of nature is to be overcome, there must be no “bifurcation of actualities” (Whitehead [1929] 1978, p. 289) and thus no distinction between sentient-thinking entities on the one hand and ‘merely material’ entities on the other. The assumption of entities “void of subjective experience” (Whitehead [1929] 1978, p. 167) is therefore strictly rejected by Whitehead. Thus, “all final individual actualities have the metaphysical character of occasions of experience” (Whitehead [1933] 1967, p. 221); they must be understood as sensing, i.e., “experiencing subject[s]” (Whitehead [1929] 1978, p. 16) in a non-anthropological (and thereby also non-anthropocentric) sense. With this, subjectivity has been metaphysically generalized as well as pluralized: subjectivity is everywhere present in nature, no longer bound to consciousness and no longer the sole predicate of man.

Whitehead calls the smallest “individual unity of experience” (Whitehead [1929] 1978, p. 129) an ‘actual entity’, ‘actual occasion’, or ‘organism’. They are “drops of experience, complex and interdependent” (Whitehead [1929] 1978, p. 18), detached from their anthropological and consciousness–philosophical context. Whitehead describes them as dynamic–creative processes of ‘growing together’ (‘concrescence of prehensions’), as processes of synthesis and integration through which the drops of experience ‘feel’ or ‘grasp’ the others (‘prehension’¹³) and include the others relevant to them (‘positive prehension’). They thereby constitute each other as well as themselves. That is precisely what Haraway says, even using Whitehead’s term ‘prehension’: “Through their reaching into each other, through their ‘prehensions’ or graspings, beings constitute each other and themselves.” (Haraway 2003, p. 6) The world thus becomes a world of manifold, perspectival, mutually

grasping events; it brims with touching, intersecting, and interlinking subjects. Ontologically, it is then no longer the independently existing that is the primarily existing, but the relational processes of becoming of the drops of experience. Actual entities thus continuously emerge from and merge into each other through their “entanglements” and “intra-actions,” as Karen Barad would say: “Existence is not an individual affair. Individuals do not preexist their interactions; rather, individuals emerge through and as part of their entangled intra-relating” (Barad 2007, p. ix). Or, again with Haraway: “To be one is always *to become with many*” (Haraway 2008, p. 4).

Once constituted as a new entity through the process of interweaving relations—in Haraway’s words, “becoming-with,” “co-becoming,” or “co-constitution”—the occasions of experience become the object, the “stubborn fact” for the actual entities that follow them, i.e., they become “objectively immortal” (Whitehead [1929] 1978, p. xiv). Every subject, therefore, as the object that it has become, enters into the subjects that follow it and emerges from them, with which they coincide in the new thing they have become. Actual entities, then, stand constantly in tension between subjectivity and objectivity, and subject and object become relative as well as functional categories in the process of the relations they enter into and from which they emerge: “There are no pre-constituted subjects and objects” (Haraway 2003, p. 6). The categories of subject and object are therefore applicable and valid in their conceptual abstraction only and exclusively after the process of the many entering into a new entity and in relation to other actual entities. Accordingly, Whitehead does not present an overall critique of the differentiation of subject and object, or even of body and mind: rather than dissolving the difference, he reinterprets it, by dropping it as a metaphysical premise.

That which an actual entity in the nexus of relations that constitute it is *for itself* as an “individual unity of experience” (Whitehead [1929] 1978, p. 129, my emphasis)—i.e., as a ‘subject’—is what Whitehead calls its “private side” or its “psychic pole”; but since it is at the same time and always also for others, it also has an objective “public side” or a “physical pole.” In terms of its privacy, an actual entity is a ‘subject’, a psychic structure that creates itself from the data given to it by integrating others. One and the same actual entity, however, in terms of its physical, public aspect, is also an ‘object’, for “it arises from the publicity which it finds, and it adds itself to the publicity which it transmits” (Whitehead [1929] 1978, p. 289). Each actual entity, thus, also poses the question of order anew. By adding itself, it can change the entire order: “Reality is an active verb” or else “the world is a knot in motion” (Haraway 2003, p. 6). An actual entity is hence, on the one hand, dependent on its actual world, but at the same time it always goes beyond it, transcending solidified structures and constituting itself in its process of becoming. Therefore, there is no total dependence of becoming on structure. Accordingly, drops of experience oscillate between finality and causality, between self-causation and effect-causation; both determined and free, they enjoy a certain level of self-determination and agency. How an actual entity evaluates the previous actual events, the ‘data’ available to it, whether something is of interest for it, concerns it, whether it integrates or rejects what it feels and how it unifies it, is up to its—conscious or unconscious—‘decision’. “It [the subjective form, I.S.] may, or may not, involve consciousness [...];” but, in any case, “[it] will involve aversion, or adversion, that is to say, decision” (Whitehead [1929] 1978, p. 261). Thus, another concept, predominantly limited to the realm of the human, has been speculatively extended: agency is no longer linked to consciousness and therefore no longer an ontological distinction of man. Whitehead consequently speaks of “[t]he ultimate freedom of things, lying beyond all determinations” (Whitehead [1929] 1978, p. 47). Every event is thus not only an acting, active process, but equally a creative one,¹⁴ and every event therefore also has a unique “subjective form” and a “subjective aim” in which its individuality is expressed. In its process of synthesis or integration, every act of experience always strives for “satisfaction,” “self-fulfillment,” or “self-enjoyment” and thus fundamentally contains the moment of valuation in its decision. Actual entities therefore also have a value for themselves, whereby

intrinsic value is extended into nature. Consequently, nature can no longer be conceived as ‘meaningless complex of facts’.¹⁵

As feeling-grasping, as relational ‘act of experience’, every actual entity, every subject is to be understood as a creative act or event. They are therefore necessarily processual. According to Whitehead’s notion of processuality, they must be conceived as temporary, ephemeral events that essentially imply emergence and perishing—“no subject experiences twice” (Whitehead [1929] 1978, p. 29). A basic feature of actual entities is therefore their ‘atomistic’ structure. To consider time ‘atomistic’ or ‘epochal’ means to conceive of time as consisting of distinct wholes, which are extended in time, but which themselves can no longer be divided into temporal sections (Cf. Sölch 2014, p. 287). Each actual entity must be thought of as an undivided duration, as an indivisible process of becoming, which only becomes and perishes, but does not change: “Actual entities perish, but do not change; they are what they are” (Whitehead [1929] 1978, p. 35). In this context—the relation between continuity and discontinuity—, Whitehead mentions Zeno’s arrow paradox: since Zeno assumes that every becoming is based on something *that* becomes, and that becoming is divisible into discrete periods of time, he presumes the substance–attribute model. In Whitehead’s conceptual universe, therefore, a distinction is also made between ‘change’ and ‘becoming’. For him, there can only be “a becoming of continuity, but no continuity of becoming,” “[i]n other words, extensiveness becomes, but ‘becoming’ is not itself extensive” (Whitehead [1929] 1978, p. 35). Whitehead’s conception thus implies that the existence of an actual entity is constituted by its indivisible, atomistic becoming, so that when an actual entity has fully become, it ceases to exist—“[i]n the organic philosophy an actual entity has ‘perished’ when it is complete” (Whitehead [1929] 1978, 81f.). The way an actual entity becomes therefore also determines what it is:

[...] *how* an actual entity becomes constitutes *what* that actual entity is; so that the two descriptions of an actual entity are not independent. Its ‘being’ is constituted by its ‘becoming’. This is the ‘principle of process’. (Whitehead [1929] 1978, p. 23)

A subject, therefore, cannot persist as a self-identical entity that merely experiences qualitative changes without itself becoming something else—“[i]t is fundamental to the metaphysical doctrine of the philosophy of organism, that the notion of an actual entity as the unchanging subject of change is completely abandoned” (Whitehead [1929] 1978, p. 29). An actual occasion neither reoccurs nor does it change; it emerges and passes away, ceases to exist, and is replaced by other actual occasions.¹⁶ Actual entities are thus temporary events, ephemeral truths, and essentially historical. Once the bifurcation of nature has been overcome theoretically, historicity can also no longer be considered nature’s other.

Properly considered, therefore, actual occasions cannot be understood as the smallest elements composing the world. I therefore agree with Melanie Sehgal’s assessment that the quasi-physical view of actual entities as the smallest pieces constituting everything else overlooks the speculative dimension of the term. For Sehgal, in pragmatist terms, “the crucial question is not *what* actual entities are, but what the concept enables to think, *where it might lead*” (Sehgal 2016, p. 375, my translation). And, ‘for the hope for livable worlds’, it might lead to a dissolution of the dualism between nature and culture and its related dualisms.

3.2. ‘Societies’ or of People, Stones and Electrons

As processes of becoming, actual entities are not directly observable and therefore cannot be considered objects of experience. That which is actually perceived, on the other hand, is what Whitehead calls ‘societies’. Societies are a more or less complex assemblage of events, a nexus of actual entities that, in a complex process of transformation, take up (‘prehend’) patterns and properties of past entities and repeat them in such a way that enduring structures, solid, material things like people, plants, stones, electrons, etc., emerge. Societies are therefore characterized by a relatively high level of stability, which is achieved through repetition. The concept of repetition therefore is fundamental to the Philosophy

of Organism. More importantly, however, is that continuity cannot simply be taken as a given but must be understood as the result of a process of unification and realization. The repetition of previous structures therefore implies the possibility of failure as well as the possibility of completely different behaviors, i.e., also the emergence of the new. Thus, in addition to its critical dimension of avoiding the incoherent aspects associated with the bifurcation of nature, the concept of the actual entity allows to theorize change, the emergence of the new, but also the possibility of failure of continuities. It is therefore only consistent that for Whitehead the laws of nature merely present the “widespread habits of nature” (Whitehead [1938] 1968, p. 154) and are by no means necessary: “They exist as average, regulative conditions because the majority of actualities are swaying each other to modes of interconnection exemplifying those laws” (Whitehead [1938] 1968, p. 155).

Spatiotemporally extended, meaning observable, are only the more or less complex societies of momentary, simultaneous events. The identity of consciousness shows a similar pattern: it can emerge as a “personal society” (Whitehead [1933] 1967, p. 206) in the continuity of the moments of experience, but it is by no means the ontologically prior. Therefore, it is not the processes themselves that are experienced, but rather it is from them that one experiences: what is observable is not the becoming of the actual entities themselves, but only the realized structures, the relational assemblages, which have been established by such processes. The more complex the societies of the psycho-physical events are, the higher is also the level of mentality of the prevailing actual entities, which also means their ability to have richer and more intense experiences, as well as their capacity for self-determination. Thus, the feelings of the actual entities that constitute the mental structures of a mouse are much more complex and sophisticated than those that constitute any cell of its body.

3.3. Atomistic Subjectivity

If the world is to be conceived of as consisting of processes or events rather than substances, or, according to Haraway, as a “knot in motion” or “active verb” (Haraway 2003, p. 6), the subject cannot be presupposed as a fixed and self-identical entity, as if it were isolated, independent, and self-sufficient, and that in the course of time (understood as being serial) obtains further accidental qualifications. Instead, subjects must be constituted atomistically, therefore disappearing after their process of realization, and thus can ontologically neither precede nor succeed their feelings. Therefore, they must be “both process and outcome” (Whitehead [1929] 1978, p. 84, my emphasis), or in Whitehead’s terms, both “subject” and “superject” of their experiences:¹⁷

An actual entity is at once the subject experiencing and the superject of its experiences. It is subject-superject, and neither half of this description can for a moment be lost sight of. The term ‘subject’ will be mostly employed when the actual entity is considered in respect to its own real internal constitution. However, ‘subject’ is always to be construed as an abbreviation of ‘subject-superject’. (Whitehead [1929] 1978, p. 29)

Conceptually, then, a distinction can be made between the becoming, initial subjectivity, the ‘subject’, and the having become, final subjectivity, the ‘superject’. But in fact, they are never separate. The subject, then, according to Whitehead, is nothing but the process and outcome of its own relatings, its relational ‘process of becoming’—“beings do not preexist their relatings” (Haraway 2003, p. 6). For Whitehead, the world conceived as stable is not reality; the only real things are the interlocking and diverging processual subjects, which in their realization presuppose structures, but always transcend them as well. Nature as a whole can be conceived of as a process-relational structure of continuous and permanently changing, creative, manifold subjectivity. This is, again, why Whitehead can state “that apart from the experiences of subjects there is nothing, nothing, nothing, bare nothingness” (Whitehead [1929] 1978, p. 167).

In a systematic respect, Whitehead’s reconceptualization of subjectivity is necessary and fundamental to his project of outlining a metaphysics beyond the bifurcation of nature.

If the world is not to be described in dualistic terms, subjectivity must be a feature of all of reality and cannot be attributed to humans only. Demonstrating this is the project of Whitehead's metaphysics, which he also calls, in opposition to Kant, a "critique of pure feeling" (Whitehead [1929] 1978, p. 113). Beyond that, however, Whitehead's pluralistic notion of the subject provides arguments against anthropocentrism, the reduction of nature to passive, dead matter, and the ruthless exploitation that comes with it.

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Notes

- ¹ As a mathematician, he is known to this day for the very influential three-volume *Principia Mathematica*, co-authored with Bertrand Russell.
- ² This paper is largely based on a chapter of my book *Tausend Subjekte. Der radikal pluralistische Subjektbegriff im kritischen Posthumanismus und bei A. N. Whitehead*, published in German (Schlehaider 2021).
- ³ For Whitehead, "this antagonism between philosophy and natural science has produced unfortunate limitations of thought on both sides," namely in that "[p]hilosophy has ceased to claim its proper generality, and natural science is content with the narrow round of its methods" (Whitehead [1929] 1971, p. 49). Within the scope of Whitehead's maxim "against bifurcation of nature", overcoming the separation between the natural sciences and the humanities is therefore fundamental for him. Moreover, this division is also responsible for the inadequate conceptualization of nature in modernity.
- ⁴ Therefore, I adopt this general usage hereafter.
- ⁵ As Sehgal shows, Whitehead thereby contextualizes himself and thus rejects the myth of the possibility of an unsituated reading as well as an unsituated philosophizing: "The besetting sin of philosophers is that, being merely men, they endeavor to survey the universe from the standpoint of gods" (Whitehead [1947] 1974, p. 132). The proximity to Donna Haraway's "god trick" pretending to be able to "see [...] everything from nowhere" is evident (Haraway 1988, p. 581).
- ⁶ In the context of criticism, therefore, Whitehead's priority is to work out the implicit, unquestioned (metaphysical) presuppositions: "When you are criticising the philosophy of an epoch, do not chiefly direct your attention to those intellectual positions which its exponents feel it necessary explicitly to defend. There will be some fundamental assumptions which adherents of all the variant systems within the epoch unconsciously presuppose. Such assumptions appear so obvious that people do not know what they are assuming because no other way of putting things has ever occurred to them. With these assumptions a certain limited number of types of philosophic systems are possible, and this group of systems constitutes the philosophy of the epoch" (Whitehead [1925] 1948, 49f.). Along these lines, Whitehead's thinking repeatedly revolves around the question of the implicit presuppositions of the modern frame of thought.
- ⁷ Whitehead rejects this view utterly in his *Philosophy of Organism*, as he calls his philosophy (cf. Whitehead [1929] 1978, p. 29). According to Whitehead, reality must be conceived on the basis of our concrete experience, i.e., as a living one, and that means one that is continually changing, indeed having agency. This is not without consequences for the concept of nature as such.
- ⁸ "Thus the bodies are perceived as with qualities which in reality do not belong to them, qualities which in fact are purely the offspring of the mind. Thus nature gets credit which should in truth be reserved for ourselves: the rose for its scent: the nightingale for his song: and the sun for his radiance. The poets are entirely mistaken. They should address their lyrics to themselves, and should turn them into odes of self-congratulation on the excellency of the human mind." (Whitehead [1925] 1948, p. 56).
- ⁹ The reconceptualization of subjectivity equally requires a reconceptualization of experience. Drawing on the findings of physiology, Whitehead identifies two modes of experience, namely "causal efficacy" and "presentational immediacy". In contrast to the clear and distinct 'presentational immediacy', perceiving in the form of 'causal efficacy' is primitive, fuzzy, and vague. According to Whitehead, the subliminal, immediate feeling or grasping of one's own and other's e/affect, of being e/affective and being e/affected, forms the much larger, and that means above all the more important and primary part of experience. While sense perception is a trait of higher evolved beings, 'causal efficacy' occurs at any level of organization: "A flower turns to the light with much greater certainty than does a human being, and a stone conforms to the conditions set by its external environment with much greater certainty than does a flower" (Whitehead [1927] 1958, p. 42). This is the reason why "the philosophy of organism attributes 'feeling' throughout the actual world" (Whitehead [1929] 1978, p. 177). Moreover, this is the reason why "the philosophy of organism aspires to construct a critique of pure feeling" (Whitehead [1929] 1978, p. 113).

- ¹⁰ In fact, recent scientific research proves that even bacteria display a rudimentary form of mentality and are therefore capable of making decisions: “[B]acteria are sensitive, communicative and decisive organisms [...] bacterial behaviour is highly flexible and involves complicated decision-making” (Devitt 2007; quoted from Shaviro 2009, p. 92). The same applies to cells, slime molds, plants, and fruit flies (cf. Shaviro 2009, 92f.). Similarly, quantum physics seems to imply that the smallest components of matter, the elementary particles, must have certain mental capacities if one wants to adequately explain their behavior (cf. Griffin 2007, p. 60; Shaviro 2009). Nevertheless, I want to emphasize, with Isabelle Stengers, the importance of the speculative aspect of Whitehead’s thinking. Stengers is indeed concerned with “distan[cing] Whitehead’s speculative philosophy from the role of being the forerunner of a new, ‘enlightened’, scientifically grounded conception of the world” (Stengers [2008] 2014, p. 44).
- ¹¹ Accordingly, as Helmut Holzhey notes, Whitehead develops “a theory of order instead of a theory of levels of consciousness” (Holzhey 1990, p. 36, my translation).
- ¹² Karan Barad also remarks: “The inanimate-animate distinction is perhaps one of the most persistent dualisms in Western philosophy and its critiques; even some of the most hard-hitting critiques of the nature-culture dichotomy leave the animate-inanimate distinction in place. It takes a radical rethinking of agency [and therefore also subjectivity, I.S.] to appreciate how lively even ‘dead matter’ can be.” (Barad 2007, p. 419).
- ¹³ Whitehead uses the neologism ‘prehensions’ to describe the processes of mutual feeling and mutual references of actual entities. He thus deliberately avoids the terms ‘apprehension’ or ‘comprehension’, which are implicitly anchored in the realm of human perception and thought: “The word perceive is, in our common usage, shot through and through with the notion of cognitive apprehension. So is the word apprehension, even with the adjective cognitive omitted. I will use the word prehension for uncognitive apprehension: by this I mean apprehension which may or may not be cognitive.” (Whitehead [1925] 1948, p. 70).
- ¹⁴ Historical development, which now, similar to subjectivity, extends to nature, means that it doesn’t follow the maxim of necessity, but that of creativity, according to Whitehead.
- ¹⁵ Thus, Whitehead’s re-evaluation of the notion of value leads to a further dismantling of a classical dualism mediated by the bifurcation of nature, namely that between (valueless) facts and (human) values.
- ¹⁶ With this conception of process, Whitehead avoids the substance–attribute scheme based on the habit of thought of a bifurcated nature and thus based on inconsistencies and contradictions. As processes, actual entities “are not describable in terms of the morphology of a ‘stuff’” (Whitehead [1929] 1978, p. 41).
- ¹⁷ For this reason, they must also be ‘self-realizing’ or ‘self-creating’. Furthermore, that is why an ‘act of experience’, as just stated, also has a ‘subjective form’ and a ‘subjective aim’.

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