

Contributi/6

Leibniz's Influence on Bergson's Notions of Image, Matter, and Memory Bergson's «Updated Monadology»*

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In this paper I study Leibniz's influence on Bergson's notions of image, matter, memory, and related ones, as the French philosopher develop them in his book *Matter and Memory* (1896). First, I analyse the universe of matter-images Bergson draws in chapter 1. I call this universe an «updated monadology» and show the role photography plays in its configuration. Second, I expose the common assumptions and differences between Leibniz's and Bergson's notions of perception, perspective, and action. Third, I study Leibniz's and Bergson's use of the term «virtual». For both thinkers, the word refers to what is possible, although they interpret 'possible' differently, as pre-existence and as something radically new respectively. Fourth, I analyse the role memory and the unconscious play in Leibniz's and Bergson's philosophies, presenting the spiritual as their common foundation for continuity and duration. Finally, I conclude that both thinkers appeal to a «metaphysics of continuity, duration, and tendency» where time is crucial for the distinction between matter and spirit, and body and mind. However, radical differences persist in their respective metaphysical assumptions concerning the notions of novelty, freedom, and time.

Introduction

The presence of the German philosopher G. W. Leibniz's (1646-1716) in the French philosopher Henri Bergson's (1859-1941) work is important, being one of the most cited authors in the latter's books and published courses¹.

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¹ Despite this, extensive systematic studies of the relationship between these philosophers have not been undertaken. As Matthias Vollet states: «On Bergson and Leibniz in relation to other problems [than the tendency and possibility] there is only scant literature», *El papel de Leibniz para la metafísica de Henri Bergson. Las nociones de 'posible' y 'tendencia'*, in M. Sánchez and S. Roderó (eds.), *Leibniz en la filosofía y la ciencia modernas*, Granada 2010, p. 193. On Leibniz's influence on 19th century French philosophers, which in turn influenced Bergson, see J. Dunham, *Leibniz et la philosophie française aux XIXe siècle*, in M. Laerke, Ch. Leduc, and D. Rabouin (dir.), *Leibniz. Lectures et commentaires*, Paris 2017, p. 335.

Bergson takes crucial elements from Leibniz, having in common with him what we may call a «metaphysics of continuity, duration, and tendency», where time is the key to distinguish between matter and spirit, or body and mind. From this perspective, matter is regarded as «instantaneous spirit».

In particular, we find Leibniz's influence in the metaphysics of matter-images Bergson proposes in his book *Matter and Memory* (1896). Here images are the ultimate elements of the universe, and living beings as images bring forth perspective and perception. We also find an intimate connection between perception and action with memory as a mediator, emphasising possibilities and virtualities. All these elements are Leibnizian in spirit. But Bergson also takes distance from Leibniz, especially concerning the problem of determinism. To escape necessity, Bergson introduces the creative dimension of life, its indeterminism, and the open nature of becoming; in synthesis, the *durée* (duration). In the following sections, I will study these influences and confluences, these similitudes and differences. First, I present the universe of matter-images drawn by Bergson in *Matter and Memory*, chapter 1, his «updated monadology», showing the crucial role photography plays in this «updating». Second, I expose the common assumptions and the differences between Leibniz's and Bergson's notions of perception, perspective, and action. Third, I study Leibniz's and Bergson's common use of the term «virtual» as referring to what is possible, but also their different understanding of it concerning the problem of determinism. Fourth, I analyse the role of memory and the unconscious in the philosophy of both thinkers. Finally, I establish the spiritual as the foundation of continuity and duration in both thinkers' philosophies.

1. Monads, Images, and Photography: An «Updated Monadology»

Leibniz presents his monadology in his end-of-life writings *Monadology* and *Principles of Grace and Nature* (1714). In them he describes what he calls «monads» or simple substances, the ultimate constituents of reality. «[...] these monads are the true atoms of nature and, in a word, the elements of things»². Matter itself is nothing but an infinite set of monads; which are completely self-contained, with no causal interaction between them. «Monads have no windows through which anything could enter them or depart from them»³. However, they have within them a reference to all the other monads composing the universe

² *Monadology*, § 3: GP, VI, 607. Cited from L. Strickland, *Leibniz's Monadology. A New Translation and Guide*, Edinburgh 2014, p. 14. G. W. Leibniz, *Die philosophischen Schriften*, 7 vols., ed. C. I. Gerhardt, New York 1978 [GP]. About Leibniz's monadology see E. Pasini, *La monadologie de Leibniz*, Paris 2005; J. A. Nicolás et al. (eds.), *La Monadología de Leibniz a debate*, Granada 2016; N. Rescher, *G. W. Leibniz's Monadology. An Edition for Students*, London 1991; A. Saville, *Leibniz and the Monadology*, New York 2000; D. Rutherford, «Metaphysics: The Late Period», in N. Jolley (ed.), *The Cambridge Companion to Leibniz*, Cambridge 1995, p. 67.

³ *Monadology*, § 7: GP, VI, 607. Cited from L. Strickland, *Leibniz's Monadology*, p. 15.

and so to the universe as a whole, representing it or expressing it from their particular point of view. They are what Leibniz calls «mirrors of the universe»: «it follows that each monad is a living mirror [...] representing the universe from his own point of view, and is as well ordered as the universe itself»⁴. Moreover, these monads are not passive but active, endowed with spontaneity or intrinsic activity, which Leibniz calls perception and appetite: «The passing state, which encompasses and represents a plurality within the unity (or simple substance) is nothing other than what is called *perception*»⁵. «The action of the internal principle which brings about the change or passage from one perception to another may be called *appetition*»⁶. That monads perceive does not imply that they are conscious in the sense of realising something. Awareness in this sense is a particular kind of perception that Leibniz calls «apperception»⁷.

The above description corresponds to what Leibniz considers the fundamental level of reality, the metaphysical level. Monads are thus the basic constituents of the universe from a metaphysical point of view. The physical level, i.e. the level of efficient causality and of things we perceive with our senses, the material level, is a mechanical realm of actions and reactions regulated by natural laws. However, this mechanical world is found on the «actions» of monads, that is, their mutual relations of perception⁸.

Following Leibniz's metaphysical description, it would not be excessive to understand monads as «images of the universe», as long as we understand them not as mere copies or passive reflections of an external reality but as representations that at the same time constitute what is represented⁹. Bergson relates monads with images. In his course *Histoire de l'idée de temps* (18th lesson, May 1903), he «updates» Leibnizian monadology using a relatively recent technological development, photography.

[...] what did Leibniz perceive? What he perceived were the monads. [...] What should we understand by this? To say that the universe as a whole is composed of monads is something that requires explanation, because the word composition here

⁴ *Principles of Nature and Grace*, 3: Robinet I, § 31. Cited from L. Strickland, *Leibniz's Monadology*, p. 271. G. W. Leibniz, *Principes de la nature et de la grâce fondés en raison. Principes de la philosophie ou Monadologie*, publié intégralement d'après les manuscrits d'Hanovre, Vienne et Paris et présentés d'après des lettres inédites par A. Robinet, Paris 1986 [Robinet I].

⁵ Cited from L. Strickland, *Leibniz's Monadology*, p. 16. *Monadology*, § 14: *GP*, VI, 608-9

⁶ *Monadology*, § 15: *GP*, VI, 609. Cited from L. Strickland, *Leibniz's Monadology*, p. 16.

⁷ *Monadology*, § 14: *GP*, VI, 609.

⁸ «The created thing is said to act outwardly insofar as it has perfection, and to be acted upon by another insofar as it is imperfect. Thus action is attributed to the monad insofar as it has distinct perceptions and passion insofar as it has confused perceptions» (*Monadology*, §49: *GP*, VI, 615), cited from L. Strickland, *Leibniz's Monadology*, p. 24. For the relations between physics and metaphysics see M. Gueroult, *Dynamique et métaphysique*, Paris 1967.

⁹ On Leibniz's notion of representation and the related problem of the ontological status of bodies and phenomena, see: P. Hoffman, *The Being of Leibnizian Phenomena*, «Studia Leibnitiana», 28/1, 1996, pp. 108-118; D. Rutherford, *Phenomenalism and the Reality of Body in Leibniz's Later Philosophy*, «Studia Leibnitiana», 22/1, 1990, pp. 11-28; and M. Levin, *Leibniz' Concept of Point of View*, «Studia Leibnitiana», 12/2, 1980, pp. 221-228.

has a different meaning from that of ordinary language [...] Here is what it consists of: let us suppose that from any point in the universe we take a view of the whole, I mean a photographic view, a view like that which a camera would take [...] this life-size, colour, stereoscopic photograph gives me the objects as they appear from one point of view, but from one point of view only. The objects are there in the photograph, but my vision will not be able to go through them. Some objects are more or less hidden by other objects. That is to say, it is a point of view, only a perspective¹⁰.

By relating monads to photographic images, Bergson gives us a clue to identify Leibniz's influence in the first chapter of *Matter and Memory*. In it, Bergson pictures a kind of «updated monadology»: a universe of matter-images interacting with each other, where living beings open up perspective, indeterminacy, and freedom¹¹. Bergson assigns a special ontological status to images, halfway between the material and the immaterial or spiritual¹². For him, they are not mere representations or copies of the worldly things in the mind. They possess an ontological value of their own, prior to the subject-object separation. They are the condition of possibility of this very distinction, and of the subject-object unity. For Bergson, images are equivalent to matter¹³. This statement seems paradoxical when thinking of images as copies (as in Plato's myth of cave), but not when thinking of them as *simulacra* or *idols*, as in Lucretius¹⁴. Bergson says:

¹⁰ H. Bergson, *Histoire de l'idée de temps. Cours au Collège de France 1902-1903*, Paris 2016, pp. 305-6. (the translation is mine).

¹¹ See F. Worms, *Bergson ou les deux sens de la vie*, Paris 2004, p. 9.

¹² For Bergson's notion of image, see L. Lawlor, «The Concept of the Image: Phenomenology», in *The Challenge of Bergsonism. Phenomenology, Ontology, Ethics*, London 2003, pp. 1-26. This notion of image was strongly influential on French philosopher Gilles Deleuze's ontology of the film images based on movement-images and time-images. See «Thèses sur le mouvement. Premier commentaire de Bergson» (p. 9), and «L'image-mouvement et ses trois variétés. Second commentaire de Bergson» (p. 83), in G. Deleuze, *Cinéma 1. L'image-mouvement*, Paris 1983, and also «Du souvenir aux rêves. Troisième commentaire de Bergson» (p. 62) and «Pointes de présent et nappes de passé. Quatrième commentaire de Bergson» (p. 129), in G. Deleuze, *Cinéma 2. L'image-temps*, Paris 1985. See also P. Marrati, *Gilles Deleuze: Cinema and Philosophy*, Baltimore 2008. For Deleuze's interpretation of Bergson's philosophy see also G. Deleuze, *Le bergsonisme*, Paris 2014.

¹³ «The sui generis existence of these images is given in an intuition (that which common sense designates under the name of intuition of the external)», H. Bergson, «Lettre à A. Levi sans date [fin janvier 1905 ?]», in H. Bergson, *Matière et mémoire. Essai sur la relation du corps à l'esprit*, Paris 2012, pp. 459-60. For Bergson images-matter are the things in themselves not mere copies. His standpoint could be called a «phenomenological point of view». See also P.-L. Couchoud, *La métaphysique nouvelle «Matière et mémoire» de M. Bergson*, «Revue de Métaphysique et de Morale», 10/2, 1902, pp. 225-226; and M. Merleau-Ponty, *L'union de l'âme et du corps chez Malebranche, Biran et Bergson*, Paris 1997, p. 85.

¹⁴ «I will begin to explain to you a matter that has an important bearing on these questions, namely, the existence of what we term images of things. Images are sort of membranes stripped from the surfaces of objects and float this way and that through the air» (IV, 30), Lucretius, *On the Nature of Things*, tr. M. F. Smith, Indianapolis 2001, p. 101. We have to qualify this comparison, however, because in Bergson images are not different from things, they are not detached from them, they are the things themselves.

Matter, in our view, is an aggregate of “images.” And by “image” we mean a certain existence which is more than that which the idealist calls a *representation*, but less than that which the realist calls a *thing* – an existence placed halfway between the “thing” and the “representation.” This conception of matter is simply that of common sense. [...] For common sense, then, the object exists in itself, and, on the other hand, the object is, in itself, pictorial, as we perceive it: image it is, but a self-existing image¹⁵.

These matter-images are the universe’s elements, a universe which is in the first instance purely mechanical and necessary.

A first element in common with Leibnizian monadology stands out, what we may call the images’ «holistic connection»: the relation of each image to the rest of them¹⁶. Both Leibniz and Bergson emphasise the relatedness of all things, and even more the dependency of things’ identity on such relations. As Bergson says:

Does not the fiction of an isolated material object imply a kind of absurdity, since this object borrows its physical properties from the relations which it maintains with all others, and owes each of its determinations, and, consequently, its very existence, to the place which it occupies in the universe as a whole?¹⁷.

For his part, Leibniz in *Monadology*, paragraph 56, states:

Now this interconnection, or this accommodation of all created things to each other and of each to all the rest, means that each simple substance has relations which express all the others, and that consequently it is a perpetual living mirror of the universe¹⁸.

For Leibniz, the connexion and mutual ordering of monads are not arbitrary, but the product of a pre-established harmony assigning to each monad and to each event its place and time¹⁹. Bergson distances from this hypothesis,

¹⁵ H. Bergson, *Matter and Memory*, tr. N. M. Paul and W. S. Palmer, New York 1991, pp. 9-10. I have used the critical editions of Bergson’s works, but I quote from the English translations for ease of consultation. The critical editions I used are: H. Bergson, *Matière et mémoire. Essai sur la relation de corps à l’esprit* (ed. C. Riquier), Paris 2012; *Essai sur les données immédiates de la conscience* (ed. A. Bouaniche), Paris 2013; *L’évolution créatrice* (ed. A. Francois), Paris 2009; *L’énergie spirituelle* (ed. E. During, et al.), Paris 2009; and *La pensée et le mouvant* (ed. A. Bouaniche et al.), Paris 2013.

¹⁶ See J. Earman, *Perceptions and Relations in the Monadology*, «Studia Leibnitiana», vol. 9, 1977, pp. 212-30.

¹⁷ H. Bergson, *Matter and Memory*, p. 24.

¹⁸ GP, VI, 618. Quoted from L. Strickland, *Leibniz’s Monadology*, p. 25

¹⁹ For a concise exposition of pre-established harmony see G. W. Leibniz, *Système nouveau de la nature et de la communication des substances* (1695) (GP, IV, 477-487). In English I recommend G. W. Leibniz, *Leibniz’s ‘New System’ and Associated Contemporary Texts*, translated and edited by R. S. Woolhouse/R. Francks, Oxford 1997. See also M. Mugnai, *Theory of Relations and Universal Harmony*, in M. A. Antognazza (ed.), *The Oxford Handbook of Leibniz*, Oxford 2018, pp. 27-44.

considering it an arbitrary statement, leading to a necessitarianism that assimilates Leibniz's system to Spinoza's²⁰.

As [Leibniz's doctrine] evolved it became more and more analogous, not to say identical, to Spinozism. After speaking of the pre-established harmony between body and soul, God being like a watchmaker [...], a watchmaker who would have adjusted body and soul once and for all to one another²¹.

In his metaphysics of matter-images, Bergson describes a dimension of necessity and mechanical determinism, which we could relate to the physical level of mechanical causality in Leibniz's metaphysics. At this level, matter-images interact with each other through action and reaction, on all their sides, according to mechanical laws.

All these images act and react upon one another in all their elementary parts according to constant laws which I call laws of nature, and, as a perfect knowledge of these laws would probably allow us to calculate and to foresee what will happen in each of these images, the future of the images must be contained in their present and will add to them nothing new²².

In this mechanical universe, living beings bring forth a new dimension²³. They are capable of motion, and in the movement, their bodies place always at the centre; remaining fixed while changes and movements occur. In this way, the other images seem arranged around them.

Here is a system of images which I term my perception of the universe, and which may be entirely altered by a very slight change in a certain privileged image – my body. This image occupies the center; by it all the others are conditioned; at each of its movements everything changes, as though by a turn of a kaleidoscope²⁴.

For Bergson, this perspective implies the emergence of perception.

2. Perspective, Perception, and Action

Thus, living beings and their moving capacity bring forth perspective at the level of the matter-images' mechanical and indifferent interaction. The images of the universe refer now to single images, each living beings' body. This reference of multiple images to one is what Bergson identifies with perception:

²⁰ For an explanation of Leibniz's notion of freedom and its relation to Spinoza, from the point of view of Bergson, see H. Bergson, *L'évolution du problème de la liberté. Cours au Collège de France 1904-1905*, Paris 2017, in particular *Seizième leçon. Séance du 7 avril 1905*, p. 259.

²¹ H. Bergson, *Histoire des théories de la mémoire*, Paris 2018, p. 319 (my trans.).

²² H. Bergson, *Matter and Memory*, p. 17.

²³ For the relations between life and matter in Bergson, see R. Durán, *Vida y materia: Bergson y la Termodinámica clásica*, «Veritas», n° 34, 2016, pp. 75-91.

²⁴ H. Bergson, *Matter and Memory*, p. 25.

There are perceptions, that is to say, systems in which these same images seem to depend on a single one among them, around which they range themselves on different planes, so as to be wholly transformed by the slightest modification of this central image²⁵

The connection with Leibnizian monads' perspectivism is clear, and also with Leibniz's definition of perception as that state encompassing and representing a multitude in the unity²⁶. As Leibnizian monads, Bergson's images refer to all the others in an ordered and gradual way, drawing «different planes», or perspectives. And as in Leibniz, what is consciously perceived is not all that is perceived: «if we could assemble all the states of consciousness, past, present and possible, of all conscious beings, we should still only have gathered a very small part of material reality because images outrun perception on every side»²⁷. In this quotation, Bergson is very close to Leibniz and his monadic system of universal connection, but the choice of one word highlights their differences. Bergson speaks of «possibilities» instead of «future». He avoids this word because, for him, the future is open, rather than something already given. And this openness is an intrinsic feature of the universe itself, not due to our limited perceptual capacities. For this reason, the future is different from past and present. Leibniz, for his part, would not have any problem using the word «future», because he affirms that the future is given as equally as the present and the past²⁸. So, even recognising Leibniz's imprint on his thought, Bergson takes distance from him, opposing his open universe to Leibniz's deterministic one:

Leibniz said that each monad, and therefore *a fortiori* each of those monads that he calls minds, carries in it the conscious or unconscious idea of the totality of the real. I should not go so far; but I think that we perceive virtually many more things than we perceive actually, and that here, once more, the part that our body plays is that of shutting out from consciousness all that is of no practical interest to us, all that does not lend itself to our action²⁹.

Thus, not all images of the universe are consciously perceived. This incompleteness establishes an open horizon for the conscious vision, where the scope of conscious perceptions is always smaller than the scope of perceptions in general. And this is true both for Leibniz and Bergson. «Hence the immediate horizon given to our perception appears to us to be necessarily surrounded by a

²⁵ H. Bergson, *Matter and Memory*, p. 26.

²⁶ «The passing state, which encompasses and represents a plurality within the unity (or simple substance) is nothing other than what is called perception» (*Monadology*, § 14: *GP*, VI, 608), cited from L. Strickland, *Leibniz's Monadology*, p. 16. See also J. Earman, *Perceptions and Relations in the Monadology*, «*Studia Leibnitiana*», 9, 1977, pp. 212-230; D. Rutherford, *Leibniz's «Analysis of Multitude and Phenomena into Unities and Reality»*, «*Journal of the History of Philosophy*», 28, 1990, pp. 525-552.

²⁷ H. Bergson, *Matter and Memory*, p. 229.

²⁸ See M. Parmentier, *Leibniz et la perception du futur*, «*Revue de métaphysique et de morale*», 70/2, 2011, pp. 221-233.

²⁹ H. Bergson, *Mind-Energy. Lectures and Essays*, tr. H. W. Carr, Westport 1920, pp. 95-96.

wider circle, existing though unperceived, this circle itself implying yet another outside it and so on, ad infinitum»³⁰.

Bergson defines perspective from a biological or evolutionary standpoint, considering the living beings' *fitness* to the environment. He speaks of a selection of images concerning vital needs or functions³¹. For his part, Leibniz defines the perspective in terms of greater or lesser clarity. Thus, when Bergson speaks of the perception-action mechanism appealing to the metaphor of light, the Leibnizian imprint is even clearer:

Everything thus happens for us as though we reflected back to surfaces the light which emanates from them, the light which, had it passed on unopposed, would never have been revealed. The images which surround us will appear to turn toward our body the side, emphasized by the light upon it, which interests our body. They will detach from themselves that which we have arrested on its way, that which we are capable of influencing. Indifferent to each other because of the radical mechanism which binds them together, they present each to the others all their sides at once: which means that they act and react mutually by all their elements, and that none of them perceives or is perceived consciously. [...] Our representation of things would thus arise from the fact that they are thrown back and reflected by our freedom³²

The interactions between images are no longer of mere action and reaction, but of indetermination and novelty, which is characteristic of the spiritual. The living beings' bodies are therefore «centres of free action». «*All seems to take place as if, in this aggregate of images which I call the universe, nothing really new could happen except through the medium of certain particular images, the type of which is furnished me by my body*»³³. Moreover, the capacity of choice associated with indetermination will be greater as one moves up through the scale of living beings. «And, if this be so, is not the growing richness of this perception likely to symbolize the wider range of indetermination left to the choice of the living being in its conduct with regard to things?»³⁴. Physiologically, indetermination links to the greater or lesser complexity of the nervous system and to the corresponding neural pathways³⁵.

Now, the relationship between perception and action is crucial for Bergson. For him, perception and action are two moments of the same activity: «[...] my perception displays, in the midst of the image world, as would their outward reflection or shadow, the eventual or possible actions of my body»³⁶. In this way, perspective is not merely given, but dynamic; it is a product of the

³⁰ H. Bergson, *Mind-Energy*, p. 144.

³¹ See A. Robinet, *Le passage à la conception biologique : de la perception, de l'image et du souvenir chez Bergson*, «Les Études philosophiques», 15/3, 1960, pp. 375-388.

³² H. Bergson, *Matter and Memory*, pp. 36-37.

³³ H. Bergson, *Matter and Memory*, p. 18. See M. Merleau-Ponty, *L'union de l'âme et du corps chez Malebranche, Biran et Bergson*, Paris 1968, p. 85.

³⁴ H. Bergson, *Matter and Memory*, p. 31.

³⁵ H. Bergson, *Creative Evolution*, tr. A. Mitchell, New York 1911, p. 283.

³⁶ H. Bergson, *Matter and Memory*, p. 22.

body's positioning as a centre of reference and of the selective actions on the environment and other bodies.

The same needs, the same power of action, which have delimited our body in matter, will also carve out distinct bodies in the surrounding medium. Everything will happen as if we allowed to filter through us that action of external things which is real, in order to arrest and retain that which is virtual: this virtual action of things upon our body and of our body upon things is our perception itself³⁷.

Bergson constantly emphasises that perception is not something purely intellectual or contemplative but active. «Must we not think that perception, of which the progress is regulated by that of the nervous system, is also entirely directed toward action, and not toward pure knowledge?³⁸». For him, perception is eminently action; an action linked directly to the living beings' needs and interests. Perception is of what interests, of what can be acted upon: «simply indicating in the aggregate of things, that which interests my possible action upon them³⁹. And the living being's body, and its needs and interests, determine the real and possible actions upon the others and others' possible actions upon it. The ignorance of perception as action is for Bergson the common fault of realists and idealists: «So the obscurity of realism, like that of idealism, comes from the fact that, for both of them, our conscious perception and the conditions of our conscious perception are assumed to point to pure knowledge, not to action⁴⁰».

Is this criticism applicable to Leibniz? It would be insofar as he does not establish perception as equivalent to action. Monads do not act upon each other physically or causally. But Leibniz does relate perception and action in his monadology, defining action in terms of greater or lesser perfection: «The created thing is said to *act* outwardly insofar as it has perfection, and to be *acted upon* by another insofar as it is imperfect. Thus *action* is attributed to the monad insofar as it has distinct perceptions and *passion* insofar as it has confused perceptions⁴¹. Physical actions found upon monodological «actions»⁴².

Bergson's idea of perception as subtraction or selection could also have Leibnizian antecedents, as the analogy he establishes between monadic composition and photographic images shows:

How is this object [a table] constituted? I will have to take all the possible representations of the universe of which this object is a part, each of these representations being an absolutely indivisible whole, in such a way that everything that is not this table

³⁷ H. Bergson, *Matter and Memory*, p. 232.

³⁸ H. Bergson, *Matter and Memory*, p. 31. See J. Dewey, *Perception and Organic Action*, «The Journal of Philosophy, Psychology and Scientific Methods», 24/9, 1912, pp. 645-668.

³⁹ H. Bergson, *Matter and Memory*, p. 230.

⁴⁰ H. Bergson, *Matter and Memory*, p. 231.

⁴¹ Cited from L. Strickland, *Leibniz's Monadology*, p. 24 (*Monadology*, 49: GP, VI, 615). See, J. Jorati, «Monads and their actions», in *Leibniz on Causation and Agency*, Cambridge 2017, pp. 8-36.

⁴² See A.-L. Rey, «Action, Perception, Organisation», in J. E. H. Smith and O. Nachtomy (eds.), *Machines of Nature and Corporeal Substances in Leibniz*, Dordrecht 2011, pp. 157-174.

in some way is eliminated, that there is interference between the fractions of the image, which do not concern only the table. The table, as an object, will be the remaining, which results from the reciprocal elimination of all the images that are not this table⁴³.

We cannot avoid relating these words to Francis Galton's attempt to photograph human types by superimposing images of individuals to obtain the resulting average image, the «average man» representing a particular type (e.g. criminals)⁴⁴. When Bergson conceives of perception as a subtraction rather than an imposition of subjective categories (as in Kant), he is following a similar logic.

3. The possible, the Virtual, and the Problem of Determinism

Leibniz emphasises the role of possibilities to preserve freedom and not fall into Spinoza's necessitarianism. Leibniz's notion of the possible is logical: something not implying contradiction, and possibilities exist as ideas in God's mind. However, not all possibilities are equally possible⁴⁵. Only those which are compossible can constitute a possible world⁴⁶. And only the best of all possible worlds is created, while the other infinite worlds remain as mere possibilities⁴⁷. In the created world, everything that will happen, as well as all human actions are determined from the creation onward. For Leibniz this does not imply an absolute determinism or logical necessity, but only a hypothetical or moral necessity⁴⁸. The previous states only incline future actions without necessitating them⁴⁹. Thus, affirming the ontological status of the possible, Leibniz thinks that freedom is preserved.

Bergson agrees with Leibniz in giving an ontological status to the possible to preserve freedom, but he rejects Leibniz's appeal to hypothetical necessity. For Bergson, Leibniz's incorporation of finality does not differentiate his system from Spinoza's mechanical one, because in both cases «everything is given»: the effect

⁴³ H. Bergson, *Histoire de l'idée de temps*, p. 343 (my trans.).

⁴⁴ See F. Galton, *Composite Portraits*, «Journal of the Anthropological Institute of Great Britain and Ireland», 8, 1879, pp. 132-142.

⁴⁵ See P. Rateau, «Ce qui fait un monde. Compossibilité, perfection et harmonie», in *Leibniz et le meilleur des mondes possibles*, Paris 2015, pp. 45-76.

⁴⁶ See *Monadology*, §§ 53-55. (*GP*, VI, 615-6). See L. Strickland, *Leibniz's Monadology*, pp. 24-25.

⁴⁷ See P. Rateau, «Perfection, harmonie et choix divin chez Leibniz. En quel sens le monde est-il le meilleur?», in *Leibniz et le meilleur des mondes possibles*, pp. 77-100.

⁴⁸ «It is a hypothetical necessity, a moral necessity, which, far from being contrary to freedom, is the effect of its choice», G. W. Leibniz, *Theodicy. Essays on the Good of God, the Freedom of Man and the Origin of Evil*, tr. E. M. Huggard, 2007, p. 201 (*GP*, VI, 174, § 124). For Leibniz's notion of freedom see: G. W. Leibniz, *Escritos en torno a la libertad, el azar y el destino*, ed. C. Roldán, Madrid 1990; G. H. R. Parkinson, *Leibniz on Human Freedom*, 1970; J. Moreau, *Leibniz devant le labyrinthe de la liberté*, «Studia Leibnitiana», 16/2, 1984, pp. 217-229; J. McDonough, «Freedom and Contingency», in M. R. Antognazza (ed.), *The Oxford Handbook of Leibniz*, pp. 85-99.

⁴⁹ «And as for the connexion between causes and effects, it only inclined, without necessitating, the free agency», G. W. Leibniz, *Theodicy*, p. 155 (*GP*, VI, 80, § 54).

is already preformed in the cause, that is, the concretion of the possibilities does not bring a real novelty⁵⁰. In «The Possible and the Real»⁵¹, Bergson takes the creation of artwork as the model to explain his view about the non-deterministic concretion or realisation of possibilities. The embodiment of an already given form does not take place in artistic creation. Artistic creation does not consist in incorporating an active form in a passive matter, but in a concretion making that form itself possible. The possible becomes such only retrospectively from the actual. «The possible is therefore the mirage of the present in the past»⁵². This is the difference between what we may call the «realisation of possibilities» and the «actualisation of virtualities»⁵³. «The idea immanent in most philosophies and natural to the human mind, of possibles which would be realised by an acquisition of existence, is therefore pure illusion»⁵⁴. Bergson uses the term «virtual» pointing precisely to the non-existent «possibilities»⁵⁵, or the qualitative multiplicity characteristic of the *durée*, which opposes to the quantitative or spatial multiplicity, the *partes extra partes*, defining matter traditionally⁵⁶. This concept allows him to break up with determinism and the elimination of the novelty that implies the mere realization of something already given (be it an essence or a possibility).

The use of the term «virtual» shows again Leibniz's influence on Bergson, but the French philosopher gives to this notion a new meaning, opposing the indeterminism of duration to the determinism of Leibnizian pre-established harmony. For Leibniz «virtual» refers to pre-existent possibilities⁵⁷. For example, in the *New Essays*, he compares «virtual knowledge» with the veins on a marble stone, which outlines «a shape which is in the marble before they are uncovered

⁵⁰ «The doctrine of teleology, in its extreme form, as we find it in Leibniz for example, implies that things and beings merely realize a program previously arranged. But if there is nothing unforeseen, no invention or creation in the universe, time is useless again. As in the mechanistic hypothesis, here again it is supposed that *all is given*», H. Bergson, *Creative Evolution*, p. 45.

⁵¹ H. Bergson, *Creative Mind*, tr. Mabelle L. Andison, New York 1946, p. 106.

⁵² H. Bergson, *Creative Mind*, p. 118.

⁵³ The French philosopher I. Stengers establishes this distinction following Bergson and Deleuze, considering their contrast between possible and virtual. See I. Stengers, *Cosmopolitiques II*, Paris 2003, p. 227n.

⁵⁴ H. Bergson, *Creative Mind*, p. 119.

⁵⁵ «Although Bergson uses the concept of “virtual” in various ways, we can resume attributing three main features to it: *reality*, firstly, insofar as the virtual is rooted to a certain extent in being; *becoming*, secondly, because everything that is virtual is different from what is actual in that it is “in the process of being actualized”; *indetermination*, finally, because what is not yet actualized has no defined contours and constitutes in itself a factor of unpredictability», P.-A. Fradet, *Bergson, Heidegger et la question du possible: le renversement d'une conception classique*, «Ithaque. Revue de philosophie de l'Université de Montréal», 8, 2011, p. 112. See also M. Parmentier, *Virtualité et théorie de la perception chez Bergson*, «Methodos. Savoirs et textes (online)», 17, 2017.

⁵⁶ H. Bergson, *Time and Free Will. An Essay on the Immediate Data of Consciousness*, tr. F. L. Pogson, Mineola, 2001, pp. 75-ff. For a history of matter's notion, see: I. Leclerc, «The Concept of the Physical», in *The Nature of Physical Existence*, London 1972, pp. 99-ff.

⁵⁷ See M. Parmentier, *Leibniz et le virtuel*, «Revue d'histoire des sciences», 68/2, 2015, pp. 447-473; M. Vollet, *El papel de Leibniz para la metafísica de Henri Bergson. Las nociones de 'posible' y 'tendencia'*, cit., pp. 191-210.

by the sculptor»⁵⁸. With «virtual» Leibniz also emphasise the active nature of possibilities, a trait lost with the metaphor of the marble veins. For him, possibilities are never merely passive but active; striving to be actualised. «True powers are never simple possibilities; there is always endeavour, and action»⁵⁹. Bergson knew very well Leibniz's proposal of active or striving possibilities, assuming it in his use of the notion of virtuality. Indeed, in 1898 he gave a course on Leibniz's text «On the Ultimate Origination of Things» (1697)⁶⁰, where Leibniz says things like this: «there is a certain urge for existence or (so to speak) a straining toward existence in possible things or in possibility or essence itself; in a word, essence in and of itself strives for existence»⁶¹. Thus, in his notion of the virtual, Bergson maintains the active character Leibniz assigns to the possible while leaving aside its pre-existence.

Connecting virtuality and indetermination (associated with the freedom of living beings) Bergson breaks one of Leibniz's fundamental principles, namely, the principle of sufficient reason⁶². From Leibniz's point of view, indetermination of choice means «indifference of equilibrium»⁶³, which he identifies with some interpretations of Buridan's ass⁶⁴. This indifference does not save freedom but turns it into something arbitrary, purely capricious. Also, indifference is a mere fiction because there is no perfect balance in the world. However small, there are always differences, allowing to distinguish one thing from another (principle of identity of the indiscernibles)⁶⁵. Does Bergson adequately respond to the challenge of the indifference of equilibrium? I believe the answer is not clear. Bergson locates indetermination at the basis of freedom of choice but without establishing a solid metaphysical grounding for it because he rejects the existence of chance⁶⁶. It follows the question whether indetermination is just a psychological state or not. If so, Bergson would follow Leibniz, setting up a kind of moral or hypothetical determinism. And, if indeterminacy does not

⁵⁸ Cited from G. W. Leibniz, *New Essays on Human Understanding*, ed. by P. Remnant and J. Bennett, 1996, p. 86 (AA, VI, 6, 86). G. W. Leibniz, *Philosophischen Schriften. VI Reihe. Band 6*, Akademie, 1962 [AA, VI, 6].

⁵⁹ G. W. Leibniz, *New Essays on Human Understanding*, p. 112 (AA, VI, 6, 112).

⁶⁰ «Cours de Bergson sur le *De rerum originatione radicali* de Leibniz», in F. Worms (ed.), *Annales bergsoniennes III. Bergson et la science*, Paris 2007, pp. 25-52.

⁶¹ Cited from G. W. Leibniz, *Philosophical Essays*, tr. Roger Ariew and Daniel Garber, Indianapolis 1989, p. 150 (GP VII, 303).

⁶² *Monadology*, § 33 (GP, VI, 612). See L. Strickland, *Leibniz's Monadology*, p. 20. For a complete study of the Principle of Sufficient Reason in Leibniz see J. A. Nicolás, *G. W. Leibniz: Razón, verdad y libertad. Análisis histórico-crítico del principio de razón suficiente*, Granada 1990 (available online at: <https://digibug.ugr.es/handle/10481/6327>).

⁶³ G. W. Leibniz, *New Essays on Human Understanding*, p. 56 (AA, VI, 6, 56).

⁶⁴ G. W. Leibniz, *Theodicy*, p. 153 (GP, VI, 129, § 49). On the problem of «Buridan's Ass» see N. Rescher, *Choice without Preference. A Study of the History and the Logic of the Problem of «Buridan's Ass»*, «Kant-Studien», 51, 1-4, 1960, pp. 142-175. For the relation between this problem and indifference of equilibrium, see R. Imlay, *Leibniz on Freedom of the Will: a Vindication*, «Studia Leibnitiana», 34/1, 2002, pp. 81-90.

⁶⁵ *Monadology*, § 9 (GP, VI, 608). See L. Strickland, *Leibniz's Monadology*, p. 15.

⁶⁶ See H. Bergson, *Creative Evolution*, p. 255.

depend on ontological chance but on the virtual, what is the virtual then from an ontological perspective? One possible answer would be to consider the will as the basis of freedom of choice; and this would imply a kind of Cartesian God's will, something Leibniz would strongly reject⁶⁷.

4. Memory, *petites perceptions*, and the Unconscious

In *Matter and Memory*, chapter two, Bergson states his conception of perception as a kind of action mediated by memory from the standpoint of human perception. Perspective, indeterminism, choice, freedom, all these notions play a key role in it.

In Bergson's proposal, memory is not the conservation of recollections in the brain or in something material, but in the mental or spiritual (*durée*). This conservation is what he calls «pure memory»⁶⁸. In it, all our experiences and perceptions preserve themselves as virtual remembrances. He describes this «pure memory» as passive and inaccessible to consciousness⁶⁹, as an unconscious realm. However, this memory plays a fundamental role in the mechanism of perception-action contributing with what Bergson calls «remembered images»⁷⁰. These images are accessible to consciousness, and they become part of the actual perception according to their adjustment with the needs of the present action. Thus, our actual perception is full of past. We perceive with the eyes of our memory and our lived experience.

Your perception, however instantaneous, consists then in an incalculable multitude of remembered elements; in truth, every perception is already memory *Practically, we perceive only the past*, the pure present being the invisible progress of the past gnawing into the future⁷¹.

In appealing to an unconscious «pure memory», Bergson incorporates into the perception-action an «internal» element equivalent to the «external»

⁶⁷ See G. W. Leibniz, *Theodicy*, p. 247 (*GP*, VI, 227, § 185).

⁶⁸ H. Bergson, *Matter and Memory*, p. 113. Bergson distinguishes two kinds of memory: one explicitly using images and the other not. And he calls them, respectively, «image-memory» and «body-memory». See H. Bergson, *Matter and Memory*, p. 79. «Pure memory» uses images, but, unlike remembered images, they are unconscious. For this reason, some scholars identify three kinds of memory in Bergson, see F. Worms, *Introduction à Matière et mémoire de Bergson*, Paris 1997, p. 64. For Bergson's notion of memory, see also L. Lawlor, «The Concept of Memory: Ontology», in Id. *The Challenge of Bergsonism. Phenomenology, Ontology, Ethics*, pp. 27-59; K. Ansell-Pearson, «Bergson on Memory», in S. Radstone and B. Schwarz (eds.), *Memory. Histories, Theories, Debates*, New York 2010, pp. 61-76; and P. Ricoeur, *La mémoire, l'histoire, l'oubli*, Paris 2000, p. 30.

⁶⁹ H. Bergson, *Matter and Memory*, p. 141.

⁷⁰ H. Bergson, *Matter and Memory*, p. 155.

⁷¹ H. Bergson, *Matter and Memory*, p. 150. The French philosopher Jean Hyppolite calls this duration, joining unity and multiplicity, the «bergsonian *cogito*». See J. Hyppolite, *Aspects divers de la mémoire chez Bergson*, «Revue Internationale de Philosophie», 10/3, pp. 373-391.

non-attended matter-images, because both of them escape the scope of actual attention. The concrete perception synthesizes «pure perception»⁷², perception-action without the influence of memory, and «pure memory», memory without the influence of perception or action.

The relation Bergson establishes between perception, memory, and unconsciousness reveals again Leibniz's influence. Particularly relevant for this is Leibniz's notion of *petites perceptions* (minute perceptions) he develops especially in the *New Essays on Human Understanding* (1765).

Unlike Descartes and Locke, for whom consciousness is the key to understand perception, Leibniz assigns a leading role to the pre-conscious or «unconscious» states represented in his philosophy by what he calls *petites perceptions*. These perceptions are perceived but not apperceived (consciously perceived). They act on us but they fall short of our conscious attention.

To give a clearer idea of these minute perceptions which we are unable to pick out from the crowd, I like to use the example of the roaring noise of the sea which impresses itself on us when we are standing on the shore. To hear this noise as we do, we must hear the parts which make up this whole, that is the noise of each wave, although each of these little noises makes itself known only when combined confusedly with all the others, and would not be noticed if the wave which made it were by itself. We must be affected slightly by the motion of this wave, and have some perception of each of these noises, however faint they may be; otherwise there would be no perception of a hundred thousand waves, since a hundred thousand nothings cannot make something⁷³.

Bergson states something similar when he refers to the relationship between physical phenomena and our conscious perception of them.

And yet we know that millions of phenomena succeed each other while we hardly succeed in counting a few. We know this not from physics alone; the crude experience of the senses allows us to divine it; we are dimly aware of successions in nature much more rapid than those of our internal states⁷⁴.

The minute perceptions are crucial in Leibniz's metaphysics of the continuum. They save the continuity from the discontinuity of attentive consciousness (apperception), avoiding the jumps between one conscious state and the next one.

These minute perceptions, then, are more effective in their results than has been recognized. They constitute that *je ne sais quoi*, those flavours, those images of sensible qualities, vivid in the aggregate but confused as to the parts; those impressions which are made on us by the bodies around us and which involve the infinite; that connection that each being has with all the rest of the universe⁷⁵.

⁷² H. Bergson, *Matter and Memory*, p. 65.

⁷³ Cited from G. W. Leibniz, *New Essays on Human Understanding*, p. 54 (AA, VI, 6, 54).

⁷⁴ H. Bergson, *Matter and Memory*, p. 207.

⁷⁵ Cited from G. W. Leibniz, *New Essays on Human Understanding*, p. 54 (AA, VI, 6, 54).

Another aspect on which Bergson and Leibniz agree is the role unconscious perceptions play in sleeping and dreaming. Bergson, in his text «Dreams» (1901), published almost at the same time as Freud's *The Interpretation of Dreams* (1899), rejects the conception of sleeping as a kind of disconnection from the world of external perceptions. For him, the subject matter of many of our dreams rests on barely perceived perceptions: «in natural sleep our senses are by no means closed to external impressions. No doubt, they no longer have the same precision»⁷⁶. «Some tell us that sleep consists in being isolated from the external world. But we have seen that sleep does not close our senses to external impressions, and that these impressions provide the materials of most of our dreams»⁷⁷. Likewise, Leibniz highlights the role of minute perceptions in sleeping too:

We never sleep so soundly that we do not have some feeble and confused sensation; and the loudest noise in the world would never waken us if we did not have some perception of its start, which is small, just as the strongest force in the world would never break a rope unless the least force strained it and stretched it slightly, even though that little lengthening which is produced is imperceptible⁷⁸.

Leibniz argues against the closure of the senses in sleeping, appealing to the continuity between being awake and being asleep. If they were closed states, the continual transition between them would be impossible, requiring an external cause operating as a bridge between them. This external intervention would break the subject's internal spontaneity (the only kind of activity Leibniz accepts). Finally, let us say that, despite the similarities, there are remarkable differences between Leibniz's and Bergson's conception of the unconscious. In Bergson, pure memory is not directly accessible to consciousness, only indirectly through remembered images composing the actual perception, and they are completely indifferent to action. In contrast, for Leibniz, minute perceptions can, in principle, become conscious, if not for us, at least for a divine intellect; and they act in the decisions we make, in our tastes, judgements, etc. They determine these actions without necessitating them.

5. The Spiritual as the Foundation of Continuity and Duration in Leibniz and Bergson

In the previous sections of this paper, I highlighted similarities and differences between Leibniz and Bergson. The similarities are due to an intimate affinity allowing for a fruitful exchange between their philosophies, namely: their metaphysics of continuity, duration, and tendency, based on the spiritual.

⁷⁶ H. Bergson, *Mind-Energy*, p. 112. See B. Gilson, «La perception et le souvenir», in *L'individualité dans la philosophie de Bergson*, Paris 1985, pp. 19-36.

⁷⁷ H. Bergson, *Mind-Energy*, p. 122.

⁷⁸ Cited from G. W. Leibniz, *New Essays on Human Understanding*, p. 54 (AA, VI, 6, 54).

In Bergson's *Matter and Memory*, «pure memory» establishes the spiritual element of continuity and duration, preserving all the experiences of and individual. The open impulse or tendency is not internal to the duration as pure memory but associated with the material, the body's perception-action. On the contrary, in *Creative Evolution* (1907), Bergson will combine duration, continuity, and impulse in one and the same duration: the *élan vital* (vital impulse)⁷⁹.

In Leibniz, continuity and duration play a prominent and constant role. However, he understands duration in a different way than Bergson. Bergson conceives of duration as conservation in time, or better, as conservation that is time. In contrast, Leibniz conceives of it as the pre-existence of all events (past, present, and future), that is, as conservation given from the beginning.

It can even be said that by virtue of these minute perceptions the present is big with the future and burdened with the past, that all things harmonize – *symphonia panta*, as Hippocrates put it – that eyes as piercing as God's could read in the lowliest substance the universe's whole sequence of events – 'What is, what was, and what will soon be brought in by the future' [Virgil]⁸⁰.

However, when referring to memory in the *New Essays*, Leibniz speaks of duration in a way reminding that of Bergson: «something remains of all our past thoughts, none of which can ever be entirely wiped out»⁸¹. I can affirm that «pure memory» and «minute perceptions» play an equivalent role in Leibniz's and Bergson's proposals. They emphasise the role of the spiritual.

In appealing to the spiritual, Bergson and Leibniz respond to a problem already raised by Descartes when he distinguishes and separates *res extensa* from *res cogitans*⁸². This is a synchronic or structural distinction, so to speak. Descartes considers substances, their features and differences, instantly, i.e., independently from how they maintain themselves through time. How do they last? Occasionalists respond appealing to the action of God⁸³. At each instant, the world disappears and is recreated by the power of God. For Leibniz, this response is unacceptable because the foundation of continuity and duration must be found in the substance itself. Hence his conception of substances as active and spontaneous, founding their continuity and duration on force and law, which regulates substances' ordered successive moments⁸⁴. Already in his

⁷⁹ H. Bergson, *Creative Evolution*, p. 140. See M. Vollet, «La vitalisation de la tendance: de Leibniz à Bergson», in A. Fagot-Largeault and F. Worms (eds.), *Annales bergsoniennes IV. L'Évolution créatrice 1907-2007: épistémologie et métaphysique*, Paris 2008, pp. 285-292.

⁸⁰ Cited from G. W. Leibniz, *New Essays on Human Understanding*, p. 55 (AA, VI, 6, 55).

⁸¹ Cited from G. W. Leibniz, *New Essays on Human Understanding*, p. 113 (AA, VI, 6, 113).

⁸² See R. Descartes, *Meditations on First Philosophy. With Selections from Objections and Replies*, tr. M. Moriarty, Oxford 2008, p. 24 (AT, VII, 24).

⁸³ See G. W. Leibniz, *Theodicy*, p. 160 (GP, VI, 136, § 61).

⁸⁴ *Monadology*, § 11 (GP, VI, 608). See L. Strickland, *Leibniz's Monadology*, p. 16. About the notion of spontaneity in Leibniz see: D. Rutherford, «Leibniz on Spontaneity», in D. Rutherford/J. A. Cover (eds.) *Leibniz: Nature and Freedom*, New York 2005, pp. 156-180; and J. Jorati, *Three Types of Spontaneity and Teleology in Leibniz*, «Journal of the History of Philosophy»,

Theoria motus abstracti (1671), Leibniz states that the distinction between mind and body should be made from a temporal standpoint not from a spatial one. In this way, he defines matter as an «instantaneous spirit» without memory: «every body is a momentary mind, or one lacking recollection [*recordatio*]»⁸⁵. Bergson supports and generalises this statement considering time synonymous with life and spirit and placing it as the principle of ontological

In reality there is no one rhythm of duration; it is possible to imagine many different rhythms which, slower or faster, measure the degree of tension or relaxation of different kinds of consciousness and thereby fix their respective places in the scale of being⁸⁶.

And in *Matter and Memory* he says: «Questions relating to subject and object, to their distinction and their union, should be put in terms of time rather than of space»⁸⁷. This is a recurrent statement in Bergson's philosophy, both in his lectures and published books. It is crucial to understand his philosophy in general, not only his distinction between matter and memory, and mind and body. He always attributes this idea to Leibniz, for example, in «Life and Consciousness» (1911):

A consciousness unable to conserve its past, forgetting itself unceasingly, would be a consciousness perishing and having to be reborn at each moment: and what is this but unconsciousness? When Leibniz said of matter that it is “a momentary mind,” did he not declare it, whether he would or not, insensible? All consciousness, then, is memory, -conservation and accumulation of the past in the present⁸⁸.

Bergson accepts that conceiving of matter as mere extension makes the foundation of its continuity problematic. Thus, matter requires spirit. And he knows, following Leibniz, that continuity requires conservation of the past and openness to the future, considering the present as a limit between them. As French philosopher Gilles Deleuze recalls in *The Fold*: «Unity of movement is an affair of the soul, and almost of a conscience, as Bergson will later discover»⁸⁹.

Thus, Bergson assumes Leibniz's criticisms of Descartes' physics⁹⁰, which conceives of matter as a mere extension. One of these criticisms is that matter as

53/4, 2015, pp. 669-698. On activity, forces and laws, see D. Rutherford, «Laws and Powers in Leibniz», in E. Watkins (ed.), *The Divine Order, the Human Order, and the Order of Nature. Historical Perspectives*, New York 2013, pp. 149-174.

⁸⁵ AA, VI, 2, 266; GP, IV, 230. Cited from G. W. Leibniz, *Philosophical Papers and Letters*, tr. L. E. Loemker, Dordrecht 1975, p. 141. See F. Manzo, *Memoria e sostanzialità nella filosofia di Leibniz*, «Lo Sguardo – Rivista di Filosofia», 28, 2019, pp. 91-115.

⁸⁶ H. Bergson, *Matter and Memory*, p. 207.

⁸⁷ H. Bergson, *Matter and Memory*, p. 71.

⁸⁸ H. Bergson, *Mind-Energy*, p. 8.

⁸⁹ G. Deleuze, *The Fold. Leibniz and the Baroque*, London 1993, p. 12. See also the section «Leibniz and Bergson: movement as it happens», in G. Deleuze, *The Fold*, p. 72.

⁹⁰ See G. W. Leibniz, «On body and Force, Against the Cartesians (May 1702)», in R. Ariew and D. Garber (eds.), *Philosophical Essays*, 1989, p. 250 (GP, IV, 393-400). Also see J. W. Na-

extension cannot provide the cohesion, continuity, and indivisibility that motion requires. Descartes' kinematic conception of physics is replaced by Leibniz with a dynamic one, incorporating the notion of force, a spiritual element permitting to understand motion adequately⁹¹. Motion requires the continuity of a force that is not purely actual, but potential tendency, and impulse. We find a key point leading us to Zeno's paradoxes, which Bergson studied⁹², namely: that movement cannot be composed of immobilities, and that the moving thing is halfway between motion and rest. As Leibniz says in *Monadology* § 13: «as every natural change takes place by degrees, something changes and something remains» (GP, VI, 608)⁹³. This is the basis of Bergson's criticism of time's spatialisation, which makes time a mere trajectory, a set of stops; or in other words, a set of punctual presents.

In brief, Leibniz and Bergson appeal to a metaphysics of continuity, duration, and tendency, based on the spiritual or mental. In it, the material is instantaneous, timeless, and incapable of grounding by itself the continuity and duration that movement requires.

7. Conclusions

I have studied Leibniz's influence on Bergson's notions of image, matter, memory, and perception, as the French philosopher develops it in his book *Matter and Memory*. I called Bergson's proposal an «updated monadology». I have emphasized similarities and differences between Bergson's and Leibniz's proposals. Among their main similarities: the images as the universe's constitutive elements, all relating to each other; the relevance of perspective; the relation between perspective, perception, and action; the importance of the possible and the virtual and their role in action; the appeal to unconscious perceptions. I conclude that these similarities are based on a common appeal to a spiritual metaphysics of continuity, duration, and impulse having time as the crucial element to distinguish between matter and spirit, body and mind. There are remarkable differences too, such as: the appeal to purely spiritual images in Leibniz (the monads), and to material-spiritual ones in Bergson (the matter-images); the different notion of action: in Bergson it is equivalent to physical action, in Leibniz to non-causal relation; the different notion of the virtual: pre-existent possibility in Leibniz, non-pre-existent in Bergson; the different notion of unconscious perception: active and potentially conscious in Leibniz, inactive and non-directly accessible to consciousness in Bergson. All these differences arise from different metaphysical principles grounding their respective philosophies,

son, *Leibniz's Attack on the Cartesian Doctrine of Extension*, «Journal of the History of Ideas», 6, pp. 447-83.

⁹¹ See F. Duchesneau, «Les fondements de la physique selon Leibniz», in M. Laerke et al. (dir.), *Leibniz. Lectures et commentaires*, p. 147; D. Garber, «Leibniz: Physics and philosophy», in N. Jolley (ed.), *The Cambridge Companion to Leibniz*, p. 270.

⁹² H. Bergson, *Matter and Memory*, p. 191.

⁹³ Cited from L. Strickland, *Leibniz's Monadology*, p. 16.

which are evident in their views about the problem of determinism. Bergson tries to draw an evolving, open, creative, and indeterminate universe, driven by life (the 19th Century biological theories of evolution play an important role in his view). Leibniz draws a deterministic universe where nothing is really new because everything pre-exist. Bergson's universe is changing and unstable, Leibniz's one is to some extent static and stable. Two «monadologies» for two different historical times.

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