

Substance and Process: Leibniz and Whitehead

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Abstract:

This essay aims to show the relevance of Leibnizian metaphysics to process philosophy in Whitehead. To that end, we will show how it is possible to construct a theory of the monads that transcends the traditional categories of substantial thought.

Keywords: Substance, Process, Monads, Leibniz, Whitehead

The purpose of this essay is to explore the following hypothesis: is it possible to think Leibniz's *Monadology* beyond a substantial view of Nature? Aiming for that, I will resort to some nuclear intuitions defended by Whitehead in *Process and Reality*. What I intend to do is not an easy task considering that Leibniz's monads are *eo ipso* substances, in the same way, that many of their properties seem to be in the antipodes of reality categorization proposed by the English philosopher. The challenge remains: to investigate if the value of a monadic vision is, or isn't, hostage of a *substantial* interpretation of the world.

It matters, in a first moment, to clarify what we understand by "substance". We use this term in our common use of language but it is only indirectly connected with the way the philosophical tradition analysed it. So, we use expressions such as "illegal substances" or "substantial reasons" that, on their own already translate very different meanings. In the first case, we are referring to objects, whereas in the second case we aim for something that is essential.

According to Howard Robinson, strictly in philosophical terms, it is possible to discover seven distinct meanings, many times articulated between them. Beyond the scholastic interest of the problem, it is interesting to note the strength of and the presence of this concept in the philosophical tradition. So, in short, substance designates: (1) the ultimate foundation of reality; (2) what is not ephemeral and dependent; (3) the subject of predication; (4) what remains beyond change; (5) types of objects; (6) stuff; (7) all enduring entities that provide unity to our time-spacial structure of the world.

The first meaning allows to identify the notion of substance as Whitehead's category of "ultimate". In this context, it is close to the notion of "ultimate reality". William James shows us the psychological meaning of this problem. "It is as if there were in the human consciousness a *sense of reality, a feeling of objective presence, a perception of what we may call 'something there'*, more deep

and more general than any of the special and particular ‘senses’ by which the current psychology supposes existent realities to be originally revealed.” (James 1987, 59).

In turn, van Inwagen claims that we are facing a crucial metaphysical concept (van Inwagen 2009, 4). In fact, denying this category endangers hurting the basic principles of rationality. In fact, if we claim that there is nothing real because everything, at the end of the day, is apparent and illusory, we are stating a self-defeating sentence as we are denying the same thing we are claiming. In fact, as Ingwagen highlights, when we claim that everything is apparent, we are, unintentionally, stating a global proposition about the world’s reality – that appearance is the world’s ultimate feature.

Certainly, it is not by chance that Whitehead puts the category “ultimate” heading his scheme of categories. It unfolds into (1) “creativity”, or the “the principle of *novelty*”, (2) “many”, or “disjunctive diversity” and (3) “one” meaning the “singularity on an entity”. These are the main categories of the philosophy of organism. When we apply the ultimate category to the different expression levels of reality, the “actual entities” emerge as key elements. “‘Actual entities’ - also termed ‘actual occasions’ - are the final real things of which the world is made up. There is no going behind actual entities to find anything more real. (...) The final facts are, all alike, actual entities; and these actual entities are drops of experience, complex and interdependent.” (Whitehead 1978, 18). Actual entities are the ultimate reality in the creative process. Similarly, the monads are the ultimate reality of everything that exists, although they have different properties from the ones presented by Whitehead. So, we can conclude that, in the theme of substance, both authors agree. As stated by Robinson, “substances are the things from which everything else is made of, or by which it is metaphysically sustained”. Or, quoting Whitehead, “The notion of ‘substance’ is transformed into that of ‘actual entity’” (Whitehead 1978, 18/19).

A second philosophical meaning to the category substance is to compare what is relatively independent and long-lasting with what is dependent and ephemeral. It seems clear to us that authors disagree on this aspect. Whitehead insists on interdependence and time dimension. In Leibniz’s case, we should analyse this situation carefully. As we will see, it is possible to distinguish in his thought two meanings concerning time; yet, the monads, with exception to God, are relatively independent. Even God, in Leibniz’s opinion, follows a set of logical principles that can’t be subtracted. The reason for the insistence in the “relatively independent” character of the monads in Leibniz is connected with the idealist vision embedded in his thought. Different parts can’t constitute the ultimate reality because if that was the case, it would be dependent on something else, and as such, it wouldn’t be the ultimate one. This is why Leibniz rejected the notion of spatiality when characterizing the monads. They are multiple in their diversity and one in their particularity – as in Whitehead – however, at the limit, they are independent and autonomous.

The third meaning of substance has to do with the relationship subject-predicate in a proposition. Probably, this is the most traditional meaning of this word, maybe because it carries the metaphysical- logical vision of Aristotle. In this Aristotelian analysis of statements, some

predicates are essential whereas others are secondary. The end of the first ones means the dissolution of subjects while in the second ones the annulment is accidental and the subject or substance remains. In one simple example, this rose is, essentially, a flower; the fact that it is red is accidental. The rose wouldn't stop being a rose if it was yellow or white or if it loses some of its petals. The substance is, in this way, a singular individual's expression as a support (*ὑποκείμενον*) for essential (*οὐσία*) or accidental properties. What makes it possible to distinguish between substance and essential predicates is that the substance can never be said to belong to a subject. For different reasons, both Leibniz and Whitehead are going to change this conceptual schema; in Leibniz's case by demonstrating that each monad not only contains *ab origine* all its predicates, as its revelation offers itself in a process that we could name as unfolding or blossom. Going back to the example of the flower, its blossom means the appearance in the flower of its characteristic parts either sepals, petals or stamens. All these attributes, necessary ones or contingent ones are potential in the flower and the blossom of the flower is the actualization of the attributes.

Although Leibniz clearly distinguishes between necessary and contingent properties, the identity of a monad potentially contains its own individual history. Each monad expresses, in its own way, all the others, which means that each substance reflects like a mirror, all nature. Without defending the idea of a unique substance, very much like Spinoza, Leibniz shows us that, in its own way, each atom of experience contains in itself all nature. In the case of Whitehead, in an attitude very similar to Russell's, the propositional structure is criticised, a point from which the traditional metaphysical distinction between substance and attributes is based. As the philosopher will say referring to Spinoza, "the philosophy of organism is closely allied to Spinoza's scheme of thought. But it differs by the abandonment of the subject-predicate forms of thought (...). The result is that the 'substance-quality' concept is avoided; and that a morphological description is replaced by description of a dynamic process." (Whitehead 1978, 7). By privileging the S-P relationship, Leibniz will consider the relational structures as being something merely ideal, that is, not real. In his correspondence with Clarke (Leibniz 1978b, 398-420), the German philosopher questions relational judgments demonstrating that if it is not possible to reduce them to the schema S-P, then that means that they are merely mental operations. When, for example, we establish a ratio or a relationship between two lines and we ask which one is bigger or smaller or which one precedes the other, it is pointless to ask which one of them is subject and predicate. "Therefore we must say that this relation (...) is indeed *out of* the subjects; but being neither a substance, nor an accident, it must be *a mere ideal thing*, the consideration of which is nevertheless useful." (Leibniz 1978b, 401).

The fourth meaning for substance aims for the notion of what endures beyond change. In this aspect, Leibniz's and Whitehead's visions are diametrically opposed. Again, the roots of this thesis are found in Aristotle. To understand change one must assume an invariant subject. That invariant subject is assumed as the "primary substance". If one wants to rethink the monadology in non-substantial terms, it is precisely at this point we should focus our attention. To what extent the metaphysical theory about the monads is hostage of a substantial conception, as a statement of

something enduring beyond all change? We are constantly experiencing change but at the same time, we assume that both us people and the objects possess something that remains changeless across time. If there were nothing permanent what meaning would it have to talk about one particular entity? When we talk about individuation we think about three different things: its relative independence from other entities; its unity that allows us to think we are contemplating one thing and not many. Yet, we need – or Leibniz thought so – something stable across time. The monads have this three properties: they are autonomous and independent even if they were created by someone else; they are one – by the way, the primeval meaning of the word monad from the Greek “monas”, one; lastly, they persist beyond time change and are, because of that, called substances. The substances qualities are types of them. What meaning would it have to consider real – and not only a metaphor – the smile Cheshire’s cat would give after leaving? What meaning would it have to claim that the bumps in a car would exist beyond the car’s existence, flying around the world waiting for a car to belong to? (Blackburn 1999, 65). In this way, Leibniz will insist on the substantial character of the monads: one, independent and subsisting beyond its attributes’ temporality.

The way we see it, the only way to overcome this substantial notion vision of monadology is to introduce the factor “time” as a constitutive element of the very own reality of the monads. Is this appropriate? The answer is a positive one if we acknowledge the fact that Leibniz admits two types of time experience. In one hand we have the physical time, relational structure, ideal that circumscribes what is real in itself. This physical time has a similar nature as the notion of space. As later Kant will state, time and space are not inherent to the thing itself, but rather forms that circumscribe our representation of the world. However, it is possible to find in Leibniz a temporal aspect that isn’t reduced to the relational sphere. In fact, as highlighted at the beginning of this essay, predicates are folded up within the monad and blossom by active power in the monad. That is why Leibniz used, in his essay on monadology, the Aristotelian notion of *entelechy* or the actualization of what is still merely potential. Beyond the most known monad predicates, the *perceptio* – perception – and *appetitus* – desire, it matters to refer that the active power is the essence of the monad. Leibniz refers to it via several notions such as entelechy, internal principle of change, and even “conatus”, as in Spinoza.

To Leibniz, at any moment the monads are passive, as continuous unfolding is part of their essence. Each state of the monad carries its past and is pregnant with the future. So, we can say the monads have an intrinsic time associated to becoming-itself of the monad as entelechy, very different from time as a chronology (external framework). So, it isn’t rushed to join Whitehead claiming that occasions or actual entities, this “drops of experience”, are not distant of monads as “atoms of experience”. If we take those atoms as instantaneous, constantly recreated, then, Whitehead’s philosophy of organisms isn’t distant from Leibniz’s metaphysical vision. In this new reading of monadology, continual change, the creative process, would be ultimate, ontological primary, whereas permanence would be simply an optical illusion. The active power of the monad

matches the notion of creativity in Whitehead. “Each monadic creature is a mode of the process of ‘feeling’ the world, of housing the world in one unit of complex feeling, in every way determinate. Such a unit is an ‘actual occasion’; it is the ultimate creature derivative from the creative process.” (Whitehead 1978, 80). It doesn’t mean, with this interpretation of Leibniz’s theory, that we intend to neglect the deep differences between both philosophies. As well highlighted by Teixeira, “The temptation of describing (the actual entities) as small atoms in Democritus’s way, only subsisting an instant, creeps into almost all readings on Whitehead’s doctrine. The constant references to atomic entities such as electrons and protons made by Whitehead, as well as the atomism epithet that Whitehead ostensibly imputes to his doctrine certainly contribute a lot to this confusion.” (Teixeira 2011, 39). In lack of a better term, Teixeira talks about “cells” driving us far away from the implicit materialism in the notion of an atom. However, there is a second reason leading us to not mistaking Leibniz’s and Whitehead’s systems and it has to do with the last meaning of the substance that we will analyse.

As we have seen, in philosophical terms, the substance is, many times, thought as “stuff” or kind of objects. The root of this identification is Cartesian. Sometimes we forget how Descartes was key in the history of modern thinking by considering substance as stuff, as kind of objects more than things or individuals. In a certain way, Leibniz’s thinking seems an Aristotelic backward step, if I can put it like this, by insisting on the problem of individuation. The context is well known. A famous example: no matter how many metamorphoses the wax goes through it is still the same wax. That is why Descartes tells us about two substances, getting close to Spinoza’s monism. Leibniz insists in the monads’ plurality, but they are, at the limit, mental. And this will be Whitehead’s explicit critic to Leibniz. “His monads are best conceived as generalizations of contemporary notions of mentality. The contemporary notions of physical bodies only enter into his philosophy subordinately and derivatively. The philosophy of organisms endeavours to hold the balance more evenly” (Whitehead 1978, 19).

In fact, in spite Leibniz’s distinction between perception and apperception, the way he puts monads into perspective isn’t strange to the vision we have nowadays of consciousness. As highlighted by Martine de Gaudemar: “One monad, from the Greek monas, unity, is a unit in itself, possible to analyse in an active principle called (...) entelechy, and a passive principle, mass or *first matter*, that is, an active principle and a passive one. The monad contains a kind of perception and appetite. It is a simple substance, without parts, with actions of its own, that continually changes its relationships. Each monad is a living mirror, representative of the universe, according to its own point of view.” (Gaudemar 2001, 39). The way Leibniz presents the monad’s functioning extraordinarily resembles the functioning of consciousness.

The model Leibniz draws on to explain how such diversity and unity is possible is one quite close to us - our own consciousness. As I look out on this coffee shop, it is undeniable that I have a multiplicity of perceptions. I see tables and chairs, the chequered tiles on the floor, a handful of people, cars passing outside the window. In fact, one could say that this one view contains an infinite

multiplicity of perceptions, a fact illustrated by the simple question, how many colours am I now seeing? One wooden chair contains an infinite variety of shades of brown. I could never fully describe what I see in any one of these people. I probably could not even fully describe the shades of colour on one strand of their hair. The infinite complexity of these perceptions is rooted in the infinite divisibility of any continuum - any aspect I pick out can be divided and divided into finer and finer detail. At the same time, it is just as undeniable that my perception has a kind of unity. My very ability to see *a* chair shows that I take all those shades of brown together as one. On a broader level, the whole view of the coffee shop seems to be distinctly *mine*. All these perceptions appear as a multiplicity in my one consciousness. This unity applies not only at any given moment but also over time. The multiplicity of qualities in my consciousness can change radically in a moment. I can simply turn my head, or close my eyes and picture myself lying in the sun on the beach, seeing as much detail as my imagination allows. Yet in spite of the radical shift from coffee shop to beach, it still seems to be my consciousness. These perceptions have a fundamental unity simply because they all are *mine*. (Perkins 2007, 81-82).

Through this example, the points of alignment between the intrinsic structure of each monad and the consciousness are demonstrated. The monad, as does the consciousness, presumably has a point of view, a particular perception. It is just that this last one is not unique. It is part of the consciousness's power to change points of view and, in that way, capture infinite (ultimately) diversity in its object (in this case the room of the mentioned coffee shop). Yet, in spite being possible of existing multiple perspectives, the monad, such as the consciousness, guarantees the unity in perception. By observing the multiple chromatic shades of a chair I don't transform it into multiple chairs but sum the observed diversity in one perceptive unity. In turn, the monad, as consciousness, subscribes in the subject's fundamental unit, allowing apperception, in this case, that such unity in diversity is mine and not of any other monad or consciousness. Finally, it is referred the monad's capacity of changing the nature of representations, for example, the passage from a mental representation of the coffee shop room to the representation of myself lying in the sand under the sun. The change in the mental representation is radical and, yet, the monad or consciousness is the same. This monad's capacity of changing perceptions, of performing the passage from one representation to the other is named desire (*appetitus*). If we take as plausible the identity between monad and consciousness – even if it is simply as thinking tool – the nonobservable and private character of consciousness finds in Leibniz's metaphorical words a privileged moment. I refer to the strange claim made by the German philosopher according to whom the monad has no windows from which to enter or leave (Leibniz 1978a, 607). It is clear that the monad is a particular sphere of representations, a representative atom of the world and, as such, perception is a key feature. With this metaphor, Leibniz wants to highlight that each monad is indivisible, non-observable from the exterior, as consciousness is. Whitehead's critique of the exclusively mental character of the monads isn't indifferent to the vision of the monads as drops of experience in which the windows are, on the contrary, always open.

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