

A NICHE FOR SUBJECTIVITY

Emergence and Process According to S. Alexander and A.N. Whitehead

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An emergentist account of subjectivity is interesting for two reasons. On the one hand, emergentism provides a new paradigm to rethink subjectivity, beyond any dualism. On the other hand, the issue of subjectivity seems to put a strain on emergentism itself, and to push it beyond its limits. To show it, in the present paper I address a fundamental question: How can we describe subjectivity from an emergentist perspective? To provide an answer, I will tackle Samuel Alexander's and Alfred North Whitehead's emergentist accounts of subjectivity. Alexander locates subjectivity into a consistent emergentist framework, but his model of subjectivity remains grounded in the classical interpretation of subjectivity as mind. Whitehead gives a more innovative model of subjectivity, which implies a radical revision of its temporality and connection to the world, but this leads him beyond emergentism as a whole.

In particular, in the first part I present a general clarification of the *meaning* of 'emergence', tracking it back from the present debates to British Emergentism. In the second part, I sketch a comparison between Alexander's and Whitehead's metaphysics, so to understand their different approaches to subjectivity. In the third part, I address in a more detailed way their accounts of subjectivity, and explain how they fit into Alexander's and Whitehead's theories of emergence.

1. Traces of Emergence: From Current Debates to British Emergentism

Given the salience of this concept in contemporary debates, let me begin with a brief survey of the *current* meaning of emergence. During the past two decades, the concept of *emergence* has been renovated by debates concerning both complex systems and the philosophy of mind. This renewed interest is due on the one hand to emergence's potential explicatory function of complex systems; on the other to the disclosure of a 'non-reductive' physicalism¹, which this concept claims to allow. Broadly speaking – as Goldstein suggests – the concept of emergence primarily «refers to the arising of novel and coherent structures, patterns, and properties during the process of self-organization in complex systems»². Furthermore, the effort to handle the notion of 'emergence' in addressing some classical philosophical issues (above all the mind-body problem) has led to new perspectives that, according to O'Connor, can be described as

a *via media* between the extremes of radical dualism and reductionism. This middle road consists in the claim that the phenomenon in question is at

¹ Cf. T. Crane, *The Significance of Emergence*, in C. Gillett, B. Loewer (eds.), *Physicalism and Its Discontents*, Cambridge University Press, Cambridge 1999, p. 207.

² J. Goldstein, *Emergence as a Construct: History and Issues*, «Emergence: Complexity and Organization», 1, 1999, p. 49.

once grounded in and yet emergent from the underlying material structure with which it is associated³.

Apart from the different applications of the concept of emergence in systems theories and in the philosophy of mind, the above description can be regarded as the general claim and horizon involved by every perspective grounded in the notion of emergence. In order to understand whether or not this third way is possible, we need first of all to clarify what the concept of emergence specifically stands for. What does *emergence* mean? To address this question, in this first part of the paper (i) I consider by and large the current status of the contemporary debates on Emergentism and their general idea of emergence, and (ii) I trace back this notion to its first appearance in the late 19th century and contextualize it within the broader field of emergent evolution, with special reference to British Emergentism.

(i) To grasp the *current meaning* of emergence⁴, we need first to distinguish between its *epistemological* and *metaphysical* senses, even though in many cases these approaches are intertwined. The split between epistemological and metaphysical emergentism arises from an attempt to answer a tacit question, which can be formulated as follows: are emergent phenomena the results of our limited patterns of knowledge or rather some inherent features of the real world, with their own properties and causal structures?

On the epistemological side, as C.G. Hempel and P. Oppenheim claim:

Emergence is not an ontological trait inherent in some phenomena; rather it is indicative of the scope of our knowledge at a given time; thus it has no absolute, but a relative character, and what is emergent with respect to the theories available today may lose its emergent status tomorrow⁵.

³ T. O'Connor, *Emergent Properties*, «American Philosophical Quarterly», 31, 1994, p. 91.

⁴ As I mentioned above, the purpose of the present section is *not* to give a thorough account of Emergentism's theories, but to focus on the meaning of emergence. Regarding general accounts on emergentism, I refer the readers to others' recent works. In particular, for an overview from a metaphysical perspective cf. J. Blachowicz, *Essential Difference. Toward a Metaphysics of Emergence*, State University of New York Press, Albany 2012. Regarding the main stances and general issues, cf. the recent collections: C. Macdonald, G. Macdonald (eds.), *Emergence and Downward Causation*, Oxford University Press, Oxford 2010; A. Corradini, T. O'Connor (eds.), *Emergence in Science and Philosophy*, Routledge, New York 2010; P. Clayton, P. Davis (eds.), *The Re-Emergence of Emergence*, Oxford University Press, Oxford 2006; C. Gillett, B. Loewer (eds.), *Physicalism and Its Discontents*, Cambridge University Press, Cambridge 1999; A. Beckermann, H. Flohr, J. Kim (eds.), *Emergence or Reduction? Essays on the Prospects of Nonreductive Physicalism*, de Gruyter, Berlin/New York 1992. Besides the articles already mentioned, among others special attention should be paid to J. Kim, *Making Sense of Emergence*, «Philosophical Studies», 95, 1999, pp. 3-36; R. Van Gulick, *Reduction, Emergence and Other Recent Options on the Mind/Body Problem: A Philosophic Overview*, «Journal of Consciousness Studies», 8, 9-10, 2001, pp. 1-34; J. Kim, *Emergence: Core Ideas and Issues*, «Synthese», 151, 3, 2006, pp. 547-59; T. O'Connor, H.Y. Wong, *The Metaphysics of Emergence*, «Noûs», 39, 2005, pp. 658-678; R.M. Francescotti, *Emergence*, «Erkenntnis», 67, 1, 2007, pp. 47-63.

⁵ C.G. Hempel, P. Oppenheim, *Studies in the Logic of Explanation*, in C.G. Hempel, *Aspects of Scientific Explanation and Other Essays in the Philosophy of Science*, The Free Press, New York 1965, p. 263.

While, from an ontological perspective, emergence points out a structural «occurrence of qualitative novelty»⁶: given a complex system, fully understandable in terms of physics, the more its structural complexity increases, the more new properties emerge – that is to say properties not owned by, predictable from or reducible to the ones previously exhibited, either by their simple constituents or by their sum. Thus, according to epistemological emergentism, emergent phenomena are a product of our cognitive limitations, and their emergence is just apparent or relative to the state of advancement of our theories. Ontological emergentism, in its turn, argues for the real emergence of qualitative novelties, arising from the increasing structural complexity of phenomena. Since ontological emergentism provides a much stronger claim about emergent phenomena than epistemological emergentism, I will focus on it in the following pages of my paper.

More accurately, and although there isn't any common agreement among emergentists, following Jaegwon Kim⁷ we can single out the main claims of this stream of thought as follows:

1. The Emergence of complex higher-level *entities* (namely, the emergence of new structural configurations, with a higher-level of complexity, from the coming together of lower-levels entities);
2. Emergence of higher-level *properties* (the higher-level properties arise out of the constituent part, some of them are mere resultant while other are «emergent»);
3. Unpredictability of emergent properties (we can properly speak of emergent properties if all information concerning their basic conditions cannot predict *in principle* the properties themselves);
4. The unexplainability/irreducibility of emergent properties (emergent properties cannot be reduced nor explained in terms of their basal conditions);
5. The causal efficacy of the emergents (emergent properties have their own causal powers, irreducible to their constituents and agent both at their level and down on the lower levels).

Of course, this short list has to be understood not as an exhaustive one, but rather as laying out the various themes that an emergent theory should tackle. Furthermore, if these can be considered as the core topics of Emergentism, nevertheless they involve some inconsistencies and undecided issues that still today await further explanations, in order to make Emergentism itself a distinct, clear and coherent theory in current debates. As Kim recently states, the primary urgency is to give a «positive characterization of emergence» and a «coherent explanation of “downward” causation»⁸. To this extent, our wondering about the concept of emergence seems to meet, in relation to contemporary debates, multi-faceted arguments that allow us to get closer to the problems involved but at the same time lead us even farther from a plain answer. Indeed, these arguments make us confront again with the starting question: What is the meaning of emergence?

⁶ M. Bunge, *Emergence and Convergence: Qualitative Novelty and the Unity of Knowledge*, University of Toronto Press Incorporated, Toronto/Buffalo/London 2003, p. 14.

⁷ For the following classification, cf. J. Kim, *Making Sense of Emergence*, cit., pp. 20-24.

⁸ J. Kim, *Emergence: Core Ideas and Issues*, cit., p. 547.

How to explain it? Also, why does it look so captivating for many? As Kim underlines:

What it is about emergence that makes it such an attractive idea to so many thinkers, with diverse and disparate backgrounds and agendas – philosophers, practicing scientists from a variety of scientific fields, and science writers – is itself an intriguing philosophical question [...]⁹.

Thus, in order to understand what emergence means and why it is such an «attractive» idea, the next step is to trace this concept of emergence back to its origins and to the context within which it arose, as well as to the problems it meant to refer to at that time. Indeed, since these questions about the meaning of emergence remain unanswered today, we should investigate how and why the notion of emergence was used at the beginning. In this way, we also follow Kim, insofar as he states:

Of course we do not start with a totally blank page when we now ponder how best to understand emergence. [...] Any account of emergence, I believe, should show significant continuity with the concept that the British emergentists of the early 20th century¹⁰.

(ii) Who are the British Emergentists of the early 20th century? What is the British Emergentism? Generally speaking, the main figures of the British Emergentism of the 20th century are Conwy Lloyd Morgan (1852-1936), Samuel Alexander (1859-1938) and Charlie Dunbar Broad (1887-1971), who set up, with similar outlooks, a general systematic theory of nature as a layered reality, explainable in terms of emergence. With their masterpieces, Alexander's *Space, Time and Deity*¹¹ (1920), Lloyd Morgan's *Emergent Evolution*¹² (1923) and Broad's *The Mind and its Place in Nature*¹³ (1925), they tried to give a materialistic, evolutionary account of universe, which goes beyond any mechanistic and vitalistic viewpoint.

In this perspective, although they didn't develop any unique or common doctrine, it is possible to sketch out their general conceptions, as Brian McLaughlin has illustrated¹⁴. According to British Emergentism, (a) all reality is made up of

⁹ *Ibidem*.

¹⁰ Ivi, p. 548.

¹¹ S. Alexander, *Space, Time, and Deity*, 2 vol., Macmillan, London 1920 (from now indicated as STD, followed by I or II).

¹² C. Lloyd Morgan, *Emergent Evolution*, Williams and Norgate, London 1923.

¹³ C.D. Broad, *The Mind and Its Place in Nature*, Routledge & Kegan Paul, London 1925.

¹⁴ Cf. B. McLaughlin, *The Rise and Fall of British Emergentism*, in A. Beckermann, H. Flohr, J. Kim (eds.), *Emergence or Reduction? Essays on the Prospects of Nonreductive Physicalism*, cit., p. 49: «[...] I will now briskly present, in modern dress, an idealized version of the main body of British Emergentist doctrine that will concern us. I should acknowledge that the Emergentists disagreed over some relevant details. I will, however, largely ignore their disagreements. My aim is to abstract a coherent and representative body of doctrines from their texts». About the differences, however remarkable, between their perspectives (in particular between Lloyd Morgan and Alexander, who first were recognized as «founders» of British Emergentism), cf. R. Metz, *A Hundred Years of British Philosophy*,

elementary material particles, therefore every change and event depends on particles' motion. These particles are conceived as discrete but related, structured in different levels. (b) Levels are hierarchically ordered on the basis of their degrees of organizational complexity and to each of them corresponds a science (e.g. physics, chemistry, biology and psychology). (c) For every level, which is composed of kinds of lower levels, there are specific kinds of material substances with specific properties. (d) Moreover, every substance has its power by virtue of its own structural composition, and this power endows it to influence motion. (e) To this extent, every structural pattern at every level has some emergent causal powers as a matter of law, but the law itself is emergent: it does not come from any law at lower levels or boundary conditions of particles¹⁵. Here, again, the concept of emergence becomes pivotal in understanding all the connections and interrelations among elements and levels, in this «monistic»¹⁶ universe which still provides different and irreducible properties and laws.

As Lloyd Morgan points out¹⁷, the philosophical notion of emergence pre-dates emergentist theories. However, it received a new meaning and relevance in view of the notion of evolution, on which the general scheme above reported is also based. How can we explain the existence of different and irreducible properties in a monistic universe, apart from evolution? British Emergentism's monistic and multi-layered approach aims at sketching an exhaustive account of a dynamic cosmos, always in change and motion, and not just at accounting for a differentiated but static universe. As we will see in a while, according to British Emergentist, the notion of evolution is therefore necessary, but still not enough for such an exhaustive account of the cosmos.

From another point of view, if we can distinguish with Achim Stephan four phases of emergentism throughout history¹⁸, British Emergentism of the early

The Macmillan Company, New York 1938, pp. 653-662. Since they were very popular in the early 20th Century, and almost unknown today, this book offers a clear outlook of their thoughts, by connecting them to the general philosophical context of their time.

¹⁵ For the complete outline cf. B. McLaughlin, *The Rise and Fall of British Emergentism*, cit., pp. 49-51.

¹⁶ We can call their universe «monistic» because every element of the universe stems from and is grounded in its first lower level. For instance, as it will be considered in the second part, according to Alexander everything is made up of space-time. In other words, no other elements or external factors are required to understand the universe itself.

¹⁷ Cf. C. Lloyd Morgan, *Emergent Evolution*, cit., pp. 2-3: «The concept of emergence was dealt with (to go no further back) by J.S. Mill in his *Logic* (BK. III, ch. vi. §2) under the discussion of “heteropathic laws” in causation. The word “emergent”, as contrasted with “resultant”, was suggested by G.H. Lewes in his *Problems of Life and Mind* (Vol. II. Prob. V. ch. iii. P. 412). Both [...] distinguish those properties (a) which are additive and subtractive only, and predictable, from those (b) which are new and unpredictable; both insist on the claim that the latter no less than the former fall under the rubric of uniform causation».

¹⁸ Achim Stephan traces two different outlines of emergentism: (a) the first one from a historical point of view, (b) the second one from a more conceptual standpoint. (a) From a historical perspective, he divides emergentism into four phases. The first one is referred to John Stuart Mill, George Henry Lewes and Alexander Bain, the second one to British Emergentism of the early 20th century. The third one to a long period which goes from 1926, when on the one hand took place the *Sixth International Congress of Philosophy* (with H. Driesch's *Emergent Evolution*, A.O. Lovejoy's *The Meaning of 'Emergence' and its Modes*, W.M. Wheeler's *Emergent Evolution and its Modes*), and on the other

20th century is to be counted as the second phase. In particular, compared with the other phases, its distinctive scope is to conceive a cosmology in terms of evolution, or better yet, in terms of an emergent evolution, that is, an evolution that grants «emergence as novelty»¹⁹. As Lloyd Morgan, who first adopted the concept of emergence²⁰, clearly maintains at the very beginning of his Gifford Lectures in 1921:

We live in a world in which there seems to be an orderly sequence of events. [...] *Evolution*, in the broad sense of the world, is the name we give to *the comprehensive plan of sequence in all natural events*.

But the orderly sequence, historically viewed, appears to present, from time to time, *something genuinely new*. Under what I here call emergent evolution, stress is laid on this incoming of the new²¹.

In this passage, Lloyd Morgan, as British Emergentists did, distinguishes between two otherwise conflated notions: a) *evolution* and b) *the incoming of the new*. Why such a distinction? Isn't novelty necessarily implied by evolution? To answer these questions, let me address Morgan's account of the two notions in some more detail.

(a) With *evolution*, Lloyd Morgan does not mean just to state the existence of «a universal process of change»²², but he especially refers to a comprehensive

the Aristotelian Society's symposium on *The Notion of Emergence* (where E.S. Russell, C.R. Morris, W.L. Mackenzie talked) – not counting S.C. Pepper's article *Emergence* –, to C.G. Hempel and P. Oppenheim's *Studies on the Logic of Explanation* in 1948 and E. Nagel's *The Structure of Science* in 1961. The fourth and last phase started from the seventies and still goes on today: it concerns the concept of emergence within the debates on psycho-physical problem and among its exponents are K.R. Popper, Roger Sperry, James van Cleve and Jaegwon Kim. (b) From a conceptual approach, Stephan discusses the main topics at stake today, and on the whole analyzes «classical» emergentism into four versions, according to the different concepts of emergence. Namely: 1) emergence as nonadditivity, 2) emergence as novelty, 3) emergence as nonpredictability, 4) emergence as nondeducibility. The first one corresponds to the formulation developed by John Stuart Mill and George Henry Lewes; the second one to Lloyd Morgan's and Alexander's interpretation; the third to Popper's view, while the fourth especially to C.D. Broad but also to C.G. Hempel and P. Oppenheim. Cf. A. Stephan, *Emergence – A Systematic View on its Historical Facets*, in A. Beckermann, H. Flohr, J. Kim (eds.), *Emergence or Reduction? Essays on the Prospects of Nonreductive Physicalism*, cit., pp. 25-48.

¹⁹ Ivi, p. 30.

²⁰ Although Alexander's *Space, Time and Deity* was delivered as Gifford Lectures in 1915-16, six years before Lloyd Morgan's *Emergent Evolution*, the concept had already been sustained by the latter. As Alexander states: «I use the word 'emergent' after the example of Mr. Lloyd Morgan. It serves to mark the novelty which mind possesses, while mind still remains equivalent to a certain neural constellation»; STD II: 14n.

²¹ C. Lloyd Morgan, *Emergent Evolution*, cit., p. 1 [Italics mine].

²² In his very precious and detailed work, David Blitz defines the three main claims of Emergentism as follows: «Emergent evolution combines three separate but related claims, whose background, origin, and development I trace in this work: firstly, that evolution is a universal process of change, one which is productive of qualitative novelties; secondly, that qualitative novelty is the emergence in a system of a property not possessed by any of its parts; and thirdly, that reality can be analyzed into levels, each consisting of systems characterized by significant

and unique scientific explanation of «all natural events»; an explanation which renders in an appropriate way the events in their changing and at the same time gives a consistent explanatory hypothesis of their sequence. This reference to a unique scientific explanation reveals the special appeal that evolution had for Lloyd Morgan and the other British Emergentists, at least Alexander. Indeed, the concept of evolution is conceived as that methodological perspective, which alone can open up and provide a feasible path to reach both a coherent cosmology and a comprehensive scientific account of events' changes and dynamics²³. In this sense, *evolution* can also be regarded as a heuristic principle for both scientific and philosophical thoughts, because – accordingly to a naturalistic point of view – by means of it everything can be susceptible of adequate treatment.

Moreover, without this evolutionary perspective, the layered reality would be misunderstood, as the levels might be considered mere, different self-contained strata, under a conception which consequently would lead to the unattainability and unworkability of the concept of emergence itself²⁴.

In addition to the methodological issue, another point is to be made. The notion of evolution refers to the continuity and indivisibility of the global process of change which permeates reality. In a sense, evolution implies necessarily novelty, as it brings about unceasing changes. However, British emergentism distinguishes between novelty and evolution in order to give relevance to the irreducible, unpredictable and discontinuous character of the incoming of new species and levels of reality. Evolution does not provide *per se* an explanation for discontinuity and unpredictability of phenomena, as much as it does for changes and continuity.

(b) Thus, the second key-notion of British Emergentism, according to Lloyd Morgan is, by no surprise, *the incoming of the new*. It refers to that «appearing to the present, from time to time, of something genuinely new». There is a close relation between it and evolution: if evolution allows us to understand and explain the sequence of events, then «newness» is not an exception, but rather something

emergent properties»; D. Blitz, *Emergent Evolution*, Kluwer Academic Publisher, Dordrecht/Boston/London 1992, p. 1. Although it is undeniable that these three can be regarded as the most general features of emergent evolution, it seems to me that, in order to make the rise of Emergentism itself understandable, we need to think of it as committed to the tasks of evolution and novelty. Accordingly – as I point out later – layered reality turns out to be a consequence of addressing these topics (that is, of evolution and novelty together), *via* emergence.

²³ As the author himself stresses in his autobiography: «Evolution, from the scientific point of view, is progressive organization, 'this' in *C* co-related with 'that' in *B*. To distinguish a special feature of organized advance, alike in *B* in *C*, I have of late borrowed from G.H. Lewes the word 'emergent'. But the notion it embodies is quite old. Briefly stated, the hypothesis is that when certain items of 'stuff', say *o p q*, enter into some relational organization *R* in unity of 'substance', the whole *R* (*o p q*) has some 'properties' which could not be deduced from prior knowledge of the properties of *o*, *p*, and *q* taken severally. So far, the advance is relatively step-like or 'jumpy'; cf. C. Lloyd Morgan, in C. Murchison, *History of Psychology in Autobiography*, vol. 2, Clark University Press, Worcester, p. 253.

²⁴ With regard to evolution, we can see Emergentism as a point to which many different influences converge. Let us mention first of all C. Darwin, Huxley, Spencer, Wallace and Romanes. For an analytical description, cf. D. Blitz, *Emergent Evolution*, cit., pp. 5-56. About layered reality, we can here also lay stress on the influence of Walter T. Marvin's thought.

that comes along with it²⁵. According to Lloyd Morgan, evolution and novelty are not two distinct, opposite processes; rather, they represent different aspects of a single process in all its complexity. In particular, *evolution* indicates a sequence which expands and increases itself, and *novelty* indicates the irreducibility and unpredictability of elements appearing in the course of evolution. As we can read in *Emergent Evolution*: «If nothing new emerge[s] – if there be only regrouping of pre-existing events *and nothing more* – then there is no emergent evolution»²⁶. According to British Emergentism, evolution requires novelty to be an *emergent evolution*. Without novelty, evolution would be a mere development of pre-existing patterns. The attention to the issue of novelty is neither present in Darwin’s account of evolution, nor in the general common understanding of evolutionary philosophy. But, in addition to this clarification of the concept of evolution, why is novelty taken into such a careful consideration? Can we see it as a proper philosophical issue?

To address these questions, we need to widen our analysis of British Emergentism. In particular, we should take advantage of the remark Lloyd Morgan made in introducing the general idea of emergent evolution. The author states: «Such emergence of the new is now widely accepted where life and mind are concerned. *It is a doctrine untiringly advocated by Professor Bergson*»²⁷. Apart from the specific instances of emergence in terms of life and mind, for now it is remarkable to notice the reference to Bergson, along with «is now widely accepted». This hint precisely connects the topic of novelty to *Creative Evolution* and more broadly to Bergson’s thought. In this way, Lloyd Morgan maintains on the one hand that his understanding of evolution is close to Bergson’s viewpoint, and on the other that the topic of novelty itself can be grasped as part of his legacy. For instance, in *The Possible and the Real* Bergson describes it as follows:

I should like to come back to a subject on which I have already spoken, the continuous creation of unforeseeable novelty which seems to be going on in the universe. As far as I am concerned, I feel I am experiencing it constantly. No matter how I try to imagine in detail what is going to happen to me, still how inadequate, how abstract and stilted is the thing I have imagined in comparison to what actually happens! The realization brings along with it an unforeseeable nothing which changes everything²⁸.

²⁵ Also Blitz makes a point close to this current claim, when he states: «the development of emergent evolution involved the combination of two ideas: the first held that evolution was a general phenomena, sweeping through all domains of nature, while the second stated that at specific points of development, new levels of organization appeared, featuring novel qualities»; Ivi, p. 76.

²⁶ C. Lloyd Morgan, *Emergent evolution*, cit., pp. 1-2.

²⁷ Ivi, p. 3. Lloyd Morgan, whose interests are particularly physiological, then adds: «Wundt pressed its acceptance under his “principle of creative resultants” (*i.e.* what we distinguish as emergent) which, he says, “attempts to state the facts that in all psychical combinations the product is not a mere sum of the separate elements... but that it represents a new creation” (*Introduction to Psychology*, p. 146)»; Ivi, pp. 3-4 [Italics mine].

²⁸ H. Bergson, *Le possible et le réel* (1920), in *La pensée et le mouvant*, in *Ouvres*, PUF, Paris 1970, p. 1331; tr. by Mabelle L. Andison, *The Possible and the Real*, in *The Creative Mind: an Introduction to Metaphysics*, Dove Publications, Mineola (NY) 2007, p. 73. Despite the fact that it was written later

Of course, this is an «existential» exemplification of what Bergson intends by newness, but by means of it we gain a clear and compelling connotation of it, especially insofar as he indicates it as «an unforeseeable nothing which changes everything». Then, although Bergson was not the only one who undertook this kind of philosophical inquiry (see for example William James's works, in particular *Some Problems of Philosophy*²⁹), he was specifically singled out as the one who first – throughout the history of philosophy – discloses this specific topic of novelty to philosophy. Indeed, the fact that many were dealing with the problem of novelty is another hint that novelty should be considered as a proper and independent issue. In this regard, a further corroboration of Bergson's pivotal role in introducing the topic of «novelty» comes from Schiller's Presidential Address to the Aristotelian Society³⁰ in 1921, entitled *Novelty*:

[...] Nearly all philosophers have assented with such uncritical docility and unthinking enthusiasm, that no place need be made for Novelty in our philosophies, because Novelty is as such ultimately unthinkable and impossible. Perhaps M. Bergson's greatest achievement is to have shaken this prejudice, and to have made Novelty a good philosophic problem. It is no longer mere impertinence to inquire into Novelty, to ask philosophers to recognize its existence, to beg them to analyse why they hate it and won't, and to insist that, whether they hate it or not, they have got to have it. [...] Since Novelty is ineluctable and we are all so constructed as to experience it, and the world is continually generating it, it may be more reasonable, or at least more sensible, to try to understand it than to try to ignore it³¹.

If now it is more apparent how much the topic of novelty was considered, shared and debated, and how important Bergson was in this inquiry; the British Emergentism's endeavor to think at once evolution and novelty should be more comprehensible. In this perspective, and not without some exaggeration, Rudolph Metz states in 1934 that «Emergent Evolution is a new, important, and specifically

than some of Lloyd Morgan's and Alexander's books, I decide to quote this passage because it illustrates the concept of novelty in a very neat and brief way. At the same time, it is important also to notice that, in comparison to this text of Bergson, British Emergentism differs since novelty is not an «all-pervasive quality», but is introduced into the world where emergences take place, that is, just in the passages between layers.

²⁹ W. James, *Some Problems of Philosophy*, Longmans–Green and Co., New York 1911. William James devotes the last five chapters to the topic of novelty. In this perspective, apparent is the close relationship between Bergson and James, to the extent that James stated in many places that he conceived their works as different expressions of the same stream of thought. Cf. W. James, *Essays in Radical Empiricism*, Longmans-Green and Co., New York 1912, p. 156. Moreover, also S. Alexander refers to his definition of novelty in SPD II: 323-24.

³⁰ It is meaningful that, amongst others, also Alexander, Lloyd Morgan, Broad, and Whitehead were members of the Aristotelian Society, and they were respectively presidents in 1908-1911 and 1936-37, 1926-1927, 1927-1928, 1922-1923.

³¹ F.C.S. Schiller, *Novelty, The Presidential Address*, «Proceedings of the Aristotelian Society», New Series, 22, 1921-22, pp. 1-2.

British variation of Bergson's creative evolution»³². Indeed, it cannot be considered a simple «variation» of Bergson's creative evolution since, from *élan vital* onward, their contents are very different; but that comparison can be accepted as far as British Emergentism thought novelty and evolution together, as Bergson did in a different way in his *Creative Evolution*³³.

After this exploration of both evolution and novelty, we can understand why their idea of emergence lies at the very bottom of this conjunction, or – better yet – why it stems from their joining. From another perspective, emergence represents the critical point in which progress and continuity find their conjunction. 'Emergence' provides the opportunity to conceive novelty without appealing to any external force: every *new* level is at the same time in continuity with and entirely grounded in the previous one. Also, another way of conveying how novelty accompanies evolution is to consider how Lloyd Morgan describes the relation between emergence and resultants. As he explains, in terms of these last two concepts:

Resultants give quantitative continuity which underlies new constitutive steps in emergence. And the emergent step, though it may seem more or less saltatory, is best regarded as a *qualitative change of direction, or critical turning-point*, in the course of events. In that sense there is not the discontinuous break of a gap or a hiatus. It may be said, then, that through resultants there is continuity in progress; through emergence there is progress in continuity³⁴.

Thus, resultants provide a quantitative continuity among events, and emergence does not breach this quantitative continuity, but rather represents the «critical turning-point» of every qualitative phase of that continuity: it is a step which indicates a «qualitative change of direction» that occurs every time there is evidence of progress and change in continuity itself. Therefore, this perspective offers a unique explanatory model both for evolution and novelty, continuity and discontinuity, and it reaches its most telling point when it applies «emergence» to life and, especially, to mind.

2. Alexander's Emergentism and Whitehead's Philosophy of Organism

Granted this general emergentist framework, and the main issues involved in its discussion, it is possible now to focus on the difference between Samuel Alexander and Alfred North Whitehead. Indeed, since their emergentist accounts of subjectivity, and their usage of «emergence», are rooted in the diversification of their

³² R. Metz, *A Hundred Years of British Philosophy*, cit., p. 656. To stress the same point, he says in the page just cited: «But it was through Bergson's idea of creative evolution that the doctrine of novelty became widely known and made its way into England, where, by a similar reaction against the mechanistic evolution-theory, Alexander and Morgan became its most influential champions».

³³ Cf. H. Bergson, *L'évolution créatrice*, Presses Universitaires Française, Paris 1907.

³⁴ C. Lloyd Morgan, *Emergent Evolution*, cit., p. 5 [italics mine].

metaphysical and cosmological thoughts, this second section is devoted to the comparison of their general metaphysical assumptions.

From an emergentist perspective, we have already introduced Samuel Alexander (1859-1938), the Australian-born philosopher who lived and taught in Manchester, who is considered, together with Lloyd Morgan, as the founder of British Emergentism. To the contrary, hitherto no attention has been paid to Alfred North Whitehead (1861-1947), the mathematician and philosopher who lived until 1924 in England, and spent the rest of his life in Cambridge, Massachusetts. With regard to the studies on emergentism, Whitehead is often mentioned in general accounts³⁵. Nevertheless, he doesn't usually receive a careful examination, due to his conceptual originality and metaphysical complexity. Moreover, it is interesting to notice that, although in both Alexander's and Whitehead's works there are mutual references, so little research has been done on their relationship, by their respective scholars³⁶.

For these reasons, it is useful to divide their comparison into three parts: in the first I briefly touch on their philosophical connection from a historical and intertextual viewpoint; in the second I give an outline of Alexander's emergentism and in the third I introduce Whitehead's processual and organicistic thought.

(i) As I have just mentioned, their mutual esteem and «appreciation»³⁷ are documented and plainly stated. Both Alexander and Whitehead were members of the Aristotelian Society in the same period, and this fact is remarkable insofar as Whitehead himself states, in his *Autobiographical Notes*, that his «philosophic writings started in London, at the latter end of the war. The London Aristotelian Society was a pleasant centre of discussion, and close friendships were formed»³⁸. Moreover, they referred to each other's works with great recognition. On the one hand, as Dorothy Emmett reports, Alexander came so far as to write in a letter to Emmett: «I read Whitehead naturally not only to understand him but to save my own soul. I think of myself only as having done what Burke said he did for [Dr.

³⁵ For example, consider what McLaughlin states in a footnote, after mentioning that Whitehead «defended a brand of emergentism»: «While British and an emergentist, I have not counted him as a British Emergentist since his views differs in certain ways I cannot discuss here from the views of the authors mentioned above»; B. McLaughlin, *The Rise and Fall of British Emergentism*, cit., p. 57.

³⁶ Notable exceptions to this trend are D. Emmett's *Whitehead and Alexander*, «Process Studies» 21, 3, Fall 1992, pp. 137-148; V. Lowe's *Alfred North Whitehead: The Man and His Work, Vol. II (1910-1947)*, John Hopkins University Press, Baltimore 1990, especially pp. 173-177; V. Lowe, *The Influence of Bergson, James and Alexander on Whitehead*, «Journal of History of Ideas» X, 2, 1949, pp. 267-296; G.R. Lucas, *Evolutionist Theories and Whitehead's Philosophy*, «Process Studies» 14, 4, Winter 1985, pp. 287-300. Moreover, Lowe's dissertation also concerns in part this comparison. Cf. V. Lowe, *Concepts of Nature in the Philosophical Systems of Whitehead, Russell and Alexander*, PhD. Dissertation, Harvard University, Cambridge 1935. With this regard, a special thank to Steve Hubert and the Center for Process Studies (Claremont, CA), for helping me find the main resources.

³⁷ D. Emmett, *Whitehead and Alexander*, cit., p. 137. The author suggests that would be more appropriate to speak of appreciation than influence, because they never explicitly discussed the works of each other.

³⁸ A.N. Whitehead, *Autobiographical Notes*, in P.A. Schilpp, *The Philosophy of Alfred North Whitehead*, The Library of Living Philosophy: vol. III, Tudor Pub. Co., New York 1951, p. 13.

Samuel] Johnson in conversation – “rung the bell for him”³⁹. On the other hand, Whitehead speaks of him as «the philosopher of this time from whom he got most»⁴⁰. Far from using the above mentioned elements to push for any strong influence of Alexander’s thought upon Whitehead, I just want to maintain that for their proximity, their mutual consideration and their own acknowledgement of affinities in both metaphysics and philosophical methods⁴¹, they can not only be compared, but that their comparison is even urgent, if we consider that they both

³⁹ D. Emmett, *Whitehead and Alexander*, cit., p. 137. In many passages Alexander quotes and compares his view to Whitehead’s one, especially on the topic of time. See for example S. Alexander, *Some Explanations*, «Mind» XXX (Oct. 1921), pp. 415-417; *Spinoza and Time*, George Allen & Unwin Ltd., London 1921, p. 16; *Artistic Creation and Cosmic Creation*, Humphrey Milford, London 1927, p. 17 and his personal review of *Science and the Modern World*, «Nature» 117, June 19, 1926, pp. 847-850.

⁴⁰ V. Lowe, *Alfred North Whitehead: The Man and His Work, Vol. II (1910-1947)*, cit., p. 173. The author refers to a conversation he had with Whitehead in August 1942. Apart from the two letters written by Whitehead to Alexander (kept at the University of Manchester as ALEX/A/1/1/307/1 and ALEX/A/1/1/307/2), Whitehead quoted Alexander with the following words, in the *Preface of Science and the Modern World*: «There has been no occasion in the text to make detailed reference to Lloyd Morgan’s *Emergent Evolution* or to Alexander’s *Space, Time and Deity*. It will be obvious to readers that I have found them very suggestive. I am especially indebted to Alexander’s great work. The wide scope of the present book makes it impossible to acknowledge in detail the various sources of information or of ideas. The book is the product of thought and reading in past years, which were not undertaken with any anticipation of utilisation for the present purpose. Accordingly it would now be impossible for me to give reference to my sources for details, even if it were desirable so to do»; A.N. Whitehead, *Science and the Modern World*, Cambridge University Press, Cambridge 1925, p. ix (from now onward indicated as SMW). With this regard, it seems to be more methodologically correct, at least as a starting point, to consider these words as a real appreciation and a deep consideration of these authors’ works, rather than a mere gratuitous reference. For instance, as Lowe illustrated, Whitehead’s own copy of *Space, Time and Deity* was intensely marked and annotated. Lowe states: «The checkmarks, scorings, and detailed comments in Whitehead’s copy of *Space, Time and Deity*, which he read in 1924, show that he liked many of the points Alexander made and the purport of most of the work, while the question marks that Whitehead scrawled in the margins show in what respects Alexander failed to convince him or was not definite enough»; V. Lowe, *Alfred North Whitehead: The Man and His Work, Vol. II (1910-1947)*, cit., p. 174. Also, some of the pivotal concepts in *Process and Reality* are certainly forged in the light of Alexander’s previous reflection. Cf. not only A.N. Whitehead, *Process and Reality*, Macmillan, New York 1929 (Corrected Edition by D.R. Griffin and D.W. Sherburne, Free Press, New York 1979), p. 28, 41 (from now on PR), but also – for example – the crucial concept of *togetherness*, which was first introduced and employed by Alexander in S. Alexander, *The Method of Metaphysics; and the Categories*, «Mind» 21 (81, Jan 1912), p. 2. Overall, as Whitehead states in *Modes of Thought*, he reads and interprets Alexander’s masterpiece in terms of his own work: «The title of one outstanding philosophic treatise in the English language, belonging to the generalization now passing, is “Space, Time and Deity”. By this phrase, Samuel Alexander places before us the problem which haunts the serious thought of mankind. “Time” refers to the transitions of process, “space” refers to the static necessity of each form of interwoven existence, and “deity” expresses the lure of the ideal which is the potentiality beyond immediate fact»; A.N. Whitehead, *Modes of Thought*, Macmillan, New York 1938, p. 101 (from now on MT).

⁴¹ Cf. V. Lowe, *Alfred North Whitehead: The Man and His Work, Vol. II (1910-1947)*, cit., pp. 173-174: «He [Whitehead] gave me no details, saying only that he and Alexander “conceived the problem of metaphysics in the same way”, that is, as reconciliation of the unity of the universe (emphasized in Spinoza’s metaphysics) and the multitude of individuals (emphasized by Leibniz)». See also S. Alexander, *Some Explanations*, cit., p. 423.

come to give an emergentist account of subjectivity. Therefore, and also for their amply different cosmologies, it is required to give first a rough sketch of their own cosmological «descriptive generalizations» (PR: 10), and then turn to their concepts of subjectivity, which certainly depend on their preliminary «general schemes»⁴².

(ii) On the whole, as Emmett suggests, the main difference between Whitehead's and Alexander's perspectives is that the former's ontology is made up of events, and Space and Time are conceived as a possible description of events' relationship, while for the latter Space-Time has an absolute *status*, since it is to be understood as the «stuff»⁴³ which composes everything. From another perspective, we might say that Alexander has a strictly emergentist cosmology, while Whitehead's attitude is more a processual, organicistic one.

As we already pointed out in the previous section, Alexander's concept of reality is a layered one, and – as we can grasp from the brief outline – at the very bottom of its structure we find Space-Time. Indeed, according to Alexander, by reason of the properties empirically possessed by space and time, they require each other, so far as to say that «Time is the mind of Space and Space is the body of Time» (STD II: 38)⁴⁴. He states:

Time makes Space a continuum by securing its divisibility, and Space makes Time a continuum by securing the connection of its parts. Time is thus intrinsically spatial and Space temporal. There are no points or instants, but only, in fact, point-instants, or pure events. Every point has its date, without which it would not be a point, and every instant its place, without which it would not be an instant. The real parts into which Space-Time is resolved are thus motions, for any motion through a space is the change of dates of the points in that space⁴⁵.

Thus, Space-Time breaks up in such finite motions, and – because of time – this basic and fundamental level of motions develops into the different levels of existence. From Alexander's perspective, from motions emerges: (1) matter conceived as physical (that is with primary qualities), (2) matter with secondary qualities, (3) life, (4) mind and finally (5) deity, which unlike the others is infinite. To sum up, the whole process can be described as follows:

[...] The world actually or historically develops from its first or elementary condition of Space-Time, which possesses no quality except what we agreed to call the spatio-temporal quality of motion. But as in the course of Time new complexity of motions comes into existence, a new quality

⁴² Cf. PR: 3.

⁴³ D. Emmett, *Whitehead and Alexander*, cit., p. 139. For a critical account of their cosmologies and concepts of nature cf. R.G. Collingwood, *The Idea of Nature*, Oxford University Press, New York 1945, pp. 158-177.

⁴⁴ This point will be better developed in the third part of the present work.

⁴⁵ S. Alexander, *Space-Time*, «Proceedings of the Aristotelian Society», 18, 1917-1918, pp. 411-412.

emerges, that is, a new complex possesses as a matter of observed empirical fact a new or emergent quality. [...] The emergence of a new quality from any level of existence means that at that level there comes into being a certain constellation or collocation of the motions belonging to that level, and possessing the quality appropriate to it, and this collocation possesses a new quality distinctive of the higher complex. The quality and the constellation to which it belongs are at once new and expressible without residue in terms of the processes proper to the level from which they emerge [...] (STD II: 45-46).

(iii) In contrast, the Whiteheadian cosmological account is not a merely layered one⁴⁶. He describes all reality, and every entity which composes it, in terms of *organism* and *process*. Given the present article's purposes, let us approach what he means by organism and process, by considering them as Whitehead's own attempts to address the same issues – as we have seen in the previous section – lying at the very bottom of British emergentism: evolution and novelty.

(a) Concerning evolution, Whitehead certainly doesn't elaborate any specific evolutionistic theory, that is any explanatory model from a strict biological perspective, but that doesn't prevent his philosophy and cosmology from including and encompassing evolution and its claims⁴⁷. Accordingly, he plainly states that «evolution fits into his metaphysical standpoint»⁴⁸. Moreover, as he suggests in *Science and the Modern World*, «the whole point of the modern doctrine [of evolution] is the evolution of the complex organisms from antecedent states of less complex organisms. The doctrine thus cries aloud for a conception of organism as fundamental for nature» (SMW: 110)⁴⁹. In other words, according to Whitehead and his understanding of evolution, evolutionary thought itself requires a new radical concept of organism, at once deeper and more ultimate than the one involved in biological debates. Consequently, *organism* should not be recognized as a specific object of a restricted field of inquiry, but as the basic structure of experience, so that

⁴⁶ As he states in *The Order of Nature* (PR: 83-109), there is a «hierarchy of societies composing our present epoch» (PR: 96), and in this sense he affirms a layered conception of reality too. But the difference in respect to Alexander's view is the way he conceives the inter-relations and inter-connections among the various societies themselves. From this perspective, they are not merely progressive and linear layers, but rather are parts of the wider *processual* movement of the universe.

⁴⁷ About the controversy on the present topic, I especially refer to G.R. Lucas, *Evolutionist Theories and Whitehead's Philosophy*, cit.. Although the hypothesis to which I am committed is diametrically opposite to his, I want to specify that to give an evolutionary account of Whitehead's process philosophy does not mean either to reduce it to evolutionary theories or cosmologies, or to depose his thought of its philosophical originality and uniqueness. Rather, to follow Whitehead's own words means just to recognize how his organic thought also takes this problem and offers to its regard a very promising and radical answer.

⁴⁸ Cf. V. Lowe, *Alfred North Whitehead: The Man and His Work, Vol. II (1910-1947)*, cit., p. 300. On December 10, 1924, Whitehead wrote to his son North: «I gave my first lecture today, driving there and back. I celebrated the occasion by a general lecture to my class on Evolution and how it fitted into my metaphysical standpoint».

⁴⁹ Conversely, as he states, «a thoroughgoing organic theory of nature enables us to understand the chief requisites of the doctrine of evolution» (SMW: 109).

every category of thought (from physics to metaphysics) should be grounded in it. Otherwise – in a materialistic approach – we would reduce evolution to «being another word for the description of the changes of the external relations between portions of matter» (SMW: 109)⁵⁰. Indeed, for Whitehead, materialistic theories assume *some material* which endures, while the organic theory assumes that *organisms* endure, and such organisms are no longer conceived as matter; they are «structures of activity, and the structures are evolved» (SMW: 110). Therefore, organisms are what constitutes reality and enables us to conceive evolution to its root. Furthermore, *organism* at once refers to this specific structure of activity and to the whole universe in development. As Whitehead says:

[...] ‘organism’ has two meanings, interconnected but intellectually inseparable, namely the microscopic meaning and the macroscopic meaning. The microscopic meaning is concerned with the formal constitution of an actual occasion, considered as a process of realizing an individual unity of experience. The macroscopic meaning is concerned with the givenness of the actual world, considered as the stubborn fact which at once limits and provides opportunity for the actual occasion (PR: 128-129).

Here, again, we can easily see how far Whitehead is from speaking of organism just as a mere biological element. ‘Organism’ illustrates both the structure of every actual occasion, which is the minimal (experiential) part of the universe, and the actual world, conceived as the stubborn fact of every actual occasion. Particularly, from a microscopic point of view *organism* is described as «the process of realizing an individual unity of experience». Thus, this concept of organism involves the other crucial notion: *process*, which also helps understand Whitehead’s account of evolution. On the one hand, *process* points out that evolution can never be grasped as a linear sequence of development; on the other, it denotes that activity and dynamics belong to every factor of the universe (and every fact of experience), so much that we cannot understand any of those elements apart from their processual structure and their connections with all the others⁵¹. According to

⁵⁰ Another relevant criticism of Whitehead’s, about evolutionary theories, is contained in *The Function of Reason*, where he explains what he calls «the evolutionist fallacy». He says: «[...] I must at once join issue with the evolutionist fallacy suggested by the phrase “the survival of the fittest”. The fallacy does not consist in believing that in the struggle for existence the fittest to survive eliminate the less fit. The fact is obvious and stares us in the face. The fallacy is the belief that fitness for survival is identical with the best exemplification of the Art of Life. In fact life itself is comparatively deficient in survival value. The art of persistence is to be dead. Only inorganic things persist for great lengths of time. [...] The problem set by the doctrine of evolution is to explain how complex organisms with such deficient survival power ever evolved. They certainly did not appear because they were better at that game than the rocks around them. [...] Why has the trend of evolution been upwards? The fact that organic species have been produced from inorganic distributions of matter, and the fact that in the lapse of time organic species of higher and higher types have evolved are not in the least explained by any doctrine of adaptation to the environment, or of struggle»: A.N.W., *The Function of Reason*, Princeton University Press, Princeton 1929, pp. 2, 4.

⁵¹ Cf. SMW: 95. Whitehead puts in: «One all-pervasive fact, inherent in the very character of what is real is the transition of things, the passage one to another. This passage is not a mere linear

Whitehead, it is precisely the prominence and inevitability of *process* which make it a «fundamental fact in our experience» and an «inexorable fact» (MT: 52-53) in the universe⁵². In other words:

Every essence of real actuality – that is, of the completely real – is *process*. Thus each actual thing is only to be understood in terms of its becoming and perishing. There is no halt in which the actuality is just its static self, accidentally played upon by qualifications derived from the shift of circumstances⁵³.

(b) Intrinsically related to the notions of organism and process is the concept of novelty. Apart from it, both organism and process would be completely misunderstood, in so far as every process is described by Whitehead as a «creative process» (PR: 80). Indeed, organisms and processes express neither mere developments of previous phases, nor the fixed unfolding of paths towards predetermined aims. That is, the process is creative because it brings about something new, something which didn't exist before it, but even more because process is creative in itself, new: at every step of its becoming it is re-determining itself into a new configuration; it is re-delineating its direction toward a new aim.

procession of discrete entities. However we fix a determinate entity, there is always a narrower determination of something which is presupposed in our first choice. Also there is always a wider determination into which our first choice fades by transition beyond itself».

⁵² Cf. MT: 52-53. «We are in the present; the present is always shifting; it is derived from the past; it is shaping the future; it is passing into the future. This is process». Also, it is to note that for Whitehead this concept of *process* allows to get rid of the misused couple of substance-quality. The author states: «The result is that the “substance-quality” concept is avoided; and that morphological description is replaced by description of dynamic process»; PR: 7.

⁵³ A.N. Whitehead *Adventures of Ideas*, The Free Press, New York 1933, p. 274. (From now onwards AI). Becoming and perishing also introduce another set of terms: concrescence and transition, which Whitehead identifies as the two main kinds of process, in a sense complementary to one another and both involved in every actual entity's process. Cf. in particular PR: 208-210. The author explains: «The group of seventeenth- and eighteenth- century philosophers practically made a discovery, which, although it lies on the surface of their writings, they only half-realized. The discovery is that there are two kinds of fluency. One kind is the *concrescence* which, in Locke's language, is “the real internal constitution of a particular existent”. The other kind is the *transition* from particular existent to particular existent. This transition, again in Locke's language, is the “perpetually perishing” [...]»; PR: 210. Elsewhere, Whitehead states that «the comprehension of this notion requires an analysis of the interweaving of data, form, transition, and issue. There is a rhythm of process whereby creation produces natural pulsation, each pulsation forming a natural unit of historical fact. In this way, amid the infinitude of the connected universe, we can discern vaguely finite units of fact. If process be fundamental to actuality, then each ultimate individual fact must be describable as process»; MT: 88. With regard to the difference between transition and concrescence cf. also L.S. Ford, *The Emergence of Whitehead Metaphysics. 1925-1929*, SUNY Press, Albany 1984, p. 152; J.L. Nobo, *The Principle of Process*, «Process Studies», 4, 4, Winter 1974, pp. 275-278 and J.L. Nobo, *A Creative Process Distinct from Concrescence*, «International Philosophical Quarterly», 19, 3, September 1979, pp. 265-283; J.W. Lango, *Towards Clarifying Whitehead's Theory of Concrescence*, «Transaction of the Charles S. Peirce Society», 7, 3, Summer 1971, pp. 150-167. About Whitehead's conception of process see also Ch. 5 of *Modes of Thought*, entitled *Forms of Process*; MT: 86-104.

Indeed, according to Whitehead «process is the becoming of experience» (PR: 166) and «experience» here refers to an «experiencing subject». As he states: «the process is nothing else than the experiencing subject itself» (PR: 16). Moreover, as this process is nothing else than the experiencing subject, the experiencing subject is nothing else than its becoming itself. This is exactly the content of Whitehead's *principle of process*: «That *how* an actual entity *becomes* constitutes *what* that actual entity *is* [...]. Its “being” is constituted by its “becoming”. This is the principle of process» (PR: 23). Process corresponds to the experiencing subject and the *becoming* of this experiencing subject (i.e. its process), is exactly what constitutes its *being*. In other words, this experiencing subject is at once its process and a «process *creative* of its subject» (PR: 27)⁵⁴, that is the creative process of himself – a self-creative process. From this perspective, the world is to be considered as «self-creative; and the actual entity as self-creating creature» (PR: 85). In this sense, novelty cannot be separated from process: process's creative character enables us to speak of novelty. Accordingly, for Whitehead creativity represents the principle of novelty. He asserts:

Creativity is the principle of *novelty*. An actual occasion is a novel entity diverse from any entity in the “many” which it unifies. Thus “creativity” introduces novelty into the content of the many, which are the universe disjunctively. The “creative advance” is the application of this ultimate principle of creativity to each novel situation which it originates (PR: 21).

This definition of creativity is not only useful to clarify what Whitehead means by it, but it is also crucial to understand his entire philosophy of organism. Indeed, the concept of creativity stands for the «ultimate» of his thought. Generally speaking, by «ultimate» Whitehead refers to a unique element, which on the one hand is necessarily implied in every philosophical theory, and on the other is testified and exemplified by every part of it. He says: «In all philosophic theory there is an ultimate which is actual in virtue of its accidents. It is only then capable of characterization through its accidental embodiments, and apart from these accidents is devoid of actuality» (PR: 7).

After this concise survey of Whitehead's metaphysics, we can now easily see how his most central notions – organism and process, through creativity – can be considered as an answer to the issues of evolution and novelty. Consequently, we can now tackle how subjectivity is conceived within this metaphysical framework, that is as an emergent subjectivity.

⁵⁴ [Italics mine]. As Whitehead puts forth in *Modes of Thought*: «Process for its intelligibility involves the notion of a creative activity belonging to the very essence of each occasion. It is the process of eliciting into actual being factors in the universe which antecedently to that process exist only in the mode of unrealized potentialities. The process of self-creation is the transformation of the potential into the actual, and the fact of such transformation includes the immediacy of self-enjoyment»; MT: 93.

3. A Niche for Subjectivity⁵⁵: Emergent Mind and Superject

Given Alexander's and Whitehead's common claims and divergent metaphysics, what are their consequent concepts of subjectivity? What do they mean for emergent subjectivity? And how their ideas can help us in a renewed and deeper understanding of subjectivity?

For the two of them subjectivity emerges from some previous elements that precede it⁵⁶. Nonetheless, the way in which they conceive subjectivity and its emergence shows some remarkable differences.

According to Alexander's thought, we had better speak of mind, rather than subjectivity, because mind is what characterizes that specific level of (human) being, which emerges from the previous layer of life. In other words, the first character of subjectivity is identified with mind, as it has been often sustained by the philosophical tradition⁵⁷. Alexander introduces his concept of mind as follows:

The plants lives, grows, and breathes, and twines around a stick. The material body resists, or falls, or sounds when struck, or emits light when touched by the sun. The mind knows. Mind is for us the highest order of finite empirical existent (STD II: 81).

Thus, mind is denoted by its power of knowing, and must be understood as «the substantial continuum of certain processes which have the conscious quality» (STD II: 81). Accordingly, mind is that level in which processes turn to be conscious, and it represents exactly their «substantial continuum». Therefore, if the meaning of subjectivity, in terms of mind, is not far from the traditional metaphysical point of view, the originality of his conception lies in the relation of the mind-level with the previous ones. On the one hand, mind is the *substantial* continuum⁵⁸ of conscious processes; on the other, it is that specific *quality* emerging out of the layer of life. Indeed, the quality of mind is «an emergent from the stage of living existence with its distinctive quality of life. Mind as a thing is a living being with the mental quality of consciousness» (STD II: 61). More specifically, in order to understand how mind emerges, we should consider its connection to the brain. In fact, for Alexander mind and brain are the same process. Conscious processes and neural processes are two different ways of explaining the same thing. He states:

⁵⁵ Cited from Whitehead's lecture, May 2, 1925; included in L.S. Ford, *The Emergence of Whitehead Metaphysics. 1925-1929*, cit., p. 293: «“The creature emerges by virtue of the niche that is there for it in the universe”». Cf. also PR: 211.

⁵⁶ In particular, as we will see in a while, for Whitehead subjectivity emerges from its prehensions and the data that the subject itself «prehends».

⁵⁷ Cf. for instance PR: 36.

⁵⁸ To be notice that for Alexander the category of substance should be applied to every existent element. He says: «All existents, being complexes of space-time, are substances, because any portion of Space is temporal or is the theatre of succession; or what is the same thing because all succession is spread out in space. [...] For simplicity and brevity it will be enough to speak of substance as a piece of Space which is the scene of succession without stating the same thing in terms of Time, in the reverse order. Any existent is a substance in this account of the matter»; STD I: 269.

«they (mind and brain) are not two but one. That which as experienced from the inside or enjoyed is a conscious process, is as experienced from the outside or contemplated a neural one» (STD II: 5). From this perspective, mind is identical to the brain but not reducible to it since the former inaugurates a new way of functioning not understandable in terms of the latter. «While mental process is *also* neural, it is not *merely* neural, and therefore also not merely vital». (SDT II: 6). As we have already explained in the second part, a new configuration of matter (or life, in this case, or more generally of motions) comes to be by virtue of time and with this new configuration emerges a new quality, distinctive of this higher structure. At the same time, although mind cannot be reduced to life, it belongs completely to it. As Alexander puts it: «the complex collocation which has mind, though itself vital, is determined by the order of *its* vital complexity, and is therefore not *merely* vital but *also* vital» (STD II: 46)⁵⁹.

In brief, Alexander's merit can be identified not so much in elaborating a new definition of subjectivity, as in giving a thoroughly new interpretation of it. Subjectivity is mind, with the same characters that many before Alexander ascribed to it, but its explanation doesn't any longer need to go beyond life and nature. At once, mind's difference and identity with nature are maintained.

However, there is one more facet of Alexander's thought about mind that should be considered more closely. As we mentioned beforehand, in explaining time and space he utilizes the expression that «time is mind of space»⁶⁰. As he plainly states, this statement is helpful for two different purposes. First, «according to this formula the world as a whole and each of its parts is built on the model with which we are familiar in ourselves as persons, that is as union of mind and body, and in particular as a union of mind and brain» (STD II: 38-39). Second, by extending the model of mind-body from the lower level to the highest, he wants to make more understandable how every part of the universe is conceivable as a continuous series⁶¹. From this perspective, it could seem that the consideration of time as the mind of space is just a metaphor, useful for the first purpose pointed out. Indeed, it is quite the opposite if we take into consideration what he specifies in regard to the relation between mind and time. The author states:

Rather than hold that Time is a form of mind we must say that *mind is a form of Time*. This second proposition is strictly true. Out of the time-element, as we shall see, the quality mind as well as the lower empirical qualities emerge, and this quality mind belongs to or correspond to the configuration of time which enters into the space-time configuration which

⁵⁹ [First italics mine].

⁶⁰ For a general account on this topic, cf. also D. Emmett, *Time is the Mind of Space*, «Philosophy», 25, 94, Jun. 1950, pp. 225-234.

⁶¹ As he states: «My motive in anticipating the discussion of empirical qualities by the hypothesis that Time performed towards Space the office of mind, was, that by suggesting that something corresponding to mind was present from the beginning at the lowest level of mere motion, I might remove the prejudice against any attempts to exhibit all forms of existence as a continuous series from Space-Time upward through matter to mind»; STD II: 50.

is proper to the level of existence of which mind is found (STD II: 44, *it- alics mine*).

Here, we shall notice the boldness of his remark as well as the limited application of it to Alexander's own explication of mind. Generally speaking, if we are to understand mind in terms of this «principle of unrest»⁶², which time represents, we cannot merely define it as the substance of conscious processes, or the emergent quality from life. Rather, we should interrogate its specific temporality, or – better yet – we should understand it in terms of temporality. In other words, mind does not just *have* its own temporality, but it *is* intrinsically temporal. By following this suggestion, we are led to an even more radical conception of subjectivity. Nonetheless, in Alexander's thought there is a perpetual fluctuation between this priority of time and a set of categories and assumptions which are to some extent uncritically assumed (i.e. the concept of substance as well as the concept of mind itself). In this respect, Whitehead's explanation of subjectivity offers a hypothesis of a further development in the same direction.

On the whole, Whitehead's own concept of subjectivity differs from Alexander's concept of mind for two main reasons. First, according to Whitehead, subjectivity cannot be identified with mind, or conscious processes. Consciousness is indeed just an element of our experience and not any distinctive one, while 'subjectivity' must be applied to all the experiences one might have⁶³. Similarly to William James's theory⁶⁴, Whitehead states: «consciousness presupposes experience, and not experience consciousness. It is a special element in the subjective forms of some feelings. The actual entity may, or may not, be conscious of some part of its experience. Its experience is its complete formal constitution including its consciousness if any» (PR: 53)⁶⁵. Therefore, subjectivity is regarded as an «experiencing subject» (PR: 16), but this subject is nothing apart from its process of experiencing. In other words, subjectivity is for Whitehead an occasion of experience, or actual entity. As the author defines them, «actual entities – also termed actual occasions – are the final real things of which the world is made up»; they are «drops of experience, complex and interdependent» (PR: 18).

Second, as we have already mentioned in explaining the concept of process, subjectivity cannot be grasped as substance, due to its intimate processual

⁶² S. Alexander, *Artistic Creation and Cosmic Creation*, cit., p. 17.

⁶³ At the same time, Whitehead does speak of mind, but with a different meaning. Indeed, according to him on the one hand «mental activity is one of the modes of feeling belonging to all actual entities in some degree» (PR: 56), on the other «mental operations do not necessarily involve consciousness» (PR: 85). In other words, all actual entities have a mind but mind is just a mode of subjectivity and not necessarily its conscious side.

⁶⁴ Cf. W. James, *Does consciousness exist?*, in *Essays in Radical Empiricism*, cit., pp. 1-38.

⁶⁵ As he underlines in *Modes of Thought*: «Human nature has been described in terms of its vivid accidents, and not of its existential essence. The description of its essence must apply to the unborn child, to the baby in its cradle, to the state of sleep, and to that vast background of feeling hardly touched by consciousness. Clear, conscious discrimination is an accident of human existence. It makes us human. But it does not make us exist. It is of the essence of our humanity. But it is an accident of our existence» (MT: 115-116). From this point of view, subjectivity, that is the experience of subjectivity or the experiencing subject, is more than consciousness.

structure. Its being consists of its becoming. Subjectivity is a process of experiencing, is determined as a specific temporal process, or rather, is in itself a process of temporalization, because every process stands for its «creative self-causation» (PR: 222). We can see here again the prominence of the concept of time, not merely emphasized as the real matrix of subjectivity – as it is in Alexander’s thought –, but fully developed as *the* process of subjectivity itself. In this way, to understand subjectivity means to grasp the new temporality which subjectivity continuously inaugurates. As Whitehead maintains: «It 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» (PR: 29).

Connected with this radical understanding of the processual character of subjectivity, is the new Whiteheadian reformulation of subject: no longer subject, rather *superject*. Indeed, according to the author:

The philosophies of substance presuppose a subject which then encounters a datum, and then reacts to the datum. The philosophy of organism presupposes a datum which is met with feelings, and progressively attains the unity of a subject. But with this doctrine ‘superject’ would be a better term than ‘subject’⁶⁶ (PR: 155).

We cannot experience the ‘subject’ as something like a substance, an ὁποκειμενον, unchangeable and identical to itself, which later receives further, additional, characterizations. Every subject is always in its route of self-realization⁶⁷ and apart from the process of its feelings it wouldn’t exist. For this reason ‘subject’ is to be understood as ‘subject-superject’. The superject does not underlie its feelings, but emerges from them. To put it in Whitehead’s words:

The subject-superject is the purpose of the process originating the feelings. The feelings are inseparable from the end at which they aim; and this end

⁶⁶ Regarding the relation subject-object, it is to be noticed that Whitehead does not entirely repudiate it, he simply pinpoints that what the subject/object express is a relation fully emotional, hardly recognized as such by the philosophical traditional thought. Cf. AI: 175: «This deduction presupposes that the subject-object relation is the fundamental structural pattern of experience. I agree with this presupposition, but not in the sense in which subject-object is identified with knower-known. I contend that the notion of mere knowledge is a high abstraction, and that conscious discrimination itself is a variable factor only present in the more elaborate examples of occasions of experience. The basis of experience is emotional. Stated more generally, the basic fact is the rise of an affective tone originating from things whose relevance is given». Moreover, according to Whitehead a «feeling» is a positive «prehension» (cf. PR: 23). About the notion of prehension, Whitehead explains: «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»; SMW: 70.

⁶⁷ Cf. the category of subjective unity. «The first category [that is, the category of subjective unity] has to do with self-realization. Self-realization is the ultimate fact of facts. An actuality is self-realizing, and whatever is self-realizing is an actuality. An actual entity is at once the subject of self-realization, and the superject which is self-realized»; PR: 222.

is the feeler. The feelings aim at the feeler, as their final cause. The feelings are what they are in order that their subject may be what it is. Then, transcendently, since the subject is in virtue of its feelings, it is only by means of its feelings that the subject objectively conditions the creativity transcendent beyond itself (PR: 222).

Accordingly, subjectivity, and its unity, emerges as the superject of its feelings. With this regard, Whitehead properly speaks of emergence, but after his re-configuration of subjectivity in a processual account, his notion of emergence cannot any longer be conceived as an emergent element out of a mere previous level, but is to be grasped as the emergence of subjectivity out of its own process of self-creativity.

Thus, on the one hand, to «take time seriously»⁶⁸ (as Alexander would say) means to conceive subjectivity not as a substance but as a process; on the other, this process implies that the subject-superject is what continuously *emerges* from its feelings. But how can this new conception of emergent subjectivity help us reach a new understanding of subjectivity? If we have already put forth the superject as a radical re-notation of the traditional concept of subject, we have now to clarify its «emergent side», in order to get a thorough understanding of Whitehead's philosophical account of emergent subjectivity. Indeed, and although his concept of emergence differs from Alexander's one, for Whitehead the emergence of subjectivity is one of the key-topics of all his philosophy. He says:

For Kant, the world emerges from the subject; for the philosophy of organism, the subject emerges from the world – a 'superject' rather than a subject. The word 'object' thus means an entity which is a potentiality for being a component in feeling; and the word 'subject' means the entity constituted by the process of feeling, and including this process. The feeler is the unity emergent from its own feelings: and feelings are the details of the process intermediary between this unity and its many data (PR: 88).

The superject emerges from feelings or, more broadly, the subject emerges from the world because every element of the world is «a potentiality for being a component in feeling». In this sense, «the creature emerges by virtue of the niche that is there for it in the universe»⁶⁹: any factor of the world, by becoming a component for feelings, determines in fact the emergence of subjectivity. To some degrees, this niche can be also considered close to Alexander's conception of emergence, where a special configuration makes, «as a matter of fact», mind emerge, but it isn't merely that. The configuration of the universe makes subjectivity emerge because every factor of it is a potentiality for subjectivity's feelings; in other words, because the universe's factors take part of subjectivity, by originating its process. Thus, on the one hand subjectivity emerges from the world because without the world the subjective feelings wouldn't have any components (that is, they wouldn't

⁶⁸ Cf. S. Alexander, *Spinoza and Time*, cit., p. 15.

⁶⁹ Whitehead's class, May 2, 1925. Cf. footnote 55.

exist at all); on the other the world itself, for being such a potentiality for the constitution in subjectivity, can be understood as the «elements disclosed in the analysis of the experiences of subjects» (PR: 166).

Conclusions

According to both Alexander's and Whitehead's emergentist accounts of subjectivity, subjectivity is neither detached from the world, nor transcendental. At the same time, the issue of subjectivity brings to the surface some deep differences among emergentist theories themselves. In Alexander's philosophy, as we have seen, there is a radical interpretation of emergence, as in Whitehead, that leads to reformulating subjectivity in terms of a peculiar kind of temporality, but there is also an interpretation of emergence that still designates subjectivity with the same characters of the metaphysical tradition. According to Alexander, subjectivity emerges only *de jure* from the previous level of life: emergent subjectivity, with its irreducible novelty, is still *de facto* connotated in the way metaphysics has always thought of it. Whitehead, in his turn, not only indicates how subjectivity emerges from the world, but also re-interprets it thoroughly in the light of its constitutive connection to the world. A subjectivity rooted in the world and that actually derives its characters from the world. Subjectivity is no more consciousness, or mind, but rather an experiencing subject, a specific temporality, a superject of feelings, who finds its niche on behalf of the pre-existing elements of the world (the disposition of the universe). The expression «niche for subjectivity» suggests also that an emergent subjectivity cannot be understood by a merely causal model. As I mentioned earlier, according to Whitehead, the world is a *potential* for subjectivity. In his view, a new interpretation of the paradigm of potentiality-actuality allows us to grasp in more depth the specific relation between world and subjectivity, which are, at once, the same and other. Such a conclusion raises some more questions. Does Whitehead's theory move beyond emergentism, or are his ideas the most emergentist at all, if compared to other forms of emergentism? How can we understand emergent subjectivity without borrowing its characters from a classic (dualistic) vocabulary? These provoking questions mark the point reached so far, and open to new, inescapable problems in thinking emergent subjectivity.