

Book Review

Chaotic Cognition: Principles and Applications. By Ronald Finke and Jonathan Bettle. Mahwah, NJ: Lawrence Erlbaum Associates, 1996, 229 pages.

One of the most recent entries in the chaos theory arena is *Chaotic Cognition: Principles and Applications*. This work on cognitive style attempts to present a new field of inquiry by taking a "chaotic approach." The authors integrate a wide range of research and theory from psychology and related fields along with observations and insights from everyday life. Although cognitive style would traditionally be construed as a psychological construct limited to cognition and personality, the author's book is much more inclusive of a wide variety of perspectives, speculations and applications.

Apparently, the book is intended to appeal to a general audience who have not necessarily been previously exposed to chaos theory. However, the authors warn that many readers, particularly ordered thinkers, might find parts of the book unconventional or even disturbing. It is interesting that the book grew out of informal discussions between the two authors, one of whom is a chaotic thinker and the other orderly. The authors readily admit that many of the ideas in the book are speculative and are not based on research. Their goal is to lay a foundation for future empirical studies on chaotic thinking. Also, it is noteworthy that chaotic thinking is only tangentially related to "chaos" theory in the mathematical sense. Hence, the authors' goal is to explore cognitive style, rather than formal chaos theory.

According to the authors, there are several factors that distinguish between chaotic and orderly thinking: Orderly thinkers are much more planful, idealistic, task-focused and pragmatic than chaotic thinkers, on the other hand, chaotic thinkers tend to be more spontaneous, fatalistic, people-oriented, and impractical (see Table 1). Although both ordered and chaotic thinking are necessary for optimal functioning, modern society strongly favors orderly thinking. A fundamental problem with excessively ordered thinkers, however, is that these individuals are not very flexible in adjusting to changing priorities or effective at living in the present moment.

Table 1. Examples of Chaotic and Orderly Thinkers and Thinking

ORDERLY THINKERS	CHAOTIC THINKERS
Sigmund Freud	Carl Jung
Plato	Socrates
Richard Nixon	Ronald Reagan
Franz Kafka	James Joyce
Charles Dickens	John Keats
Stephen King	Ken Kesey
Watson	Sherlock Holmes
Confucius	Lao Tzu
ORDERLY THINKING	CHAOTIC THINKING
Goal oriented	Stimulation oriented
Single truth or reality	Multiple truths or realities
Seeks simplicity	Seeks complexity
Work ethic	Play ethic
Prosecuting Attorneys	Defense Attorneys
Convergent Thinking	Divergent Thinking
Stereotypically masculine	Stereotypically feminine

After fully discussing and exploring the advantages and disadvantages of each cognitive style, the authors conclude that both types of thinking are essential. Moreover, they contend that the weaknesses of chaotic thinking are mirrored by the strengths of orderly thinking and vice versa. That is, excessively ordered thinkers run the risk of being too rigid and controlled whereas chaotic thinking can result in undependability and frivolity. As is the case with almost anything, a strength used to excess becomes a liability.

The authors present a variety of chaotic thinking techniques, such as seeing meaning in the meaningless, creating apparent stupidity, and doing the next best thing. These techniques help chaotic thinkers to explore new possibilities and maximize the intensity of the moment. As a result, many chaotic thinkers can display moments of brilliance and great insight even though they may be inconsistent performers. Do these techniques help orderly thinkers be more chaotic/creative?

One of the most intriguing topics explored by the authors is various chaotic strategies for solving problems. Examples of these strategies include developing creative marketing approaches, legal defenses and guerrilla warfare. In fact, these chaotic strategies are commonly used by successful marketing executives, lawyers and generals.

Finally, some of the limitations of each thinking style are discussed by the authors. Essentially, excessively ordered thinkers may miss out on life because they are too controlled and closed minded. Conversely, chaotic thinkers run the risk of being frustrated or unhappy because they are not productive and successful in a predominately ordered world.

In summary, although the authors present a wealth of new ideas and insights, the primary limitation of *Chaotic Cognition* is the lack of an ob-

jective measure of the construct. In other words, even though the authors draw upon extensive research and theory in the life sciences along with insights and observations from popular culture it is not possible to actual test the hypotheses proposed in the book. Some readers may already be familiar with Kurt Lewin's famous quotation, "There is nothing as useful as a good theory." However, the corollary to Lewin's remark is that an untestable theory has quite limited scientific utility.

A minor concern is the inclination of the authors to label people as either ordered or chaotic thinkers. As might be obvious, everyone uses both types of thinking to some extent. For instance, someone could be very ordered and structured at work, but he or she might be much more chaotic when they are on vacation or playing with children. Perhaps instead of labeling individuals as chaotic or orderly thinkers, it would be more appropriate to identify typical cognitive styles in various settings. Even though the authors acknowledge that they are referring to extremes of each type for illustrative purposes, this may not always be clear to readers.

Many of the ideas presented in the book have a strong intuitive appeal. We all know people who are predominately orderly or chaotic in their thinking. The authors believe that both styles are essential for optimal functioning or performance, since they propose that the vast majority of people are somewhere in the middle of this chaotic and orderly thinking continuum. Specifically, most people are reasonably flexible in adapting to given circumstances and they also strive to be fairly orderly and organized in structuring their lives.

Overall, the book is a very well written and an entertaining page turner. Many fascinating ideas and concepts are investigated; however the long-term impact of the authors' theory and ideas is limited by the lack of an objective measure of the construct. Nonetheless, anyone interested in chaos theory or cognitive psychology is encouraged to peruse this seminal book in the hope that they will be motivated to conduct research and further explore practical and theoretical applications of chaotic cognition.

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