Review

Chaos theories, which rule the laws of nonlinear dynamical systems, have been extensively used in fields such as physics, biology, and meteorology since the 1960s. However, it is only recently that they are starting to be translated for application in the field of psychology. Dr. Almendro, a clinical psychologist based in Madrid and Barcelona, makes a rigorous step forward in this complex translation [1].

The first part of the book includes a comprehensive review of different perspectives on the human psyche. Starting from such early and fundamental works as those by Plato, Almendro integrates the ideas of these texts with those of modern chaos theories. He then reviews the contributions of key authors, such as the Nobel laureate Ilya Prigogine, and the emergence of relevant theories, like that of Humberto Maturana and Francisco Varela's theory of autopoiesis, which in turn led to the contemporary paradigm of embodied cognition. We appreciated how Almendro rescues many earlier foundational authors from the limbo of indifference, thereby bringing this wisdom to bear upon contemporary issues. In this way, his work overcomes the academic exclusivism that often obsessively rules scientific publications in the field of psychology. Sadly, such exclusive tendencies constrain creative thought within a bubble of the latest publications. This is especially important because Almendro deals with issues that extend “beyond time,” and thus his research base mirrors the theories that he is engaging. In other words, chaos psychology is not merely proposed as a new branch of psychology, in dry and abstract terms, but is brought to life and applied in the very structure of his writing.

This book guides the reader through a critical view of the complex arena of the history of psychology as a science, pointedly questioning the ability of deterministic approaches to fully capture the nature of the human psyche. The book’s main criticisms are aimed at the fact that these approaches perceive human beings as simple, closed, and determined systems. In contrast, Almendro proposes that we view human beings as open, complex, and dynamical systems to which chaotic laws, structures, and processes apply.

We found the book’s core novel contribution to be Almendro’s development of the concept of emergent crisis. In his words, “Emergent crisis has to do with a sudden, unexpected, uncontrollable, chaotic mutation that produces a rupture in the continuity of a person’s existence (p. 259).” This crisis is viewed as an opportunity and not, as is the case in much of clinical psychology today, a mere meaningless disease. To uncover the opportunity the crisis needs to be respected and explored, and not considered a “destructive process that has to be stopped using suppressive, chemical, or psychological techniques (p. 259).”

In this sense, Almendro alerts us to the risks of classifying symptoms as either “normal” or “pathological,” as if they corresponded to stable and unstable, depending on their adaptation to a supposedly agreed upon taxonomy. In the deterministic perspective a client’s symptom, understood as an agent breaking the symmetry and linearity of a “consensual normality,” needs treatment in order to be suppressed. Conversely, Almendro claims that the symptom bears valuable and unknown information, a signal from another frequency that—in addition to breaking the symmetry—if uncovered will reveal a deep level of meaning that in turn leads to healing and psychological growth. Instability does not constitute something to avoid per se; rather, it provides a quantum of energy for the transformation of an old psychic organizational structure. This structure is thus reborn into one that is new and more evolutionarily advanced. Hence, a suppressive treatment may not be the most appropriate one for a symptom that acts as a messenger and a signal, a prelude to a process of differentiation. The reason that this differentiation occurs is a result of the symptom breaking the stability and making a differentiation mark. This mark then distinguishes between the “before” and “after” of its emergence, acting as the precursor to a process that holds an innate evolutionary direction. This perspective runs counter to, and, as Almendro argues, constitutes the true foundations of what he calls the positivization of the pathological—the unfortunate trend of determinism in much of contemporary psychiatry and clinical psychology.

Other key contributions are those related to the vortexes and dissipative structures that emerge out of Prigogine’s work. In particular, we found the SIB (Sensitivity-Instability-Bifurcation) vortex to be particularly interesting. While not an easy concept to grasp, the SIB vortex is based on theories in chaos and complexity theory that are utilized to reflect the structure of psychological process. The SIB vortex suggests that when bifurcation (psychological change) does not take place it is because instability has not reached a sufficient quantum of energy, so fluctuation is present, as in the movement of a pendulum, but the fluctuation stabilizes. By stabilizing, no bifurcation occurs and the system does not develop into a new one. In terms of attractors, a term from dynamical systems theory that reveals the ends towards which a system will evolve, the classic attractor ends in a similar state and does not change (the fluctuation stabilizes), but the strange attractor, also discussed by Amendro as a chaotic fractal, is able to truly bring instability to the system. This instability drives the system to circulate around in apparently chaotic routes, yet it ultimately gives rise to novelty for it hosts the potentials of bifurcation and transformation.

From this standpoint, Almendro introduces the concept of armor in order to move towards a model of the human personality that is grounded in chaos theory. In his understanding armor is composed of...
a psychosomatic structure of fractals, which create pathways of energy that are centered upon a unifying locus: the attractor. Numerous clinical examples of working with a client’s armor are presented, each one drawn from Dr. Almendro’s broad (more than 30 years) experience. Almendro concludes by recognizing the need for more empirical research to validate this model. He proposes avenues through which this clinical research could be carried out in conjunction with other branches of psychology such as evolutionary psychology or personality studies.

Reading this book is a stimulating and challenging exercise; indeed, a slow reading is needed to fully comprehend the extent to which Dr. Almendro has successfully translated key concepts from chaos theories—fractals, emergent properties, attractors, etc.—into psychological terminology. The classic issues inherent in the translation of a text (from its original version in Spanish) are intuited while reading but do not imply difficulties understanding it if a coherent reading of the book is made. In addition, most of the issues dealt with in the book also require a certain degree of clinical experience in order for the reader to fully understand and transfer them to the psychotherapeutic context.

As clinical professionals we very much appreciate the contribution of this book, clearly expanding psychotherapy beyond the current limits of its knowledge. Too often, we encounter clients who have felt stigmatized by reductionist diagnoses that are based on taxonomies whose validity is questionable. It is clear that applying Almendro’s model, exchanging the “pathological” vision for that of the “emergent crisis,” will bring relief to the stigmatized patient. The book provides valuable insight into how the dyadic relationship of the therapist-client could take place in a novel and therapeutically beneficial form.

Closed and simple systems may be studied from deterministic approaches, wherein it is possible to anticipate every variable (if properly controlled). This is the case in the field of psychics. However, chaos theories claim that these approaches do not apply when it comes to understanding human psychological functioning. Human beings are—fortunately, we believe—complex, open, and dynamic systems. In the end, this book reflects the pressing need to re-think, and thus reinvent, the ways in which the fields of psychology and psychotherapy are evolving. Perhaps an “emergent crisis” in these fields is needed before new frontiers of knowledge can be opened.

References