

Synchronicity: relations between the Jungian work and new theoretical propositions

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Abstract

Synchronicity is one of the most complex and important concepts of analytical psychology. The present article is a literature review that seeks to present the concept within the classical Jungian view, as an alternative to the causality paradigm, and then to present new contributions from contemporary authors about the theme. Possible dialogues between synchronicity and other areas of knowledge were investigated. It has been verified that there is a current line of thought based on the theory of Complex Adaptive Systems (CASs) that conveys an important change of perspective about the synchronistic phenomenon. In addition, contributions about the notion of time within the synchronicity and the philosoph-

ical basis of Jungian hypothesis are presented as complementary points to the discussion. Synchronicity, in conclusion, is beyond an improbable coincidence: it can represent an important dynamic factor in the self-organization propriety of psyche. ■

Keywords
Synchronicity,
Complexity,
Emergence,
Analytical
psychology.



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1. Introduction

Synchronicity is one of the most complex concepts proposed by Jung in his psychological theory. It is related to the archetypes theory, Self, *unus mundus*, and the comprehension of relations between psyche and material world, mind and matter. The synchronistic phenomenon supports the human psyche's dynamics and reality and its relation to macrocosmic world. It composes the basic notions to the formulation of a Jungian paradigm (PENNA, 2014; STEIN, 2006).

This idea arose from the observation, by Jung, of rare events that represent a significant coincidence for those who live them. The synchronistic event is a **coincidence** because it cannot be explained by causality and does not respect the laws of probability of chance. At the same time, this event has an important **meaning** for the individual. Although it is likely that one or more events of this type occur throughout one's life, synchronistic phenomena can be misunderstood as mere coincidences. Jung's hypothesis affirms their relevance, as it shows that such phenomena are capable of profoundly impacting the individual psyche.

For instance, reporting the beetle episode¹, Jung (2014) emphasized that the synchronistic experience transformed the rational posture of a patient in relation to her problem. It was an important factor to the therapeutic process of the case. In a letter to Jung, this very patient describes intriguing similarities between a dream she had and a story that Jung had read just before a session with her (MOURA, 2014, p. 405).

Another example of an oneiric synchronous phenomenon that has had a major impact on the analytic process, to both therapist and patient,

is offered by Angela Connolly (2015). The author reports a session with a patient named Mary:

Out of the blue, she [Mary] arrived at her session one day saying that she had had a strange dream about my [Connolly's] father. She had dreamt that my father was very ill but that I was not looking after him properly as his room was in complete disorder and she then described the room in great detail. To my intense shock, the room she described was that of my former analyst who had died some years before. The details corresponded exactly, not with the room when I was in analysis, but the room when I had visited him during his final illness. (p. 171)

Situations as the one described by Connolly (2015) are investigated in a research carried out in the United Kingdom by Roxburgh et al. (2016) with therapists. 44% of the participants reported having experienced synchronicity in the therapeutic setting and 67% felt that synchronistic phenomena can be important in psychotherapy. Considering that the analytical work is pointed out as an opening to emergent events of the psyche on organization levels that transcend the ego, the clinical relevance of synchronistic phenomena becomes evident (CAMBRAY, 2020).

Given the theme's dimension, Jung (2014) defines synchronicity in strict and wide senses. As to the **strict sense**, there is an improbable coincidence that conveys significance for the individual. Thus, Jung thought of a non-causal connection between psychic and physical events. Then, the **wide sense** affirms synchronicity would not be restricted to a rare and improbable kind of phenomenon but would be a principle of acausal ordination in nature. The acausal connection of

¹ Complete account of the episode in Jung (2014, par. 843).

events, or synchronicity, is configured as another possibility to understand the relation between two events, as complementary to causality. Thus, going beyond the paradigm of causality is indispensable to the understanding of the Jungian theory and its practice.

Causality rests as an unquestioned concept. A historical and cultural naturalization² of this paradigm was conveyed by the rationalist development of Western science in the last centuries. The pursuit of maximum objectivity in scientific understanding may have resulted in a compartmentalized and disciplinary science, limited in its possibilities. According to Penna (2004), Jung contested dogmatism and affirmed the paradoxical nature of human psyche, approaching it in its complexity.

Hence, knowledge from other areas are important to the synchronicity's idea. The integration of concepts, principally from physics, chemistry and mathematics, permits the widening of its understanding and range. Nowadays, synchronicity stands beyond the limits of the analytical relationship, establishing connections to cultural and collective aspects. Roderick Main (2007), in this context, discusses spiritual and religious aspects of the synchronistic experience; Cambray (2013), on the other hand, affirms that synchronistic phenomena can be collective and assume the proportion of cultural movements or significant moments of change in a society, something that Cambray (2013) called cultural synchronicities.

The objective of this paper is to review the notion of synchronicity in analytical psychology, remarking contemporary contributions that integrate other knowledge areas.

2. Methods

This literature review aims to compose the state of knowledge in order to “[...] map and discuss a certain academic production in different

fields of knowledge”³ (FERREIRA, 2002, p. 258). The sample was intentionally selected (when from the classical literature), complemented by the “snowball” method (applied to post-Jungian literature). This method, proposed by Yin (2016), allowed a certain reference to lead to the exploration of the following, something useful in the search of the most recent publications.

Initially, the classical literature on the subject of synchronicity was consulted, in Jung's *Collected Works* and collaborators considered authors of the classical school of analytical psychology.

Subsequently, the PePSIC, Redalyc and SciELO databases were searched for the term “synchronicity” in the title and/or abstract of Brazilian publications of up to five years ago, extending to thirty years ago, resulting in zero (0) articles. Then, the term “synchronicity” was searched in the title and/or abstracts of publications in national specialized journals, without publication time criteria, resulting in five (5) publications, of which only one (1) presented synchronicity as a central theme.

The international Wiley Online Library database was also searched for the term “synchronicity” in the title of publications since 2015 in the field of psychology (excluding publications from other areas that use the term in a different sense, such as Economics), resulting in eight (8) publications, of which only five (5) refer to synchronicity as proposed by Jung. In order to attain relevant publications referred to in the results of the first search, it was decided to broaden the publication time criteria. Thus, since 2002, forty (40) results were obtained.

3. Results and discussion

The selection of the articles and publications occurred intentionally according to the following criteria: relevant classical literature, approach to other areas of knowledge and enlargement of Jungian thinking.

² For an analysis of the historical process in which causality has become the dominant paradigm in science, see: Capra (1990).

³ Our translation.

27 publications were selected, shown in the board below. Among them, eleven (11) were classified as “classic Jungian” for presenting ideas that explain synchronicity conception developed by Jung in his work and by other authors considered representatives of the “classic school”⁴; eleven (11) publications

offer new propositions on the theme, classified as “post-Jungian”⁵ for their critic and innovative character; finally, four (4) are from authors in other areas of knowledge, classified as theoretical physics.

The selected publications are chronologically ordered below:

Chart 1 - Selected references list by publication year

Year	Author(s)	Knowledge area	Keywords (papers)/Books
1952/2012	Jung, C. G.; Pauli, W.	Classic Jungian	Chap. “Synchronicity: a principle of acausal connections”. In: “The interpretation of nature and psyche”
1952/2014	Jung, C. G.	Classic Jungian	Book: “Sincronicidade” (O.C. 8/3)
1955/2012	Jung, C. G.	Classic Jungian	Chap. VI “A conjunção”: O.C. 14/2
1974	Von Franz, M. L.	Classic Jungian	Book: “Number and time”
1990	Progoff, I.	Classic Jungian	Book: “Jung, sincronicidade e destino humano”
1992	Von Franz, M. L.	Classic Jungian	Chap. XII “A descoberta do <i>unus mundus</i> ”. In: “C. G. Jung: um mito em nossa época”
2001	Hogenson, G.	Post-Jungian	Keywords (paper): Evolutive models
2001	Saunders, P.; Skar, P.	Post-Jungian	Keywords (paper): Archetypes; Self-organization
2002	Cambay, J.	Post-Jungian	Keywords (paper): Emergence; Self-organization
2005	Hogenson, G.	Post-Jungian	Keywords (paper): Emergence; Self-organization
2006	Stein, M.	Classic Jungian	Chap. 9 “Do tempo e eternidade (Sincronicidade)”. In: “O mapa da alma”
2009	Aufranc, A. L. B.	Classic Jungian	Keywords (paper): Quantum physics; Psychoid archetype
2011	Yiassemides, A.	Classic Jungian	Keywords (paper): Time
2012	Atmanspacher, H.	Theoretical physics	Keywords (paper): Dual-aspect monism
2013	Atmanspacher, H.; Fach, W.	Theoretical physics	Keywords (paper): Mind-matter correlations
2013	Cambay, J.	Post-Jungian	Book: “Sincronicidade”
2014	Moura, V.	Classic Jungian	Keywords (paper): Case study; Madeleine Reichstein; Beetle episode

continue

⁴ Division of analytical psychology schools proposed by Samuels (2011).

⁵ Ibid.

continuation

Year	Author(s)	Knowledge area	Keywords (papers)/Books
2014a	Atmanspacher, H.	Theoretical physics	Keywords (paper): Psychophysical relations
2014b	Atmanspacher, H.	Theoretical physics	Keywords (paper): Dual-aspect monism
2015	Connolly, A.	Post-Jungian	Keywords (paper): Synchronicity; Clinical practice
2015	Roxburgh, E. C.; Ridgway, S.; Roe, C. A.	Classic Jungian	Keywords (paper): Meaningful coincidences; Clinical practice
2016	Sacco, R.	Post-Jungian	Keywords (paper): Fibonacci; Fractals
2018	Roesler, C.; Atmanspacher, H.	Post-Jungian	Part V "Synchronicity". In: "Research in analytical psychology"
2019	Cambray, J.	Post-Jungian	Keywords (paper): Syncretism
2019	Kime, P.	Post-Jungian	Keywords (paper): Meaningful coincidence Chap. 9 "Sincronicidade como emergência".
2020	Cambray, J.	Post-Jungian	In: "Psicologia analítica: perspectivas contemporâneas na análise junguiana"

The main ideas of these publications will be presented throughout this text. Sections 1 and 2 refer to the classic fundamental notions of synchronicity and to the new prepositions found, respectively.

4. The Jungian alternative to the causality paradigm

The separation of matter knowledge and the unconscious psyche knowledge began in the 17th century through rationalism. For example, alchemy became chemistry and physics, increasingly objective and concrete, separating themselves from the mythologems and the symbols that formerly permeated nature's knowledge in general. Marie-Louise von Franz (1992), in this context, uses the hermaphrodite symbol to express the fate of alchemy, in the context of its flourishing: a premature union of opposites that needed to be divided into matter science and psyche science, before approaching again.

When studying alchemical material, Jung preferred, initially, to investigate the images symbolic value, understanding its value as expressions of the collective unconscious contents. He did not discuss the issue of a possible bond between psychic, biological and/or microphysic processes, in spite of being convinced of its existence (VON FRANZ, 1992). Although the psyche-matter issue permeates his alchemical studies, Jung approached it directly in other texts, offering contributions based on a critic to materialist reductionism and affirming his choice for a paradigm of greater complexity.

Identifying the two types of human thought, Jung (2013b) illustrates what causal logic reasoning is able to achieve, as well as what escapes it. He describes the directed thinking, based on language, which ultimate expression is rationalist science; it is related to the adaptation of man to his external reality and ability of reflection about subjective issues. The other one is non-directed, non-verbal, associative

thinking, often called dream, which causality and rational logic can hardly grasp.

All in all, Jung conveys important value to non-directed thinking and puts it in the forefront of his method of exploring the unconscious⁶. This emphasis in his propositions led him to approach ideas in a crescent complexity. The utmost challenge to logical thinking is the synchronicity's hypothesis, which stands exactly complementary to directed thinking causality.

The synchronicity essay was one of Jung's (2014) latest publications, result of years of experience and contact with extraordinary phenomena and decades of collaboration and correspondence with Pauli, what led him to the psyche and matter connection conjecture. Jung was encouraged by the possibility of publishing his essay in a co-authored book with Wolfgang Pauli, was titled *The interpretation of nature and the psyche* (JUNG, PAULI, 2012). Since then, other authors offered important contributions based on Jung.

Ira Progoff (1990) reinforces Jung's perspective when arguing that the acausal relation principle proposed by synchronicity does not convey a negation of cause and effect laws but is a complementary principle. He considers the archetypical basis of the synchronicity's idea, indicating that synchronistic phenomena would be related to an archetype's constellation: because it is located in the psychoid field, the archetypical constellation would have manifestations both in material and psychic plans, synchronistically (PROGOFF, 1990).

According to von Franz (1992), the synchronicity phenomena are the images of the inner field of vision that relate not causally but meaningfully to objective external events. Such phenomena postulate the existence of an *a priori* pattern in nature, preceding human consciousness: a formal factor of nature that antecede the attempt to explain and apprehend the psyche.

Jung called this factor absolute knowledge, because it is independent from conscious knowledge. It would be a form of transcendental existence, contained in a psychically relative space-time, thus unrepresentable. Synchronicity phenomena are acts of creation in time, representatives of the acausal ordination that is perceived by individuals through meaning.

For this reason, these phenomena were considered, in earlier times, as manifestations of the deity or, in China, as a sign of the Tao (VON FRANZ, 1992). Von Franz's reflections address the possible limits of the separation between physical and psychic, a crucial point to Jung's interest in quantum physics.

Quantum physics offered Jung the possibility of conjecturing a relationship between psyche and matter. Jung (2012) affirms that microphysics and deep psychology have a common background, which is both physical and psychic at the same time, and thus it is neither, but a third thing, of neutral nature, that can only be conceived by means of allusions. Jung states that the acausal connection principle of synchronicity is the *unus mundus*:

It is the coincidence full of meaning that I defined as the synchronistic principle. This principle indicates that there is a connection, or a unity, of events which have no causal connection between them, and thus represent an aspect of the unity of being which can be called the "unus mundus" (one world)⁷ (par. 327).

In this context, Aufranc (2009) approaches the changes that quantum physics promoted in the possibilities of understanding the world in the last century, the same ones that inspired Jung in his dialogue with Pauli to elaborate the idea of synchronicity. She indicates that quantum scientists, like Pauli, did experiments that challenged the old paradigms of classical physics.

⁶ Jung (2013a; 2000) proposed an alternative to causal reductionist thinking in his work long before using the term synchronicity, when he suggests the point of view of finality for clinical work in "A energia psíquica" and "Natureza da psique".

⁷ Our translation.

ics that were not able to explain the functioning of the quantum world.

Physicists such as Heisenberg, Schrödinger, von Neumann, and Wolfgang Pauli had to come up with new scientific principles to describe quantum physics. Science faced the notions of uncertainty, interference of consciousness through observation of events, nonlocality (interconnection), and wholeness. Indeed, its implications were extensive. Therefore, meaning arises from chance; or, the general order that comes from the archetype reaches, simultaneously, in its psychoid nature, matter and psyche. This interconnection referred as quantic is experienced by us as synchronicity (AUFRANC, 2009).

Accordingly, quantum physics brought possibilities to classic Jungians broaden their comprehension, whereas the synchronicity idea has come to the attention of physicists such as Rocha Filho (2014), who sought an approximation of physics and analytical psychology, considering, especially, energetic aspects of the psyche. However, quantum physics is not the only area of knowledge that dialogues with the ideas of synchronicity. Next, the contributions of contemporary authors about new understandings on synchronicity are presented, based on interdisciplinarity.

5. New perspectives for synchronicity

The concepts of emergence and self-organization capacity of complex systems provided a new comprehension possibility of synchronicity. Below, publications that relate to these new ideas are shown in chronological sequence. Explanation of the theoretical concepts that ground them is emphasized.

Next, complementary contributions are shown, about the concept of time in synchronicity and about synchronicity's philosophical basis. Further, topical research perspectives in synchronicity are considered.

5.1 Complex Adaptive Systems (CAS)

Joseph Cambrey (2002; 2020) suggests that it is possible to reconsider the idea of synchronicity through complexity. Science at Jung's time did

not have an understanding about the behavior of open systems far from equilibrium, which is the case of self-organized systems. An explanation of the importance of these is that vital systems in organisms, in other words, life itself, can be considered self-organized systems (CAMBRAY, 2002).

According to Cambrey (2002), Complex Adaptive Systems (CAS) are a new way of thinking about systems started in the work of Ilya Prigogine, chemistry Nobel Prize in 1977. Prigogine sought to understand how it is possible that order and organization arise spontaneously among chaotic conditions, through what he called a process of self-organization in open systems far from equilibrium. This field of knowledge has developed and is known today as complexity, in which Edgar Morin's thinking is preponderant.

Researchers from the Santa Fe Institute, when exploring possible applications of the concepts from the theory of complexity and chaos theory, elaborated the idea of the CASs⁸. Complex Adaptive Systems have **emergent** properties: self-organizing properties that respond to environmental needs. An emergent phenomenon represents an adaptive response of the system to keep its organization from the chaos of the environment. This emergent event takes place at the edge of environmental chaos and system organization (CAMBRAY, 2002).

Self-organization, in this sense, happens as a collective movement towards a finality that would not be possible to be caused by only one part of the system alone. In the psychic context, for example, it is interesting to note that the works of Saunders and Skar (2001) and Hogenson (2001) consider archetypes as emergent properties from the activity and development of the brain system.

According to Cambrey (2002), an emergent phenomenon may seem to an individual a meaningful (because it represents a movement of organization) coincidence (because it is an inexplicable event to the understanding of consciousness). Hence, the synchronistic phenomena can be con-

⁸ The term was created by John H. Holland in 1992.

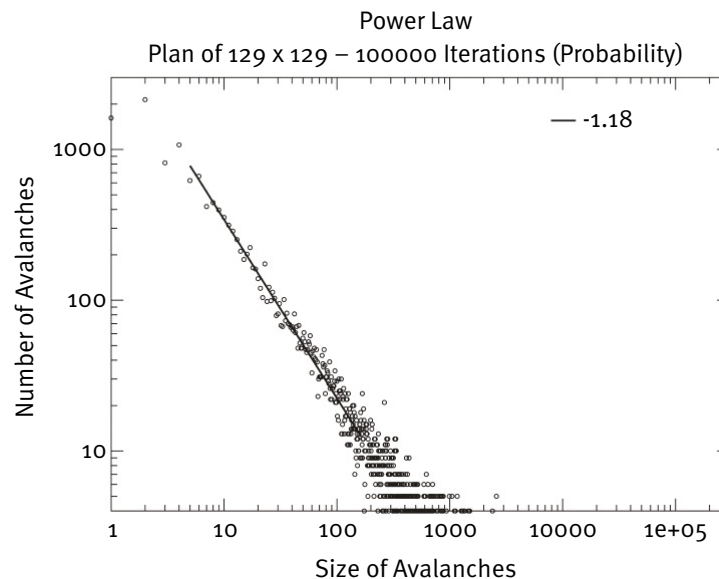
sidered an emergent aspect of the Self that play an important role in the process of individuation, within the Jungian understanding of the psyche as a SAC. In this way, Cambray (2002, 2020) made possible the reconsideration of the synchronicity in the sense of an emergent aspect of the psyche.

Hogenson (2005), detaining the idea of the emergent properties of the psyche, explores the behavior of a self-organized system to introduce the idea of criticality⁹. When the dynamics of a self-organized system extend to the maximum, it reaches a point known as self-organized criticality.

To explain it, Hogenson (2005) presents the classical analysis of this phenomenon, provided by the example of the physicist Per Bak (1996): imagine that you are letting grains of sand fall slowly on a table, forming a conical pile. As the pile of sand grows, the grains slide down the sides of the pile, maintaining its conical shape. At a certain point that cannot be predicted, the

of sand to slide down. This indicates that the system had reached the self-organized criticality point, so that the fall of a grain of sand caused a major reorganization of the entire pile. There is no way to predict exactly which grain causes the avalanche or when it will happen: the event is emergent from the system self-organizing properties when it reaches a criticality point.

The frequency of small slides of sand on the side of the pile is high and the avalanches is low. A chart of these numbers would show the importance of the events on the vertical axis, that is, the size of the sand slides, and on the horizontal axis, the frequency of these events. The greater the slide, the lower its frequency, and vice versa. This pattern is known as power law, a double logarithmic line (visually similar to a decreasing straight line), as can be seen in the following image:



Source: Carneiro, Charret (2005).

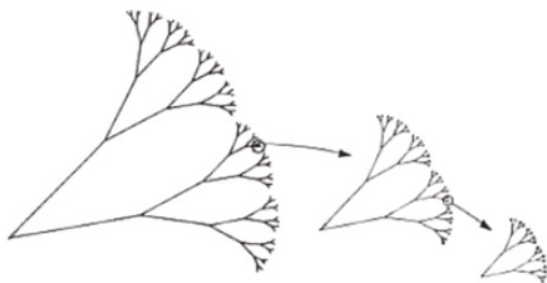
Figure 1 - Avalanche graphic of a sand pile

falling of the grains of sand sets off an avalanche on the side of the pile, causing a large amount

The **power law**¹⁰ is a distribution pattern different from the classical normal distribution model, also known as the Gaussian curve. Statistical analysis shows that some human and natural phenomena are based on the power law, such as the frequency of words in a text, the formation of housing communities from villages to metropolises, the ion transfer pattern within the brain and even the occurrence of earthquakes (HOGENSON, 2005). Basically, power law means that little things happen often and big things happen rarely. For example, small villages are far more numerous than large metropolises. Alternatively, in the case of a text, small words with simple meanings are more frequent than words with complex meanings.

Hogenson (2005) exposes another aspect of self-organizing systems that behave obeying the law of power. In these systems, there is a pattern of self-similarity in the phenomena observed. Regardless of the scale at which a phenomenon is observed, the same basic structure will be found.

The aspect of self-similarity is known as fractal structure, present in several complex systems. An example of a fractal structure is seen below:



Source: Assis et al. (2008).

Figure 2 - Fractal structure

¹⁰ Power law is an expression used to represent an event scale distribution pattern for events of the same type. For more information, look for Hogenson (2005).

Self-similarity, in the example of the sand pile, lies in the fact that, regardless of its size, the event is always a displacement of sand by the side of the pile. Hogenson (2005) argues that the fractal (self-similar) geometric structure described by the power law is also capable of defining the organization of the symbolic system and synchronicity. This is a crucial point in the author's argument.

It is important to consider that Jung puts the synchronistic phenomenon as statistically unlikely, based on a classical statistical understanding of the normal distribution of the Gaussian curve. Yet, Hogenson (2005) shows that the power law and the properties of the fractal systems allow a review of the perspective that Jung had. In presenting this hypothesis, the author offers a new statistical understanding of the synchronistic phenomenon, which is no longer a synonym of improbability.

Hogenson's (2005) argument is based on the conception that the psychic system proposed by Jung is based on the symbol. The author argues that the human psyche does not create the symbolic world, but rather inhabits it. The symbolic world is discovered by the psyche, in much the same way that mathematical laws of nature are discovered by science but exist independently. Then, Hogenson (2005) suggests that the symbolic is seen as more than merely a system of representations:

[...] but rather a relatively autonomous self-organizing domain in its own right, then we can investigate the degree to which the symbolic conforms to the structuring dynamics of a double logarithmic power law, and by extension displays self-similar or fractal structures [...]. In other words, the complex, the archetype, the synchronicity and the Self all 'exist' as moments in a scale invariant distribution governed by a power law. Like large cities, major volcanic eruptions, and catastrophic stock market crashes, synchronistic

phenomena are extremely rare, as Jung himself argued, but they are not improbable in the sense one would assume to be the case under more conventional probability theory. (p. 281)

In the section above, Hogenson (2005) exposes his hypothesis that the symbolic system is a complex self-organizing system, which presents self-similarity among its elements, structurally distributed by a power law. He argues that the concepts presented above are foundations of a principle of dynamism, called symbolic density, that is capable of unifying in a single system the basic concepts of Jungian theory, such as complexes, archetypes and synchronicity.

Hogenson (2005) suggests that the synchronistic event happens when the symbolic density reaches a critical moment. That is, recalling the example of the sand pile: the height of the symbolic sand pile reached a criticality point where a “symbolic avalanche” occurred and reorganized the psyche of the individual.

It would be necessary, according to Hogenson (2005), to further investigate the main point of Jungian theory: the notion of symbol. The synchronistic phenomenon is rare when considered from the perspective of classical statistics, but it can be understood as the emergent aspect of the self-organizing properties of this symbolic system, when the point of self-organized criticality is reached. This moment would represent a phase transition period in the development of the individuation process.

From the relation of synchronistic events and moments of phase transition in the life of an individual, Robert Sacco (2016) defends it would be important to find a mathematical foundation that would permit the quantitative verification of synchronicity. In a letter, Jung suggests that the bridge between mental and physical events seems to be formed by numbers (MAIN, 1997, p. 159-160 apud SACCO, 2016). Furthermore, Sacco (2016) recalls the notion of transcendent function to Jung (2000):

By “transcendent function” one should not understand something mysterious and so to speak suprasensitive or metaphysical, but a function which, by its nature, can be compared with a mathematical function of equal denomination, and is a function of real and imaginary numbers. The psychological and “transcendent” function results from the union of the conscious and unconscious contents. (par. 131)¹¹

Referring to Hogenson (2005), Sacco (2016) emphasizes that the growth processes in dynamic systems are related to the fractal patterns. He mentions trees as an example of how natural systems show fractal organization and behavior. It is possible to perceive the self-similarity between the branches and the trunks, as well as the distribution according to the power law: the smaller the branches, the larger they appear, the larger, the smaller the quantity, as far as the trunk.

Understanding that the psyche develops in a similar way, Sacco (2016) proposes that fractals would be the mediating mechanism between conscious and unconscious contents in synchronistic events and, therefore, fractal could correspond to the mathematic aspect of transcendent function.

The fractals power law scale is a function of Phi’s (ϕ) ratio, a value attributed to the Fibonacci sequence. The latter is known to be related with structural patterns of a variety of phenomena, from the distribution and quantity of seeds in a sunflower to the shares market behavior. When analyzing natural systems, fractal power law (the frequency proportion between small and big things) is argued to be related to the number Phi (ϕ) (SACCO, 2016).

This implies that in the case of the tree, for example, the proportion between the number and size of branches would follow the ratio of Phi (ϕ). He states: “Thus the universe functions

¹¹ Our translation.

according to the rules of Phi fractal scaling and Phi is the mathematical foundation of the physical world” (SACCO, 2016, p. 209). That is, Phi (ϕ) would be the bridge between the physical and the psychic world.

The brain and its thousand trillions of neural connections can be considered a complex system capable of self-organization. The DNA, life’s foundation and the source of the organization of the growth of the human organism, also has the golden ratio (ϕ) in its geometry. In addition, Sacco (2016) cites nine (9) studies related to fractals identified within psychology in a variety of subjects (for example: time reaction; visual search; speech patterns; memory; self-esteem; personality neurodynamics; self-concept).

Sacco’s (2016) innovative hypothesis is that, once the information encoding performed by the mind-brain seems to be based on the golden ratio (ϕ), perhaps the human consciousness also has its functioning related to the ratio of Phi (ϕ). This would be the mediating factor between conscious and unconscious contents during the occurrence of synchronistic events.

The author elaborates a developmental model called FLCM (Fibonacci Life-Chart Method), with which it would be possible to predict when transitions in the life of individuals would occur from their date of birth. Synchronistic events would be more frequent on these periods, moments in which the symbolic system of the psyche would be in a state of self-organized criticality (SACCO, 2016).

5.2 Time concept and philosophical basis

Yiassemides (2011) makes an important reflection on the question of time within the notion of synchronicity. According to Yiassemides (2011), while meaning seems to be consolidated as the key point in the understanding of synchronicity, time is still a subject avoided and misinterpreted by post-Jungian authors.

This may be due to the insufficiency of Jung’s account of the temporal aspects of the concept of synchronicity and the relation between the

psychoid archetype and synchronicity. It is suggested that synchronicity be understood as an expression of the psychoid, and time be the crucial element in the connection between synchronicity and psychoid¹² (YIASSEMIDES, 2011).

Yiassemides’ (2011) argument is based on the idea of relativization of time, understanding that the fixation of time and space are needs of conscience. If the synchronistic event must be meaningful to its observer, it can only be within a temporal consciousness of an observer. Two kinds of time are distinguished, consciousness time (individual) and relative time (of unitary reality).

Besides that, the author proposes that Jung implicitly considered time as a “unified temporal field” (YIASSEMIDES, 2011, p. 454), which manifests depending on the context. She argues that there is a function of consciousness that carries out the derelativization of time so that consciousness can apprehend it, turning it fixed, chronological, as it is in human experience. Yet, fixed time, such as fixed space, does not exist in itself, it is “produced by consciousness”¹³ Jung (2014, par. 84) by a psychic necessity.

Cognition needs a definite state of time and space, separation of object and observer, separation of psyche from matter. Despite that, the psyche is capable of transcending this state of dual separation and coming into contact with the level of uniqueness of the *unus mundus* at the occasion of significantly interconnected events (YIASSEMIDES, 2011). That is, conscious experience is based on the separation between psyche and matter, between subject and object.

However, this separation does not represent reality itself, only the way through reality is experienced. There is a unitary reality underlying the dualistic separation of the conscious

¹² The idea of psychoid in Jung’s work was introduced to articulate the characteristic that the archetype belongs to both material and spiritual realms. The archetype has a dual nature that is beyond the psychic level. The psychoid nature of the archetype forms a bridge between the psychic and material plans of reality (YIASSEMIDES, 2011).

¹³ Our translation.

experience of the psyche, what von Franz called unitary dualism.

According to von Franz (1974): “Jung used the expression *unus mundus* to designate the unitary transcendental reality underlying the dualism of psyche and matter.” (p. 171)¹⁴ It can be said that this unitary reality to which von Franz refers is the psychoid. To sum up, Yiassemides (2011) argues that the idea of time is crucial in the discussion of what is psychoid and structurally fundamental to synchronicity. The unitary reality experienced dichotomously (psyche-matter) is a comprehension elaborated by Jung and Pauli stemming from the archetypes psychoid property.

The psychoid notion reverberates in the philosophical field, as to ontology and epistemology, from Atmanspacher’s (2014a) contemporary contributions. The author indicates relations between the knowledge elaborated by Jung and Pauli and other areas, such as philosophy and physics.

Employing philosophy terms, the author classifies synchronicity as a **dual aspect monism perspective**¹⁵. Monism of dual aspect has its origin in the Espinoza’s thinking. It represents an alternative to the ontologically dualistic conception proposed by Descartes, which would be a complete separation of mind and matter.

That is the combination of an ontologically monist and epistemologically dualist conception. A monistic ontology is expressed by the thought that reality, in essence, is holistic and indivisible. However, it is epistemologically dualistic because this reality can only be accessed or experienced by a subject, through the separation of the psychic and material domain (ATMANSPACHER, 2014b).

According to Atmanspacher (2012), the idea of dual aspect monism translates into the conjecture of Jung and Pauli (2012) by the conception of a psychoid reality underlying the experiential psychic-physical duality (dualistic epistemology). This underlying domain is called *unus mundus* (monistic ontology). Therefore, matter (physical) and mind (psyche) domains are aspects or perspectives from a neutral reality domain (neither physical nor psychic) that resembles Jung’s idea of a psychoid archetype.

The neutral domain, undifferentiated and inseparable, is unknowable. The individual has contact only with the contextual manifestations of aspects (e.g. matter and mind). That is, the physical and psychic worlds would be representations of the psychoid archetype, undifferentiated unitary reality or *unus mundus*. The physical and psychic domains are already differentiated states of this reality. The dual-aspect view of monism implies correlations and between mind and matter:

In this sense, making a distinction is a primordial principle of every epistemology, sometimes called an epistemic split. [...] When the holistic *unus mundus* is split, correlations emerge between the resulting domains. [...] Conceiving the mind-matter distinction in terms of an epistemic split of a psychophysically neutral domain implies correlations between mind and matter as a direct and generic consequence. It is important, though, to stress right at the outset that these correlations are not due to causal interactions (in the sense of efficient causation as usually looked for in science) between the mental and the material. (ATMANSPACHER, FACH, 2013, p. 228)

Atmanspacher and Fach (2013) defend that synchronistic events would be a form of mind-matter relations. They propose a structural-phenomenological typology of mind-matter

¹⁴ Our translation.

¹⁵ A thorough discussion of how the idea of synchronicity elaborated by Jung and Pauli characterizes as a dual aspect monistic thinking can be found in Atmanspacher (2012). For examples of other variants of dualistic thinking elaborated by other writers such as David Bohm and David Chalmers, see Atmanspacher (2014b).

correlations, ranking a series of empirical data considered “extraordinary human experiences” collected at the Institute for Frontier Areas of Psychology (IGPP) in Freiburg, Germany.

The authors argue that Jung and Pauli’s propositions on synchronistic events would be aligned with the typology of extraordinary experiences, thus representing the possibility of an empirical basis¹⁶ of events that could be considered synchronistic.

5.3 Research perspectives

Recently, Cambray (2019) and Kime (2019) display different perspectives about synchronicity. Joe Cambray (2019) approaches the idea of syncretism (the combination of different practices and beliefs), emphasizing Jung’s capacity of integrating the vast and diverse cultural material in his theory. This author defends that the notion of syncretism can represent an important element for Jung’s theory comprehension, specifically about synchronicity and archetypes theory.

Cambray (2019) suggests, also, that the notion of **adjacent possible**¹⁷ can be a next step to the study of synchronicities, at both personal and cultural levels, as well as its implications on clinical practice.

While Cambray seeks to expand the borders of psychological thinking dialoguing with other areas of knowledge, Kime (2019) points to a different direction: he shows a critique to the use and definition commonly used in analytical psychology of synchronicity, questioning its relevance to the individual psychology field and situating synchronicity in metaphysics field.

¹⁶ A discussion of the empirical investigation of synchronistic events can also be found in the last part, entitled “Synchronicity” (ROESLER, ATMANSPACHER, 2018), of the book edited by Christian Roesler, *Research in analytical psychology: empirical research*. His ideas allow more consistency in future research on the synchronistic phenomenon.

¹⁷ Term created by Stuart Kauffman in 1996, a Santa Fe Institute researcher. See Gravino et al. (2016) for an example of a practical application of the concept.

6. Conclusions

The notion of synchronicity is fundamental to the understanding of the psychic dynamics proposed by Jung, for it is related to the nature and properties of the archetypes in their formal aspect. Its discussion goes beyond the frontier of the psyche, reaching the ontological and epistemological foundations of “reality itself”.

The strict and wide senses conceived by Jung remain as foundations for the work of researchers of the subject. On the other hand, recent authors could develop some aspects of his hypothesis. All in all, the synchronistic phenomenon is understood as an event that emerges from the self-organizing capacity of the psyche, what allows an important change of perspective about synchronicity (CAMBRAY, 2002; 2020).

Instead of being considered a rare and improbable phenomenon, the synchronistic phenomenon assumes the condition of an important moment in the organization dynamics of the psyche (CAMBRAY, 2002; HOGENSON, 2001; 2005). It must be noted that the temporal perspective of synchronicity is generally neglected and needs to be investigated. However, one must consider that synchronicity’s nature is not chronological (YIASSEMIDES, 2011), therefore, any attempt of temporal quantitative determination seems contradictory (SACCO, 2016).

The demonstration that synchronicity stands on a dual aspect monism conception clarifies the ontological and epistemological basis of the psychoid domain (ATMANSPACHER, 2012; YIASSEMIDES, 2011). Seeking to investigate synchronicity empirically can also be considered paradoxical: it is fruitful to approach other areas of knowledge, but incoherent in the sense that synchronicity is intrinsically a critique of the consolidated scientific bases today (ATMANSPACHER, FACH, 2013; ATMANSPACHER, 2014a).

The investigation of synchronicity is continually challenging. Therefore, it is criticized in order to suggest the limits of the psychology field

(KIME, 2019). However, synchronicity's interdisciplinary and innovative spirit permits dialogue with other areas of knowledge and the constant updating of Jungian theory (CAMBRAY, 2019). The discussion of synchronicity is able to evidence

the relevance of significant coincidences, often misunderstood, and to broaden the psychic dynamics comprehension. ■

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Resumo

Sincronicidade: relações entre a obra junguiana e novas proposições teóricas

A sincronicidade é um dos conceitos mais complexos e importantes da psicologia analítica. O presente artigo é uma revisão de literatura e objetiva apresentar o conceito a partir da visão junguiana clássica como alternativa ao paradigma da causalidade e, em seguida, mostrar novas contribuições de autores contemporâneos acerca do tema. Foram investigados possíveis diálogos entre a sincronicidade e outras áreas do conhecimento. Verificou-se que há uma linha de pensamento atual baseada na teoria de Siste-

mas Adaptativos Complexos (SACs), que permite uma importante mudança de perspectiva em relação ao fenômeno sincronístico. Além disso, contribuições sobre a noção de tempo dentro da sincronicidade e sobre as bases filosóficas da hipótese junguiana são expostas de maneira complementar a discussão. Conclui-se que a sincronicidade está além de uma improvável coincidência: pode representar um importante fator dinâmico na propriedade de emergência e de auto-organização da psique. ■

Palavras-chave: Sincronicidade, Complexidade, Emergência, Psicologia analítica.

Resumen

Sincronicidad: relaciones entre la obra junguiana y nuevas proposiciones teóricas

La sincronicidad es uno de los conceptos más complejos y importantes de la psicología analítica. El presente artículo es una revisión de la literatura, que tiene como objetivo presentar el concepto desde la visión clásica junguiana, como una alternativa al paradigma de la causalidad, y luego mostrar nuevas contribuciones de autores contemporáneos acerca del tema. Se investigaron posibles diálogos entre la sincronicidad y otras áreas del conocimiento. Se verificó que existe una línea de pensamiento actual basada

en la teoría de Sistemas Adaptativos Complejos (SACs) que permite un importante cambio de perspectiva en relación al fenómeno sincronístico. Además, se exponen de forma complementaria a la discusión aportaciones sobre la noción de tiempo dentro de la sincronicidad y sobre las bases filosóficas de la hipótesis junguiana. Se concluye que la sincronicidad está más allá de una coincidencia improbable: puede representar un factor dinámico importante en el surgimiento y autoorganización de la psique. ■

Palabras Clave: Sincronicidad, Complejidad, Emergencia, Psicología analítica.

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