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Between science and philosophy: the issue of naturalism on Carl Gustav Jung's psychology

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Abstract: Carl Gustav Jung's thinking is characterized by complexity and a continuous dialogue between science and philosophy. His theoretical positions, frequently misunderstood, led him to constant efforts in defence of the empiricism and foundations of modern scientific thought, often through criticism towards what he considered as indemonstrable presupposes. This trajectory shows, nonetheless, a series of difficulties. Through the notion of Naturalism, this study aims to indicate an approach to understand the complexity of Jung's thought. Indeed, two different but complementary versions of Naturalism can be distinguished in Jung: a methodological Naturalism that keeps him close to the scientific thought of his day, and an ontological Naturalism, which is aligned with Romanticism and the *Naturphilosophie*, implying theoretical considerations which distance him from his contemporaries. To harmonize these two types of Naturalism was a problem for Jung, and it is a challenge to understand his thinking.

Keywords: C. G. Jung, history of psychology, naturalism, philosophy, science.

Introduction

Even if the psyche were a product of the will, it would still not be outside nature. Jung (1942/1983, p. 159)

Carl Gustav Jung was not a philosopher in the academic sense of the term, and he reaffirmed a number of times throughout his productive life, in letters and texts, that he had a phenomenological perspective and his work was strictly empirical and inscribed in the field of science. As we will see in this paper, his relation to science was not less conflicting than his relation to philosophy.

Nevertheless, Jung cannot be thought of only as a doctor or psychologist. His work is the construction of a thought, the detailed and meticulous elaboration of a systematic reflection on life, and on human life in particular. His study on the *Weltanschauung* (1927/1981) shows very clearly how his positioning can be classified as philosophical. Jung was also a philosopher, perhaps against himself.

We can affirm beforehand that his passion for philosophy was unquestionable and persistent, which led him to study in depth authors as Kant, Schopenhauer and Nietzsche. In addition to this, there are marked erudition and interest in unorthodox knowledges, such as alchemy and oriental thought, which at that time began to attract European intellectuals' and artists' attention.

Swiss psychiatrist's work is at a crossroads where it is possible to visualize a change of perspective. Jung is

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immersed in a point of tension between the naturalism proper to German Romanticism and the methodological naturalism that provided the basis for natural sciences. Similarly, we can understand that Jung's thought is at the change of Newtonian physics into field and relativity theory: from a three-dimensional world to a four-dimensional world. Between the lines, this marks Jung's theoretical course profoundly, and makes his thought to be characterized by complexity.

In this sense, we cannot leave behind the perspective of confrontation that Jung establishes throughout his work—from the confrontation with the unconscious, which is the characteristic of his therapeutic method, to a broader confrontation directed at the canons of the thought of his time, notably the scientific knowledge.

Two models of naturalism: ontology and method in dialogue

The argument that will be developed in this work proposes showing that two different ways of naturalism coexist in Jung's theory. On the one hand, so that to think the foundations of the psyche, Jung is in a German romanticism unfolding, whose genealogy certainly goes back to Goethe, but also to Schopenhauer, and particularly to Carl Gustav Carus and Eduard von Hartmann – although Jung attributes to Nietzsche the most direct paternity of a medical-psychological notion of the unconscious (Jung, 1934/1981).

Although various philosophers, among them Leibniz, Kant and Schelling, had already pointed very clearly to the problem of the dark side of the psyche, it was a physician who felt impelled, from his scientific and medical experience, to point to the *unconscious* as the essential basis of the psyche. This was C. G. Carus, the authority whom Eduard von Hartmann followed¹. (Jung, 1940/1990, p. 152)

This discussion on the foundations of the psyche and its obscure side is the starting point for thinking, for example, about the parallel between oneiric life and psychopathology, a theme that was characteristic of Depth Psychology and whose roots, once again, refer to Romanticism authors. In fact, Albert Béguin (1991) affirms that an author as Lichtenberg recognized not only the self-diagnostic value of dreams, but also that they refer directly to the center of our personality. Sonu Shamdasani (2003/2005), in turn, shows in detail how the romantic atmosphere influenced the medical thinking that subsequently served as the basis for the construction of Depth Psychology.

At other times in his work, Jung quotes Carus and von Hartmann to show that both contributed to a philosophical idea of the unconscious, from which empirical psychology developed its own concept, without the former having been totally abandoned – at least in Jung, precisely for referring to the background notions that support his understanding of psyche.

On the other hand, because it is an empirical psychology, Jung could not deprive himself of constructing a precise method of approaching the psychic fact. It is at this point that naturalism of romantic bias gives way to methodological naturalism, whose foundations were, for him, the same as any other scientific research. In a 1933 letter addressed to Christian Jensen, Jung (1999) states: "I am essentially an empiricist" (p. 137). Almost thirty years later, in a letter to Gerhard Krüger, dated February 17, 1961, Jung (2003) keeps on arguing that his work is empirical: "I have no general basic conception since I am an empiricist as everyone who studies my works can see" (p. 320).

However, despite the internal coherence and rigor with which Jung maintained the empirical point of view throughout his research, it was difficult to convince his audience that he was strictly on the phenomenological plane. With no doubt, it is a consequence of the little perceptive reading of his work, as he emphasizes, but also of the fact that we find different positions in relation to naturalism in Jung's writings, as the working hypothesis in this study suggests.

Still in his correspondence, in a letter to Robert Smith, dated June 29, 1960, the Swiss psychiatrist states: "All my ideas are names, models and hypotheses for a better understanding of observable facts" (Jung, 2003, p. 270). One of the themes that always generated confusion

about Jung's work was his interest in religion. In addition to being considered a philosopher (at best), he was also seen as a mystic and theologian because of his studies on theology, alchemy, and Eastern thought. However, in these themes – as in so many others that refer to the operationalization of his thought – Jung maintains a strict coherence: his interest has always been in religion as a phenomenon. Similarly, myths, symbols, alchemical images, and oriental allegories were manifestations seen by Jung as expressions of the psychic fact. This understanding has supported both his research and his clinical practice, and it is no exaggeration to say that, in Jung's work, religion is far from being an impediment to the empirical approach. Religion is a question of research, but by no means has it distanced him from his scientific rigor. However, this does not end the problem, as it will be seen later.

Important formulations of Jung's theory, such as archetypal images or the late concept of synchronicity, claim an empirical basis that is demonstrable in his work. As word-association experiments gave rise to the idea of autonomous affective complexes, historical and comparative anthropological research provided the basis for Jung to construct hypotheses that gradually became the scope of his theory. Jung starts from the notion of dissociation of personality – the theme that was the object of his doctoral thesis – to arrive at the idea of affective complexes and, subsequently, the archetypal images. From experimental protocols with association of words, the author attached himself to historical and anthropological research, which broadened the horizon of his reflections and also the scope of his hypotheses.

It is true that Jung gradually departs from the need for supporting his claims in the experimental model, which leads him to criticize the directions that empiricism took in scientific psychology. Nevertheless, his research follows an empirical model, and notions such as that of functions of consciousness or even of synchronicity depart not only from theoretical reflections but also from the clinical field, the primordial territory of his psychological investigation, in which he affirms to sustain his discoveries.

In fact, in Jung's work, 236 clinical cases are mentioned, and although he insists that any theory is ultimately a subjective confession, he relies on observation to support his claims (Cohen, 2015)². Thus, when introducing the concept of synchronicity, the author uses several scientific studies on related themes, and also clinical observations. "The term "synchronicity" is first and foremost a proposed name which at the same time stresses the empirical fact of meaningful coincidence.

¹ Quotations from French texts are free versions, as well as some quotations from English texts; all of them are indicated in footnotes.

² Betsy Cohen (2015) raises a critical point regarding Jung's clinical examples by stating that the author has not published any extensive case, using only excerpts from treatments that take the risk of "illustrating his theory instead of demonstrating the process developed between Jung and his patient" (p. 36).

For the empiricist it is only a makeshift model" (Jung, 2003, p. 152).

The coexistence of two distinct models of naturalism in Jung's work can be thought of as one of the sources of its complexity, and also one of the reasons why his works are often barely read or simply dismissed. But even throughout his work, this coexistence is not devoid of conflict, which does not go unnoticed by the author. Shamdasani (2003/2005) states that there are two very clear axes in the way Jung thinks and presents his work. In the first, specific theories are established, improved, and go through demonstration. The second axis of his thought "consists of an ongoing questioning concerning the conditions of possibility of psychology" (p. 16). A thought that is built in cycles, in a process of successive syntheses that reminds us of the movement of Eastern thought.

We will see below how the complexity of Jung's theory is noted; also, that the two axes mentioned by Shamdasani are another way of thinking the two models of naturalism present in Jung's work, the unfolding of one and the other in theory.

The naturalism put to the test: on the boundaries between objectivity and subjectivity

As much as Freud and other exponents of his time, such as Wilhelm Wundt and William James, Jung understood psychology as a branch of the natural sciences, working on a comparative psychology that made constant allusions to the nexuses between organic functioning and psychic functioning. Although Darwin was hardly quoted in his work, Jung was directly inspired by the naturalistic model of understanding, especially by his method: history as a method of research, connecting natural with biological sciences. His recurrent research on anthropology and archeology shows how much these areas of study were fundamental to him in the understanding of psychology.

The question of objectivity in the research procedures had been present from the beginning of his work in the psychiatric clinic of Burghölzli, as attested by his famous word-association experiments, by which Jung gained notoriety even before embarking on the task of constructing a model of structure and functioning of the psyche. As Deirdre Bair (2007) recalls, word-association experiments are considered by some "traditionalists" as "his most important contribution to psychoanalysis, since they rely on rigorous scientific procedure" (p. 135).

Certainly this "traditionalist" view is quite hasty and does not take into account some of Jung's own questions about the scientific method and its ontological assumptions. In any case, the experimental psychopathology laboratory organized by Jung in the years 1904/1905 was a place of development of an accurate technique that aimed to apprehend what the author called

affective complexes, his main theme of study at the time (Jung, 1961/1993; Bair, 2007). The effectiveness of this method – on which Jung recommended a critical view – even led him to render services as an expert in the courts of the canton of Zürich (Bair, 2007).

Jung sought objective elements in the psychic fact through the idea of affective complexes, and it is in the course of these pieces of research that the author finds Freud's works, which will serve as a theoretical contribution to the understanding of what he had already realized in the functioning of patients' psyche in the psychiatric clinic where he worked under the direction of Eugen Bleuler. As the history of psychoanalysis shows, it is from Jung's studies that Freud will include the term "complex" in his theory.

The early texts of Jung's career as a psychiatrist show not only his mastery of the area of knowledge, but also a certain detachment, or at least a certain suspicion of canons of psychiatry. In discussing cryptomnesia, for instance, Jung (1905/1993) states that "the reappearance of old, long-forgotten impressions is, however, explicable in terms of the physiology of the brain" (p. 109), since impressions, no matter how slight they may be, leave traces in memory, even when being unconscious perceptions (Jung, 1902/1993). However, in order for these reproductions to occur, "an abnormal mental state is always needed" (Jung, 1905/1993, p. 110).

When analyzing a case of cryptomnesia in Nietzsche, at the time of Zarathustra composition, as well as other cases reported in psychiatric literature, Jung (1905/1993) insists on the fact that, in addition to the physiological aspect, it is essential to consider the psychic aspect of this phenomenon. "Symptoms of a lesion in Broca's convolution and the neighbouring areas of the brain bear little resemblance to cryptomnesia" (p. 111). This positioning will lead Jung to distance himself from the nosological language of psychiatry, and also cast doubt on the definition of psychology as experimental science, questioning the excessive emphasis on scientific materialism as well as the insistence of early psychologists to fit with natural sciences protocols. All this without giving up basing his method on the scientific naturalism of the 19th Century, at the same time distancing himself from it for affirming the autonomous character of the psychic processes.

If, on the one hand, he states there is no room in science for subjective confessions (Jung & White, 2007), on the other hand he assumes the fact that all intellectual production is necessarily filtered by subjectivity. No matter how we build protocols that aim to minimize subjective influence, even the creation of such procedures is already the result of a work that synthesizes personal and cultural elements, a certain research practice and certain beliefs about reality. Hence Jung's permanent mistrust of materialism, since this position represents, in his view, an ontological option which, in spite of grounding all scientific research, is indemonstrable in itself.

Rationalistic materialism, an attitude that does not seem at all suspect, is really a psychological countermove to mysticism – that is the secret antagonist which has to be combated. Materialism and mysticism are a psychological pair of opposites, just like atheism and theism. (Jung, 1927/1981, p. 370)

Although Jung does not dismiss mysticism as an object of study, placing materialism in a direct parallel reinforces the fact that, behind this epistemological positioning, there is also a process of mystification. In other words, this device of reality reading and interpretation, which is transmitted to us as the apex of objectivity, is only a way of apprehension, an interpretive model which, by gaining the status of ultimate truth about the nature of things, becomes no longer a support for hypotheses of work, but a kind of Procrustean bed instead.

Moreover, criticism of materialism does not prevent him from keeping on positioning himself as a researcher based on empiricism and naturalism. By discussing the concept of the collective unconscious, Jung (1936/1990) states that

Although this reproach of mysticism has frequently been levelled at my concept, I must emphasize yet again that the concept of the collective unconscious is neither a speculative nor a philosophical but an empirical matter. The question is simply this: are there or are there not unconscious, universal forms of this kind? (p. 44)

Jung is discussing to what extent collective unconscious and archetype concepts – the so-called universal forms in the psyche correlated to what the instincts would be for organic functioning³ – have empirical value. For this purpose, he differentiates the archetypal motifs from cryptomnesia, that is, he seeks to distinguish what belongs to personal acquisitions, even if forgotten for a long time, from what would be the result of an update of acquisitions of the culture. This distinction leads to need to demonstrate how the difference between personal complexes and impersonal archetypes would be noticed. It is not without difficulty that he does so, bringing historical examples, insisting on the necessary caution to use these methods, and mainly emphasizing that the simple act of naming figures as

archetypal is far from being what he proposes. Jung is looking for parallels on the horizon of the *functional meaning* of images, and because of this, *extensive and tiresome research* is needed.

At this point, it is important to note the security with which Jung dissociates himself from philosophical speculation, mysticism and, along with it, from the materialistic premise of the modern sciences. Wanting to differentiate himself from mysticism and at the same time associate it with materialism indicates how much Jung tried to sustain himself in a complex position that does not give up objectivity. This implies that a secure knowledge of the psyche is possible, but at the same time it refuses the avatars of scientific objectivity: materialism, rationalism, causality, experimentation.

On the one hand, the affirmation of an inalienable material foundation of the psyche; on the other, the declaration of its autonomy and uniqueness. If there is no room for subjective confessions in science – another way of saying that psychological research can touch the nature of the psyche to some extent –, in contrast, it insists on the fact that all knowledge is ultimately subjective.

These counterpoints cannot simply be qualified as contradictions. As we have pointed out earlier, some of the difficulties that Jung faced are in this fact, and also the escape lines that indicate the prevailing performance of the psyche in the construction of knowledge. These paradoxes express at the same time the peculiarities of the author's own psychic work in the construction of his work, and the fact – emphasized so often by Jung – that the psyche, considered in its totality, implies an understanding that escapes from the canons of rationalist understanding, although it does not abstain from reason. To a large extent, these difficulties anticipate problems that have become relevant in the scientific field throughout the 20th Century, such as the conditions of possibility of interrogating reality, the relativism of methods, the very idea of paradigms as the support of scientific truths, and the inclusion of the observer in the construction of knowledge. But Jung discusses what he himself calls antinomies without necessarily clinging to any of these problems, since he is also grounded in a kind of ontological and epistemological security that drives him through the difficulties perceived throughout the construction of his thought. Perhaps here we can better understand the reason why intuition has such an important place in Jung's reflections.

The unconscious as a relativization vector of materialism

For Jung, questioning materialism is a fundamental operation, inasmuch as for him this view of the world limited the apprehension of the psychic fact. Discussion quite popular in his time, the limitation of the psychic phenomenon to consciousness and physiology was one

³ It should be noted that Jung's definition of the term *instinct* is quite broad and closely approximates what Eduard von Hartmann states in his "Philosophy of the Unconscious." In fact, von Hartmann (1869/2006) associates the instinct with an "unconscious knowledge" (*unbewusste Erkenntniss*), and from this, he associates instinct and intuition (p. 147). This connection between instinct, unconsciousness and intuition is not alien to Jung, and it is even a constituent of his reflections on the psyche. This shows how much Von Hartmann was present in Jung's thought, and also how much the notion of instinct is taken in order to include the psychic dimension, which holds off this notion from a simple preprogrammed automatism. It is also interesting to note that Jung made quite an indiscriminate use of the terms *Instinkt* and *Trieb*, which have provoked innumerable uproars regarding translation and conceptual usage.

of the mystifications which he and other psychologists of his time opposed to. Unlike Freud, this opposition to reductionism in reading the psychic fact would only be possible for Jung if the ontological basis underlying these mystifications was also questioned. It is with this motivation that he launches himself in relativizations of the materialist point of view.

In addition to the Neoplatonism that we might attribute to his interpretation of the psyche, which implies a subtle dualism⁴, Jung is immersed in a problem shared with Carus and von Hartmann, and which belongs to the universe of restlessness of romantic naturalism: the issue of the boundaries of consciousness and of the origins of the unconscious, as well as the difficulty of delimiting them, hence the insistence on the importance of dreams, which would be the direct expression of the inapprehensible human life strata (Béguin, 1991). As for Jung, this boundary problematic also leads him to think about the limits between singular and collective, somatic and psychic.

"The underlying, primary psychic reality is so inconceivably complex that it can be grasped only at the farthest reach of intuition, and then but very dimly. That is why it needs symbols" (Jung, 1934/1985, p. 159). This statement, markedly in tune with Romantic thought, also indicates the central element that Jung will use throughout his historical and clinical research: the symbol. For Jung, the symbol composes a perimeter, a kind of thickening that connects nature and culture, between ontogeny and phylogeny. As the psyche and the unconscious, the symbol is seen as a natural element whose origin is not attributed to the individual. With such understanding, Jung plunges into the study of myths, comparative history, and symbolic images of alchemy. Therefore, the symbol acquires the status of an object that informs us about that territory of opacity that the unconscious is.

Intuition is another element that appears here and that will also have prominence in Jung's thought. Since, by definition, unconscious is out of the consciousness limits, and in view of the fact that some psychic processes cannot be reduced to conscious operations even though they produce effects on consciousness, intuition gains status as a methodological instrument. Ultimately, it is by it that the unconscious research is oriented, both in the directions and in the construction of explanatory hypotheses and models.

In an extensive study on the theory of psychoanalysis, Jung (1913/1989), when still devoting himself to it, wrote:

We do not pretend to know or to assert anything positive about the state of psychic elements in the unconscious. Instead, we have formulated symbolical concepts in a manner analogous to our formulations of conscious concepts, and this terminology has proved its value in practice. (p. 140)

This radical cut between conscious and unconscious is structuring of Depth Psychology, and both Freud and Jung will operate in the sense of understanding how translations are from one sphere into another. Nevertheless, they will do so in quite different ways. Still in this same text, Jung already shows indications of his thought directions, particularly with regard to the status of the symbol, the connection it promotes between nature and culture, as well as the preponderant place of intuition.

Commenting on a case of child neurosis analyzed by his assistant Mary Moltzer, Jung (1913/1989) states, regarding a dream of the child under analysis: "It does not matter that the symbolism was not clear to the consciousness of the child, for the emotional effect of the symbols does not depend on conscious understanding" (p. 215). Therefore, there is an operative quality in the very production of the symbol, which does not depend on the conscious will, nor can it be called arbitrary. Jung (1913/1989, p. 159) continues: "It is more a matter of intuitive knowledge⁵, the source from which all religious derive their efficacy. Here no conscious understanding is needed; they influence the psyche of the believer through intuition" (p. 215).

There is an assumed dimension of unconscious knowledge, which again reveals one of the ways of naturalism present in Jung's theory. If symbols can act in the absence of consciousness, it is because there is in them an inherent potential for affection, which acts independently of volition, by the simple act of having arisen in consciousness. And, if there is an "intuitive knowledge," it is because, to some extent, we are capable of apprehension of reality that would be broader than our everyday instrumentality allows us to suppose. This leads us to Jung's discussion on the autonomy of the psyche, and far away from Freudian thought.

In fact, Jung (1957/1978) points out in several moments that:

The structure and physiology of the brain furnish no explanation of the psychic process. The psyche

^{4 &}quot;It can rightly be said that the concept that the ultimate structure of reality is not in the universe observable strata, but in a non-material level that only our minds (or our feelings) can witness, forms the theme of connection between Jung's theory and its origin in Plato's belief in transcendent causes" (Nagy 2003, p. 184). However, the mentioned author does not allude to the fact that Jung (1921/1990), returning to the scholastic discussion, criticized the platonic universalia ante rem (the universal previous to the thing, the particular) to affirm the Aristotelian position of universalia in re (form and matter coexisting). Jung returns to Plato at various points in his work, notably to discuss the archetype question, but it should be noted that this does not mean a simple adherence to Platonic thought. A critique of Platonism can also be found in Jung (1945/1983).

^{5 &}quot;... ein Wissen von Ahnungswegen..." (Jung 1913/1955, p. 179). The English version of the text in question translates Ahnung into intuition, and Jung himself uses both Ahnung and Intuition several times. Although these words are in the same semantic group, a more in-depth study of their specific uses seems important to us to better understand the extent of the concept of intuition in Jung's work, as well as its relation to the notion of instinct.

has a peculiar nature which cannot be reduced to anything else. Like physiology, it presents a relatively self-contained field of experience, to which we must attribute a quite special importance because it includes one of the two indispensable conditions for existence as such, namely, the phenomenon of consciousness. (p. 270)

The parallel with physiology is not free. As the materiality of the body is fundamental to any existence, consciousness is necessary for the notion of the world and of existence itself. Jung says that consciousness is a precondition of being. However, it occurs that the psychic phenomenon is not confined to conscious activity, and for this reason, in spite of sustaining a model of analogy between the physiological and the psychic, Jung criticized Gustav Fechner's psychophysical parallelism. This analogy in Jung is more structural; it is equivalent to saying that the psyche has its ground in the organism. It is also equivalent to saying that, since it is not possible to apprehend the psyche directly, the hypotheses made about it have as a starting point the functioning of what is apprehensible to us: the body and the consciousness.

However, demarcating the difference also sounds fundamental to him since the reach of the psychic fact, taken in its entirety, is much broader than the structures of our physiology could encompass. The physiology of the brain of every human being is incapable of explaining the myths, symbols, or psychopathologies, as it was thought at Jung's time. We can even physiologically illustrate the production of dreams, and also think of research protocols that map the brain effects of a symbol, but it would still not give us answers about the dream function or the affective value of myths and symbols. For this reason, Jung carefully avoids interrogation as to the origin of these phenomena, for a démarche of this kind would necessarily lead us to speculation, for empirically proving how myths arose, for instance, is impossible without inducing ourselves to procedures polluted by ideology.

In order for Psychology to build up itself as an empirical science, it had to get rid of some ghosts that surrounded it, as a metaphysical view of the psyche or the idea that this would be the epiphenomenon of a brain biochemical process. Another ghost would be to consider psyche a purely personal question. Jung puts psychology foundation as science in opposition to the bases of scientific discourse by affirming a process that, although related to the organism, could not be reduced to this.

The connection with the brain does not in itself prove that the psyche is an epiphenomenon, a secondary function causally dependent on biochemical processes in the physical substrate. Nevertheless, we know only too well how much the psychic function can be disturbed by verifiable processes in the brain, and this fact is so impressive that the subsidiary nature of the psyche seems an almost unavoidable inference. (Jung, 1957/1978, p. 270)

However subtle or "natural" it may appear to us, there is an induction in the reduction of the psyche to the brain, a way of dealing with our ignorance and incompleteness, but a way which also denotes our difficulty in integrating the psychic fact into its radicality. Jung argues that resistance to psychology is due not only to the ghosts mentioned but also to the perception that discoveries in the sphere of the unconscious may undermine the psychiatric knowledge thus far produced. Hence the need for science to refuse the study of less clear boundaries of human experience, and with it also the refusal to investigate what he calls archaic residues of the psyche. Psychiatry and even so-called scientific psychology would fear the unconscious and its numinous character, its autonomy and its productions. This fear would have as a direct consequence the negligence, or even the neglect of the unconscious productions.

The effects of this neglect are quite objective, both individually and collectively. With regard to singularity, neuroses as well as psychoses (and also dreams) are indications of this unconscious activity. Concerning collectivity, wars and other social upheavals are associated with unilateralism that despises the complexity of the human psyche and inhibits part of our impulses in the name of morality, customs, and intellectual fashions (Jung, 1947/1981).

As Erich Fromm states, in the same way that *folie à deux* exists, *folie à millions* also exists (Fromm, 1965/2008). Collective *hybris* is one of the ways that this one-sidedness may assume, thus the objective effects of the psyche may be perceived also in the collective, in the fact that a certain *morbid tendency* gains body, voice and effective actions at a given moment in a given culture (Valois, 1992). Jung ponders that the very spirit of time may provoke the agitation of forces and emotional representations that are easily led to hatred and retaliation (Jung, 1957/1978).

It is interesting to note how Jung's language constantly promotes a simultaneous movement of attachment and detachment in relation to the scientific discourse of his time: he clearly distinguishes the domain of psychology and physiology (Jung, 1928/2002), without ever insinuating that one would be independent of the other. On the contrary, although Jung does not solve the problem of a certain *monistic dualism* present in his theory, the distinction in the mode of functioning of the physical and psychic spheres is associated with a fundamental unit, where there is the use of the concept of *unus mundus*, established by Philo of Alexandria and used by alchemy.

That even the psychic world, which is so extraordinarily different from the physical world,

does not have its roots outside the one cosmos is evident from the undeniable fact that causal connections exist between the psyche and the body which point to their underlying unitary nature. (Jung, 1954/1989, p. 538)

There is no doubt that Jung operated in the field of *Naturwissenschaft*, but it is notorious that his understanding of *Wissenschaft* and *Natur* escapes the canons of his time. His constant quarrel with the ontological assumptions of scientific knowledge shows the complexity of his positioning, and his relation with science could not exist without being tumultuous.

Objective psyche and subjective psyche: the problem of universality in psychology

In the foreword to the second edition of "The Undiscovered Self", Jung (1933/2009) states, regarding this work:

It is not an intellectual building speculative or imagined piece by piece: on the contrary, I have struggled to describe and formulate living, lived, and complex experiences that had not hitherto been the subject of scientific considerations. (p. 19)

In this work, there are two spheres that oppose and complement each other in Depth Psychology: the subjective psyche and the objective psyche (the way Jung calls the unconscious in its impersonal sphere). This is a problem that is throughout Jung's work and is related to a question of his time: to think psychology as a science, formulating general and universalizing judgments is essential. At the same time, as a science of subjectivity, psychology — as thought by Jung and so many of his predecessors and contemporaries — needed to remain as close as possible to the individual experience.

This crossroads gave rise to Jung's criticism (1957/1978) of scientific psychology and his choice for what he calls medical psychology. As it has already been pointed out, laboratory psychology yielded to innumerable ghosts of objectivity which led it to promote unsustainable reductionism from the point of view of the psychic experience that clinical practice provided.

But the question of objectivity remains on the agenda, in a kind of dialectic with subjectivity. If, on the one hand, the unconscious and the structures of the archaic psyche are thought to be universal, the whole Jungian *démarche* is directed towards a gradual differentiation of the collective aspects of the psyche. The more unconscious of the determinants of his/her behavior, the more the person is susceptible to the deleterious effects of the unconscious and to the influence of the masses.

"For the development of personality, then, strict differentiation from the collective psyche is absolutely

necessary, since partial or blurred differentiation leads to an immediate melting away of the individual in the collective" (Jung, 1933/2009, p. 72). This merger with the collective may bring great disagreeable results, says the author. In structural terms, this dialectic of the self and the unconscious is universal, but the actualization of this dynamic is of the order of singularity. Similarly, archetypal images are conceived as empirical data that provide a common substrate for psychic experience, but such images are updated differently in each culture and, within each culture, differently in each individual.

Thus, Jungian theory works in a kind of complementarity between objective and subjective. This, however, has not occurred without difficulty, since Jung recognizes that modern science – as well as religion – is based largely on the refusal of the individual, accusing any tendency towards individualization as subjectivism (Jung, 1945/1983, 1957/1978). Commenting on the Chinese text translated by Richard Wilhelm, "The Secret of the Golden Flower," Jung (1929/1983) states that due to the misérable vanité des savants, a work like this would be deprived of a deeper interpretation, if there were no quality and penetration into the "mysterious vitality of Chinese wisdom" (p. 6), which Wilhelm provided. Jung rises against the intellectualism that would be at the service of an unilateral interpretation, shaped by the Western way of considering the world, which would be in fundamental disagreement with the Chinese way and would therefore lead to a partial, if not ideological, reading of the text. In addition – and here the importance of Jung's study on Chinese philosophy as well as on the treatises of alchemy -, the knowledge transmitted by Chinese thought includes the psyche as the foundation of world's apprehension.

Unlike the ghost of objectivity of modern science, in Chinese thought as well as in alchemical philosophy, subjectivity is a crucial element in the general understanding of phenomena. What is interesting to Jung is that these ways of thinking meet what he has been building in his clinical and theoretical work. What is in question here is the process of individuation, that is, the already mentioned work of differentiation. This does not imply a departure from cultural determinants, but a re-appropriation at a level of greater integrality. Jung notes that the Chinese text, as allegories, points to a process similar to the one he followed in the treatment of his patients. Once again, the spheres of universality and singularity coincide, because a similar psychic experience is represented in different ways in different historical contexts; since this process of differentiation can only be carried out by the individual, submitted to his/her specific determinations.

In discussing Hermetic philosophy and its counterpoint with nominalism, Jung (1945/1983) shows the consequences of one and the other in understanding the fundamentals of the apprehension process of empirical reality:

The empiricist tries, more or less successfully, to forget his archetypal explanatory principles, that is, the psychic premises that are a sine qua non of the cognitive process, or to repress them in the interests of "scientific objectivity." The Hermetic philosopher regarded these psychic premises, the archetypes, as inalienable components of the empirical worldpicture. . . . The empirical nominalist, on the other hand, already had the modern attitude towards the psyche, namely, that it had to be eliminated as something "subjective," and that its contents were nothing but ideas formulated a posteriori, mere flatus vocis. His hope was to be able to produce a picture of the world that was entirely independent of the observer. This hope has been fulfilled only in part, as the findings of modern physics show: the observer cannot be finally eliminated, which means that the psychic premises remain operative. (pp. 288-289)

The author is not simply criticizing empiricism. The fundamental critique that he presents at this point is the exclusion of psychic processes as part of our experience of the world and as an inherent and fundamental element in any empirical process of knowledge construction.

The radical cut between subject and object, with consequent prevalence of the latter, shows how much science was full of ideological conceptions, or, more properly, influenced by explanatory principles whose roots remain largely unconscious to the heralds of scientific ideology. In this way, "we see how the spokesmen of so-called objectivity are defending themselves with similar outbursts of affect against a psychology that demonstrates the necessity of psychic premises" (Jung, 1945/1983, p. 289).

Not without a trace of irony, Jung shows how the passionate defense of objectivity is motivated by subjective elements and by a certain intellectual inertia that comes from a world view accepted without further questioning. In other words, the very attempt to eliminate subjectivity causes it to surface immediately. And this does not only apply negatively: modern physics, Jung recalls, had been replacing the question of subjectivity in the process of knowledge. It is important to note that in the final conceptual developments of his work, Jung was accompanied by Wolfgang Pauli, Nobel Prize in Physics in 1945. As the oriental and alchemical thoughts, the new physics was for Jung (2003) another way of translating the psychic dynamism:

Some people are now being told that something is "simply psychic, as if there was something that *was not psychic*. . . . The presence of objects depends entirely on our representation, and "representation" is a psychic act. But today saying "simply psychic" is tantamount to saying that it is "nothing." In addition to psychology, only modern physics had to

recognize that no science can progress without the psyche. (p. 196)⁶

It is impossible, therefore, to escape from the psyche. And this does not mean a radical subjectivism, both because there is an objective dimension of the psyche and because there is no radical cut between singularity and universality. Above all, it is a matter of differentiation. And the parallel with physics shows clearly how much Jung considered the problem of the psyche within a reflection of *Naturwissenschaft*. The scientific attitude was flawed, according to the Swiss psychiatrist, precisely because it did not include the psyche in the description of the totality of nature.

Final considerations

But, after all, of what nature is Jung talking about? What kind of naturalism is on the agenda, which is not only a matter of methodological naturalism but also opposes the presuppositions of modern science?

Some points may be highlighted in order to better understand his position: Jung reiterates that he is not talking about substances by using concepts such as unconscious and archetype. This would lead him to metaphysics, and, for him, the question is more at the level of *ordering principles*. This is also to say that, as far as possible, he abstains from inferences about the ultimate nature of the psyche. At the same time, through paradoxes and a logic of limits, Jung leads us to see that statements about the structure and psychic functioning are precarious and do not translate the totality of the phenomena that present themselves both in the clinic and in the culture.

The insistence of materialism on reducing the psyche to biochemical processes and the spiritualist position that affirms a transcendent essence are equivalent ways of metaphysics. "Both views, the materialistic as well as the spiritualistic, are metaphysical prejudices. It accords better with experience to suppose that living matter has a psychic aspect, and the psyche a physical aspect" (Jung, 1958/1978, p. 411). A unitary nature is therefore affirmed. What is implied here is the existence of a certain stratum of this nature in which matter and psyche are indiscernible.

Another relevant point is that in Jung's thought there is no radical cut between nature and culture. It is rather a *continuum* that presents itself in different modes of expression, specializations of the same process, which justifies thinking the psyche as a "natural being" that is necessarily structured out of the culture and the experience of the individual. This is shown especially through psychic phenomena ranging from symptoms to

⁶ Letter to Pastor Tanner, dated February 12, 1959. In another letter dated August 10, 1960, Jung (2003) states: "There are two sciences in our day that are directly involved with the basic problems: nuclear physics and the psychology of the unconscious" (p. 277).

dreams, in which the interpenetration of personal and impersonal strata of the human being would be shown more precisely:

The evolutionary stratification of the psyche is more clearly discernible in the dream than in the conscious mind. In the dream, the psyche speaks in images, and gives expression to instincts, which derive from the most primitive levels of nature. Therefore, through the assimilation of unconscious contents, the momentary life of consciousness can once more be brought into harmony with the law of nature from which it all too easily departs, And the patient can be lead back to the natural law of his own being. (Jung, 1934/1985, p. 160)

We can discern here a language that tends to adapt to the naturalistic discourse of his time, but there is something beyond. Thinking of evolutionary strata, of instincts, was not alien to the scientific thought of the early 20th Century. But, why should we suppose that the actualization of instincts would lead us to "harmony" with natural laws? Why would this have a therapeutic effect?

In order to better assimilate these Jung's statements, it is necessary to take into account that his understanding of psyche pointed to a movement of synthesis. In his view, the psychic processes are finalists, they operate not only on the basis of a blind logic of causes and effects that are concatenated, but also from valences that aim at an end. This does not imply voluntarism, although it includes intentionality, but it is largely unconscious (hence Jung's equivalence between the objective psyche and Schopenhauer's theory of the will, as well as his interest in Bergson's élan vital^[7]).

In addition to the idea that the unconscious is a natural being, statements such as that of an unconscious knowledge – which, by the way, may put the person at risk and "become dangerous" (Jung, 1917/1977, p. 115) -, or that the "unconscious anticipates facts" (Jung, 1952/1981, p. 493), put them in a register very distinct from a methodological naturalism. There is a sense of "healing" in the very working of the unconscious. And here the idea of healing gains complex contours, since it is related to "restoring the person to its entirety" (Jung, 1938/2005, p. 190), a process that implies the effort of differentiation mentioned earlier and which is not directly related to the idea of suppression of symptoms, as a causal reasoning might aspire to. It is a process almost of the order of an exegesis of oneself, undoubtedly a path that resembles the "pilgrim's progress" (Jung 1999, p. 35).

"A negative attitude to the unconscious, or its splitting off, is detrimental in so far as the dynamics of the unconscious are identical with instinctual energy. Disalliance with the unconscious is synonymous with loss of instinct and rootlessness" (Jung, 1917/1977, pp.115-116). A few years later, Jung (1933/2009) went on arguing in a very similar way. Analyzing a clinical case, the Swiss psychiatrist states: "If he can deceive everyone around him, he cannot deceive himself, and his soul will laugh at this farce. . . Only a healing force exerts what we truly are" (pp. 105-106).

These affirmations on the edge of moral judgment cause some perplexity, since Jung's propositions are far from being framed in moralism. On the contrary, Jung does not fail to point out moralism as a form of alienation and, ultimately, as identification with the collectivity, which goes against his proposal of differentiation. But there is here, and at other times also, a kind of precept that perhaps could be approached more to a *visceral ethics*. In this perspective of naturalism, instinct and archetype present themselves as complementary structures of organization of our ways of life, both immersed in an uncertain horizon, inapprehensible and unknowable in its totality, but still have certain vectors and determinants.

If we return to the idea that the unconscious coincides with instinctual energy and that tendency is a way of self-appropriation (according as the deviation from this coincidence –which is almost a condemnation of cultural life – corresponds to some level of alienation), we will see that this perfectly matches von Hartmann (1869/2006): "The unconscious thought is always absolutely assured of taking the good part, or rather, the slightest possibility of doubt is not conceived in it. Unconscious thinking almost infallibly captures the good portion and at the precise moment" (p. 147).

Other aspects of Von Hartmann's thought were also widely debated by Jung: the idea of an unconscious knowledge; the intrinsic connection between unconsciousness, affection and representation; mysticism as a spontaneous manifestation of the unconscious (which would be more appropriate to be thought from mythology in Jungian language); particularly the assumption that the unconscious has a purpose, acting in the sense of healing; and that it is a phenomenal manifestation of the *Oneness*, according to von Hartmann (1869/2006). It is notorious the possible approximation between this figuration of the world as Oneness and that of *Unus Mundus*, used by Jung to think the farthest, hypothetical strata of the unconscious.

This idea that nature acts in the direction of healing is not new either, and if we look at the sources used directly by Jung, we find its support in Paracelsus, a sixteenth-century physician and alchemist. Although Paracelsus (1527/1950) also placed his medical practice on the empirical approach, we can find in one of his texts on alchemy something that is of the order of what underlies the work of the physician:

Jung quotes Schopenhauer at various moments in his work (1911/1999, 1913/1989, 1933/1978), always to show certain similarities between the philosopher's proposal and the modern notion of the unconscious, the latter being fruit of empirical research. Bergson began to appear in Jung's works from 1907 and accompanies him throughout his theoretical course.

Nature is so subtle and skillful in these things that it cannot be neither apprehended nor understood without great effort, for it does not produce anything that is not perfect in its purpose, but it is necessary that man perfects everything and this perfection is called Alchemy: the alchemist is like the baker who cooks the bread, or like the winemaker who crushes and presses the grape to produce wine. Thus, when nature produces something useful to man, it is the alchemist who prepares it and makes it ready for use. (p. 15)

Paracelsus also understood that faith and imagination can make us equally healthy or sick, and that "it is necessary to have faith in the work of the physician" (p. 39). We are not far from countless discoveries by psychologists of the late 19th Century. The unconscious, which is the central element of reflection in Depth Psychology, rescues – in other words, with other procedures and based on another worldview – intuitions that were transmitted from generation to generation.

There is a possible trajectory between Paracelsus and the medical thought of Romanticism, as we can

see in Carus (Carus, 1846; Béguin, 1991; Noah, 2015). From this to Von Hartmann and Jung, the pace is even shorter. They are all connected by a philosophy of nature which, if still highly speculative in Paracelsus, becomes increasingly grounded in experience as we move forward in the 20th Century. As Albert Béguin (1991) reminds us, there is an immense difference between Carus and Jung, an evident progress represented by the experimental knowledge that has been acquired and by the methods used by the Swiss psychiatrist.

In any case, Jung's empiricism is careful not to empty the intuition that nature has something to say, even though it is necessarily by culture and, therefore, by language. He just takes care not to take the part for the whole, nor embark on adventures – which would be disastrous – in order to show the origin of the psyche. It is true that throughout his work Jung ends up producing some paradoxes, and if the paradoxes of his texts are not the result of a deliberate strategy but a consequence of the confrontation with the unconscious, they contribute decisively to keep the psyche as *an object of incessant perplexity*.

Entre filosofia e ciência: o problema do naturalismo na psicologia de Carl Gustav Jung

Resumo: O pensamento de Carl Gustav Jung é marcado pela complexidade e por um diálogo contínuo entre ciência e filosofia. Seus posicionamentos teóricos, por vezes incompreendidos, levaram-no a constantes embates em defesa do empirismo e dos fundamentos do pensamento científico moderno, muitas vezes através da crítica a pressupostos que ele considerava indemonstráveis. Essa trajetória apresenta, todavia, uma série de dificuldades. Através da noção de naturalismo, este ensaio busca indicar uma via de análise dessa complexidade. Com efeito, podemos discernir duas noções distintas, mas complementares de naturalismo na obra de Jung: um naturalismo metodológico, que o mantém próximo do pensamento científico de sua época, e um naturalismo ontológico, que o alinha ao pensamento romântico e à *Naturphilosophie*, implicando considerações teóricas que o distanciavam de seus contemporâneos. Coordenar essas duas visões do naturalismo foi certamente um problema para Jung, e é um desafio para a compreensão de seu pensamento.

Palavras-chave: C. G. Jung, história da psicologia, naturalismo, filosofia, ciência.

Entre science et philosophie : le probleme du naturalisme dans la psychologie de Carl Gustav Jung

Résumé: La pensée de Jung est marquée par la complexité et le dialogue entre science et philosophie. Ses prises de position, maintes fois mal-comprises, l'ont conduit à des efforts pour défendre l'empirisme de ses démarches et les fondements de la pensée scientifique, en employant une critique à certains partis pris, tenus pour indémontrables, de la science moderne. Cette trajectoire présente cependant des difficultés. En utilisant la notion de naturalisme, ce travail cherche une voie d'analyse de cette complexité. En effet, on peut discerner deux notions parallèles de naturalisme chez Jung: un naturalisme méthodologique qui l'approche de la pensée scientifique de son époque; et un naturalisme ontologique, héritier du Romantisme et de la *Naturphilosophie*, qui implique des considérations théoriques que l'ont tenues un peu à l'écart des ses contemporains. Coordonner ces deux notions a été un problème pour Jung et il s'agit d'un défi pour la compréhension de sa pensée.

Mots-clés: C. G. Jung, histoire de la psychologie, naturalisme, philosophie, science.

Entre la ciencia y la filosofía: el problema del naturalismo en la psicología de Carl Gustav Jung

Resumen: La complejidad y el diálogo entre ciencia y filosofía es una importante característica de la obra junguiana. Sus posiciones teóricas, muchas veces mal entendidas, han llevado a esfuerzos para defender el empirismo de sus acciones y las raíces

del pensamiento científico, a través de una critica de ciertos presupuestos, considerados indemostrables, de la ciencia moderna. Sin embargo, este camino presenta dificultades. Bajo el concepto de naturalismo, este trabajo busca una forma de análisis de esta complejidad. De hecho, uno puede discernir dos nociones paralelas de naturalismo en la teoría junguiana: un naturalismo metodológico que lo acerca del pensamiento científico de su tiempo; y un naturalismo ontológico, heredero del romanticismo y de la *Naturphilosophie*, que implica consideraciones teóricas que lo han mantenido un poco al margen de sus contemporáneos. Conjugar estas dos nociones ha sido un problema para Jung y es un desafío a la comprensión de su pensamiento.

Palabras clave: C. G. Jung, historia de la psicología, naturalismo, filosofía, ciencia.

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