U

Unconscious in Psychology

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Abstract

The concept of the unconscious in psychology (or unconscious mind) summarizes the complexity of the dynamics that characterize most of human's mental functioning. Since the paradigmatic revolution of the late nineteenth century, questions such as how the unconscious world is structured, how it influences cognition, emotion, motivation, and behaviors have pushed theoretical reflections and scientific research forward, always suggesting new reinterpretations of the concept itself. In particular, its impact on psychotherapy fostered the creation of different models and conceptualizations for treatment about the dynamics of the therapeutic relationship and the individual's mental functioning. Focusing on the realm of the unconscious mind inevitably opens the gates to the possible, encouraging the formulation of new vocabularies and taxonomies. This contribution offers a definition and a historical framework for the idea of the unconscious in the field of psychology. Then, from a brief review of the leading scientific research questions related to this concept, it reflects on the implications for clinical work and its associations with the possible in the therapeutic relationship. Insight and "aha" moments, creativity, nonlinear dynamics, and approaches that combine the advancements of neuroscience and psychoanalytical contributions are just some of the theoretical and applicative branches that boldly ventured to "think the unthinkable."

Keywords

Unconscious · Collective unconscious · Cognitive unconscious · Possible · Psychology · Psychoanalysis · Insight

The idea of the unconscious (or unconscious mind) encompasses all the aspects of the way the mind works that the individual cannot grasp on a conscious level, thus reflects on them. Indeed, unconscious processes significantly influence motivation, memory, emotions, and in general everyone's sense of self and identity (see chapter "▶ Consciousness"). Although the term unconscious is relatively modern due to the contribution of philosophers such as Leibniz (1765) and Schelling (1800), the idea of the existence of elusive aspects of reality, which go beyond conscious reflection, is far from unknown in the history of art, religion, music, and of course philosophy. Indeed, the end of the nineteenth century

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represented an ideal cradle for the development of a more structured reflection on the unthinkable processes of the mind. The advent of non-Euclidean geometries, Schoenberg's atonal experimentations, expressionism in figurative art and poetry are just some of the examples of an era in which new models do not merely substitute old ones. In fact, from the cracks that weakened previous paradigms once used to understand reality, it was possible to conceive new and extraordinary worlds in science, literature, and the arts. It is not surprising that on these bases, the then still young discipline of psychology began to try to find suitable answers to the questions revolving around the activity of the unconscious mind and how it influences cognition, emotion, motivation, and behaviors (Ellenberger 1970; Kandel 2012).

Starting from the Freudian contribution (see chapter ▶ "Freud Sigmund"), this entry will define the concept of the unconscious in psychology and its historical roots. Moreover, it will provide a brief overview of research contributions on this topic, focusing on its impact on different dimensions of the mind (i.e., cognition, emotion, motivation, and behavior) as well as recent and challenging conceptualizations such as neuropsychoanalysis. Finally, it will suggest a reflection on the most stimulating connections between the unconscious and the possible in psychotherapy, starting from the contributions on insight-like phenomena, creativity, and nonlinear dynamics in the therapeutic relationship (Lis et al. 2007) (see chapter ▶ "Psychotherapy").

Definition and Historical Roots of Unconscious in Psychology

The etymology of the word un-("not") conscious stems from the Latin word *conscius* ("knowing, aware") from the verb *conscire* which assimilated *con* ("with") and *scire* ("to know").

The idea of "knowing" without actually "knowing" opens the doors of a paradox that is indeed only deceptive, de facto letting us conceive the possibility of an inner world of meanings (i.e., emotional, motivational) that moves within us without the consciousness being able to access it. The paradigmatic revolution, already mentioned above, represents the trigger that finally opened the gates to the exploration of the unconscious world.

Indeed, at the end of the nineteenth century, clinicians actively engaged in discovering the different mechanisms underlying the normal and pathological functioning of the mind (see chapter ▶ "Psychopathology") but one decisive contribution was Sigmund Freud's that, in his famous volume *Die traumdeutung* ("The interpretation of dreams," 1900) theorized the existence of the unconscious, a part of the human mind in which our deepest desires, needs, and feelings are hidden.

Freud used the apt metaphor of an iceberg to describe the three parts that define the structure of the human mind: only a small part of the iceberg floats out of the water representing the conscious mind, as a layer immediately under the surface is the preconscious mind, while the greater portion of ice, hidden from the conscious world above, represents the unconscious mind. As the conscious mind contains all the elements of which we are aware, which we can have a mental representation of, the preconscious mind retains all that is out of our consciousness but can quickly become conscious given a small effort of attention or remembrance.

However, this model's real innovative contribution was the idea of the unconscious mind, where all of the most important desires and fantasies flourish, free from most of the constraints that regulate the functioning of the other two parts of the mind. Indeed, the unconscious objects and often conflicting forces are trapped from the possibility of introspection, held prisoners by our inner censorship because of their unacceptability: thus, all these unconscious elements create mental energy that needs to be freed. In the same essay, Freud explains how, during the nightdream, the unconscious material is represented through different images to the individual's awareness though still transfigured by the influence of different mechanisms of the psyche (see chapter ▶ "Dreams").

Moreover, in 1901 Freud publishes "*Zur Psychopathologie des Alltagslebens*" ("The

psychopathology of everyday life") in which he introduced what he calls slips as representations of the conflicts that happen in the unconscious mind. In this essay, Freud discusses the idea that there are specific deviations in everyday behaviors, such as forgetting things, or saying one word instead of one another, or other random actions are clear signals of our inner turmoil. We usually do not notice these kinds of mistakes, but thanks to the psychoanalytical method, this material can be analyzed to understand our most profound nature better.

Later on, in "*Das Ich und Das Es"* ("The Ego and the Id"; 1923) Freud suggested a second model for the structure of the mind in which the unconscious still played a fundamental role in the definition of inner conflicts and psychopathology. All in all, the Freudian model signified an unprecedented stimulus in exploring the complexity underlying human behavioral phenotypes.

Another relevant contribution to the comprehension of the unconscious was Jung's conceptualization of the collective unconscious (1912). Although Jung distanced himself from the International Psychoanalytical Association's dogmatic theories, his theorization of the collective unconscious is still considered one of the most critical contributions in psychoanalysis.

Jung brought up the idea of the collective unconscious by analyzing some delusional processes in schizophrenic patients, suggesting the existence of an immutable common representative knowledge heritage that transcends time and space and is acquired indistinctly by all humankind. Jung identified two fundamental elements to describe the collective unconscious: instincts, intended as all the natural reactions that did not come from learning, and archetypes, meaning representational contents that belong to all humankind. However, Jung was not completely satisfied with his theorization as, in "*Wandlungen und Symbole der Libido"* ("Psychology of the Unconscious"; 1912), he stated that there is no hereditability of the specific representations, but there is hereditability of the possibility of representations.

Another fundamental intuition was Bion's idea of the inaccessible unconscious a fourth category of the psyche added to the three of Freud's first model, which stores all the mnestic traces of intrauterine life, including primitive traumatic experiences of frustration that cannot be mentally represented. Bion (1962) introduced the concept of Beta elements, that is, raw emotions representing primitive experiences that we cannot think about or even transform in dream-like materials. Nor the conscious or the unconscious mind can store these elements: it is the Alpha function that transforms these basic feelings in elementary representations of mental contents that we can think of (Alpha elements).

In opposition to the psychoanalytical standpoint that was very popular in psychology during the Fifties of the twentieth century, cognitive approaches to psychology began to gather empirical evidence on mental processes and their functioning. An essential limitation of the Freudian unconscious concept was the impossibility of observing, manipulating, and measuring it in its components through the scientific method. Things started to change thanks to a seminal contribution from Nisbett and Wilson (1977) that explored from a cognitive standpoint to what extent we can be aware of the reasons behind human behaviors. At a time when higher functions of the mind, such as behavior, were processes that could only be explored by consciousness, the idea of being able to "telling more than we know" opened a crack in the cognitive paradigm, allowing the science of the mind to develop its exploration of the dynamics and features of the unconscious mind.

Hence, a decade later, Kihlstrom (1987) theorized and empirically analyzed the so-called cognitive unconscious. In his innovative work, he demonstrated how cognitive functions such as memory and perception could occur outside the individual's consciousness. Indeed, he demonstrated that many mental processes that pertain to a more procedural knowledge happen outside of the realm of awareness and are activated without any introspection. One of the most common examples in psychology about procedural memory is the ability to ride a bike: once learned, we cannot think about it and divide it in sequences of

actions because it now belongs to the cognitive unconscious.

This brief historical excursus lays the foundations for understanding how research has tried to explore the unconscious processes of the mind. Indeed, the introduction of the cognitive unconscious allowed to methodically approach the exploration of the more deeply submerged part of the Freudian iceberg, highlighting some pivotal questions to which the research of the following decades will try to give an answer: what cognitive processes must we study to understand the unconscious dynamics of the mind? How much of our conscious life is influenced by unconscious processes? What are the implications for clinical practice and psychotherapy? These are just some of the burning questions that have driven scientific research since the second half of the twentieth century.

Research on Unconscious in Psychology

> Freud, like Elvis, has been dead for a number of years but continues to be cited with some regularity.
> Westen (1998)

As Drew Westen wrote in 1998, reflecting on the scientific legacy of psychoanalysis and acknowledging and focusing on the unconscious lead to three radical shifts: first, the cognitive revolution that put at the center of scientific reflection the study of mental processes, even unconscious ones; second, the developments of psychoanalytical thinking to explain how our inner world develops (adaptively or not) according to sociocultural contexts and experiences; and last but not least, the epistemological shift that has allowed us to explore the processes of the mind in the light of emotions and motivation, two central components of the psychoanalytical contribution.

This brief overview of the literature summarizes some of the main directions in which research explored the mind's implicit dynamics.

Starting from Kihlstrom's conceptualization of the cognitive unconscious, scientific research, despite the disagreements with the psychoanalytical theories, recognized that most mental processes are unconscious. In particular, cognitive science has long and thoroughly explored aspects related to the functioning of implicit memory, that is, that part of memory that can be observed in behavior but cannot be recalled consciously. One type of memory, already mentioned above, is procedural memory that stores all the "instruction manuals" that allow us to perform the most diverse actions and tasks without thinking about them. Another example of unconscious (implicit) memory is the one that emerges from priming experiments where previous exposure to a stimulus (prime) that is associated with meaning allows us to acquire new information more quickly (Bargh 2006). An exciting research area on the cognitive unconscious explores the processes of learning and re-elaboration of information that has its basis in the most recent theories on neural networks and implies the presence of unconscious processes in the learning of new information as in problem-solving and decision making. All in all, numerous contributions from neuropsychology research involving patients with specific brain damage and research on priming from social psychology exhibited evidence for the human ability to perform complex behaviors unconsciously. This underlines how the scientific community readily accepted the existence of unconscious cognitive processes (Bargh and Morsella 2008).

However, a few years will pass from Kihlstrom's initial contribution for research to explore the other two crucial dimensions that Freud theorized as primary forces of unconscious functioning: emotion and motivation. Kihlstrom et al. (2000) suggested the existence of two processes behind the observable effects of unconscious emotions. First, they theorized the existence of "unconsciously generated emotions" that encompass all cases in which the individual can experience and recognize his or her emotional responses, but cannot trace back their unconscious causes (e.g., memories, thoughts). A simple example of unconsciously generated affects in clinical psychology is in individuals that suffer from anxiety: A specific characteristic of these manifestations is the full awareness of the emotion arising (e.g., fear of dying) without the possibility of a direct connection with the mental states that

caused it. Second, Kihlstrom and colleagues defined the case of "implicit emotions" where the subject is not aware of his emotional states or otherwise able to recognize them, even though it is possible to detect the emotional activation in the brain through specific techniques. Indeed, since the study of consciousness (and non-consciousness) is not possible in animal models, the advancement of brain process investigation techniques has been a driving factor in research on emotions and their regulation. Scherer (2005) defines them as "the bulk of the iceberg," underlining how most of our emotional functioning interchanges on an unconscious dimension. Numerous studies on the contribution of brain areas such as the amygdala have demonstrated the subsistence of these processes (Smith and Lane 2015).

Another aspect, perhaps the most radical of the Freudian theory, was putting motivation within the unconscious processes: This implied the fundamental assumption that "the why" of our actions, thoughts, and behaviors pertains to an unthinkable dimension. Thus, the root of who we are, our self and identity, stems from the unconscious. The debate between psychoanalytical theories and cognitive sciences witnessed the latter rejecting this possibility for a long time. On the other hand, phenomena such as defense mechanisms are clinical examples of how individuals protect themselves from unconscious desires and motivations.

In 1989, McClelland suggested the distinction of implicit and explicit motives, highlighting the difference between research on motivation through indirect methodologies (e.g., projective measures) instead of self-reports: the former has shown a higher value of predicting behavioral outcomes. It makes sense that what is measured associatively (i.e., implicitly) instead of self-reported is less influenced by other variables (i.e., individuals might be unwilling to show their real motives or may even be unaware of them). Moreover, research on attitudes has made valuable contributions by showing how (unconscious) prejudice guides social behavior. Betsch et al. (2001) explored a theory that explains how our evaluations are implicitly formed, preserved as mnestic traces, and used to judge specific targets. The underlying hypothesis is that our implicit value attributions (value accounts) influence the way of expressing an evaluation more than the traces of past experiences, especially under pressure. Recently, Kihlstrom (2019) reviewed the evidence that motivation, similarly to emotions, works on an unconscious level in different ways. First, it can be elicited unconsciously by external stimuli. Second, it can be elicited unconsciously by external stimuli that are also unconscious. Finally, the individual can be "aware of not being aware" of his/her motivations.

It will take about a century for psychoanalysis and the advancements of neural science to finally cross paths. With the advent of neuropsychoanalysis (a term coined only in 1999), research finally manages to resolve the epistemological dualism between psychodynamic and neuroscientific traditions. In this sense, the search for the neural bases of the unconscious represents a fundamental step.

Mark Solms (2017), a neurologist but also a psychoanalyst, represents one of the exponents of this new paradigm, providing data on the location of the unconscious within the functions of the brain. A central aspect of the contribution of neuropsychoanalysis is the centrality of emotions in the organization of psychic life. While the cognitive approach to unconscious was unbalanced on aspects related to information processing, the shift to emotional aspects represents a radical change. Experience is processed and elaborated through a first instantaneous, subcortical, phylogenetically embedded response that immediately tells us (without us being able to perceive it) if a stimulus is threatening our survival. Subsequently, the stimulus is elaborated in a more sophisticated way on a cortical level, drawing on the mnestic traces that are already present. In this way, neuropsychoanalysis shows how most of our mental life takes place at an unconscious level, at the very basis of that iceberg that Freud had first imagined.

Research on the unconscious theorized as a set of implicit processes that encompasses cognition, emotion, and motivation has allowed substantiating the most important Freudian intuition. That is,

most of mental life happens without us thinking about it, and the unconscious universe, which influences our choices and behaviors, is complex and fascinating. We will discuss some of the clinical implications of these considerations in the next section.

Unconscious and the Possible: Insight, Creativity, and Nonlinear Dynamics

> In the dance we need to have a moment of waiting, not knowing what is coming next (the moment of *maybe*) for the dancing to be real. What we do next *is not known,* in a sense *does not exist* until the two partners construct it, each with his or her separate roles.
> Bucci (2011)

Some of the initial questions of this contribution have already been answered thanks to the data and considerations emerging from research and theories on the unconscious: a large part of the human mental activity takes place beyond consciousness, and different dimensions contribute to it (i.e., cognition, emotion, motivation). The question that still needs an answer (at least one among the possible ones) is what are the implications that scientific discoveries coming from cognitive sciences, neuroscience, and psychoanalysis have for clinical practice and, at large, for a framework of thinking on the human mind. Freud suggested some of them in his psychopathology of everyday life, as well as with the introduction of the dynamics related to transference (where the patient projects thoughts, feelings, and emotions from a past relationship onto the therapist), countertransference (where the therapist "resonates" of the patient's inner world), and dream analysis.

Allan Schore, one of the pioneers of neuropsychoanalysis, carried forward the concept of the implicit self, arguing that in addition to memory, thought, learning, and attention (all the processes highlighted by cognitive psychology), it is necessary to introduce the notions of implicit affect, implicit communication, and implicit self-regulation. As already anticipated in the previous section, the role of implicit emotion is one of the central aspects of the contribution of neuropsychoanalysis: Adding communication and self-regulation to the equation fosters a thorough reflection on the impact of unconscious dynamics in psychotherapy. Indeed, the therapeutic relationship becomes a privileged place of observation of the "relational unconscious" as it is guided by the right hemisphere of the brain, working via associations and primary processes that we can also find in dreams and reveries (Schore 2011).

Indeed, it is in the therapeutic relationship that a fundamental manifestation of unconscious processes finds its place, the so-called "aha" moment in which new and unexpected elements come to light. As pointed out by Domash (2010), insight (which is "seeing/understanding from within") frequently occurs in cases where stagnation is perceived, from the feeling that the therapeutic process is somehow facing an impasse. This is similar to a cognitive restructuring that includes the emotional experience and marks a decisive point in the perception of the context and its meanings. Neuroimaging studies have shown that insight is a creative act that emerges from consciousness by bypassing logical reasoning (ibidem). Thus, the link between unconscious and creativity finds its possible manifestation in the psychotherapeutic relationship: the generative effort that allows the passage from one state of the mind to another unrelated requires an implicit intuition, embodied and embedded in experiential knowledge.

The understanding of creative processes in the therapeutic relationship, as well as in other contexts, unfolds through the subjective narration of the experience itself (the "aha" moment). As Nancy Andreasen explains:

> The person is typically in some type of reverie or dissociative state when the mind wanders freely, and thoughts and images float around without censorship. During this fluid time, the brain is probably working feverishly, despite the subjective sense of reverie and relaxation. [...] As we think about this process using the terminology of mind and brain, then the primordial soup is the unconsciousness and process of making connections must arise from the efforts of the association cortex. (2011, p. 45)

Since the end of the twentieth century, the theory of psychotherapy has seen a significant

revolution in the adoption of an interpersonal perspective. In this way, a significant gradient of complexity has been added, shifting the focus not only on the patient and the therapist's internal dynamics but also on their interaction within the clinical relationship (Locati et al. 2017; Benzi et al. 2020). Thus, implicit processes that were previously a subjective dimension become shared implicit processes and, therefore, need new models to be explored. An intriguing perspective is offered by the theory of nonlinear dynamic systems that describe the processes of change, adopting a multifaceted perspective where every element considered is context-sensitive and varies upon different degrees while interacting with other elements. Borrowing the language of physics, Stolorow (2013) describes the process of change in psychotherapy within the intersubjective relationship as nonlinear, unpredictable, and discontinuous and proposes a fascinating conceptualization of processes (even unconscious) in the therapeutic relationship.

Within the psychoanalytical framework, Bucci (2011) suggested an innovative model of psychopathology that focused on dissociation and stressed out the importance of the interpersonal relationship in psychotherapy, rooted in the advancements of both cognitive and affective neuroscience. This framework underlines the hypothesis that "in the treatment, the subsymbolic communications potentially open new connections to the symbolic mode, which then feedback to deepen the subsymbolic explorations, and new, emergent shared schemas are constructed" (ibidem, p. 45) (see chapter ▶ "Symbolic Function"). Overall, beyond the theoretical milieus, a crucial focus of the psychotherapeutic relationship is the possibility of bringing manifestations of the unconscious to the surface in order to integrate them into the patient's experience (Craft 2014; Benzi et al. 2018).

This brief excursus reviews some of the main developments on the unconscious in psychology. Within different theoretical paradigms, the exploration of the "unthinkable" world has allowed us to advance in the mind's knowledge, even the conscious one. Therefore, the great challenge for researchers, clinicians, and anyone who ventures into the understanding of the functioning of the unconscious mind is to be able to imagine a universe that runs with different rules, nonlinear and unpredictable, but above all, is to find the right tools to be able to describe it.

Studying the unconscious requires a creative effort in itself and the willingness to explore impossible routes, at least on paper.

Cross-References

▶ Consciousness
▶ Dreams
▶ Freud Sigmund
▶ Psychopathology
▶ Psychotherapy

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