

# The Beauty of Chaos

Thomas Schoenberger and Marcia Stockton<sup>1</sup>

## Abstract

*Information theory combined with game theory, over a substrate of ubiquitous digital communication, has created a formidable weapon able to rapidly subjugate entire populations through psychological operations. The most draconian system of social control in history, due to mass media communications that exploit principles of psychology to compel desired behaviors, now threatens to deprive humanity of free will. Chaos, defined as an event so sudden that its pattern cannot be discerned, can be an effective antidote to this. We explore how chaos dissolves patterning by causing a momentary shift in mental focus. Chaos can stimulate accelerated learning. Creativity is the power to transmute chaos into development and ultimately, a source of paradigm shift that can benefit society far beyond the scope of the creative individual.*

**Keywords:** chaos, pattern, psychology, philosophy, psychological warfare, psyop, advertising, neurodiversity

## Introduction

In debates over nature versus nurture, the role of chaos is highly underrated. Often characterized as a negative or disruptive element, an unwelcome intrusion, chaos is considered unpatterned, random, a current that brings entropy and reversion to the mean. This common misconception has concealed its vastly important role in paradigm change.

The study of chaos in mathematics, signal processing, psychology, religion, cosmology, sociology and philosophy has opened some intriguing doors, revealing chaos's creative side. We will briefly address these areas to get a fresh perspective on chaos. We argue that chaos is the antidote to totalitarianism and uniformity, and, consequently, holds the power to free minds from externally-imposed controls.

---

<sup>1</sup> The authors gratefully acknowledge support from the Cicada 3301 Office of Strategic Research and the Renaissance Think Tank.

## I. The Nature of Chaos

**In mathematics.** IBM Scientist Benoit Mandelbrot explored the mathematics of chaos in his seminal work on fractal forms. The Mandelbrot set, produced by iterating a simple equation, when graphed reveals a boundary of infinite complexity. Selecting any random point on a cartesian plane and iterating a random number of times produces results that are anything but random. Evaluating equations containing a complex (square root of negative one) factor produces instantaneous changes between positive and negative values.

**In signal processing.** Cacaphony can be a weapon, or a blessing. Noise in a crowded restaurant makes conversation difficult – and yet paradoxically, the addition of stochastic data or white noise to a signal can make a weak signal more detectable. It is thought that summing with noise raises the amplitude of weak data values above a detectability threshold.

**In cosmology.** Matter can be transformed into energy, and vice versa. As energy, a wavefront will travel an infinite distance, for an infinite time, becoming attenuated or dispersed, but its amplitude never diminishing to zero. Waves impinging at the same point in spacetime sum. Thus, the occurrence of a random particle or photon (or any event that is considered chaotic) is not truly random. Rather, it is the product of energies from throughout the entire cosmos, that in their infinite travel happen to combine and manifest at that place and time.

**In religion.** A pattern of such detail and complexity exceeds the human mind's computational power; yet comprehending the abstract concept, we must acknowledge that it is indeed a pattern.

**In cognitive psychology.** White noise improves learning in healthy adults<sup>2</sup>. This phenomenon, more pronounced in individuals with lower executive attention, may be a result of increased production of neurotransmitters. We propose that this is one mechanism by which chaos stimulates rapid learning.

**In advertising and psychological warfare.** Advertisers and mainstream media have acquired superlative expertise in capturing our attention and playing on our emotions, in order to persuade and influence, using repetition and association skillfully to imbue products and services with desirable characteristics. To change the paradigm by which we judge and make decisions.

Indeed, the same techniques are utilized in political campaigns and military psychological operations. The popular notion of democracy presumes that wise decisions can be made the electorate. This common concept overlooks the ability of the media to influence, persuade, and even instill an almost-unshakeable belief in whatever narrative the deepest pockets wish to promote.

“The best slave is the one who thinks he is free.”

— Johann von Goethe

---

<sup>2</sup> <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5638812/>

The maxim of sensational news journalism, “If it bleeds, it leads,” arises from the knowledge that people kept in a state of fear buy more “stuff.” Thus, scaring people has become a vast profit model.

Consider the recent “COVID-19 emergency” for which a massive worldwide pharmaceutical intervention was prescribed. It brought a loss of individual rights, lockups, restrictions on access to food, unemployment, travel restrictions, and forced vaccination, in a rush by the World Health Organization and Center for Disease Control to over-promise and subsequently under-deliver solutions. It is now widely acknowledged that the “experts” got it wrong and many or all of these emergency measures either had no benefit, or were detrimental. And yet the pharmaceutical industry experienced a record-breaking 131% year-over-year profit. The fear campaign that was waged against populations in every nation was very effective in compelling “voluntary” radical behavior change.

Information theory combined with game theory, over a substrate of ubiquitous digital communication, has created a formidable weapon able to rapidly subjugate entire populations.

As another example, the same technology has been applied with a goal of population reduction, to convince people to prefer non-procreative sexual activity, not to reproduce, and to have their children castrated.

How can we as a species pursue humanistic goals while constantly bombarded by what is, essentially, information warfare? Or realistically, many competing information warfare operations, all vying over what is arguably our most valuable possession, our attention.

What is at stake is our free will and our humanity.

## II. Chaos Is Sudden Unpredictability

Chaos leaps, whereas order crawls incrementally. Let us examine order first, and then how chaos dissolves it.

Repetition is a bedrock principle of advertising (and psychological operations). This simple concept is an incredibly powerful tool. It not only increases awareness and recall, it also makes messages more credible by creating a false impression of majority acceptance. It is easy to fall victim to the “herd mentality”—the tendency to make decisions based on the actions (or perceived actions) of others.

Thus, we are given beliefs – and entire belief systems – by repetitive immersion in data, sounds, images, and emotional triggers. This insidious programming is difficult to resist because it is difficult to discern.

We each live inside a comfort zone comprised, to some degree, of familiarity: familiar surroundings, people, activities, habits. We gravitate toward predictability, and our thoughts sometimes go on auto-pilot. But our natural human tendency to minimize energy expenditure by establishing and reinforcing artificial patterns can be coopted by information warfare.

Enter chaos. By its nature, chaos lacks an easily-discernible pattern. While it may or may not be actually random, chaos is extremely difficult to predict. From a mathematical standpoint, modelling the complexity of a chaotic data set requires higher-order exponents and multiple terms – in other words, multiple patterns that differ substantially in period and amplitude, superimposed. Chaotic signals (and events) exhibit a sharp rise time from onset to peak, and are not amenable to conventional Fourier analysis.

This is what makes chaos an effective antidote to psychological programming.

Chaos is able to dissolve and disrupt mental patterns by interrupting our attention and causing a momentary shift in focus. Our instinct to be alert to environmental changes is triggered—the same instinct that is responsible for the fight-or-flight adrenaline response. We return to our previous object of attention with diminished intensity.

Whether we are aware of it or not, the chaotic interruption becomes part of our mental database. It happens automatically through our memory-formation process that processes, categorizes, and places into context every new stimulus.

A chaotic stimulus may be discarded as cognitive dissonance if it is far from any established pattern in memory. But more likely, it sits on the edge of what we thought we knew, pricking us with “Is this still true?”

Our hunter-gatherer ancestors were at home with chaos. Pursuit of game animals required both knowledge of their behavior patterns, and great agility to nimbly adapt to an ever-changing situation. Those who tended infants and minded cooking fires also needed the same dexterity. Environmental changes and marauding animals could equally be life threatening.

Chaos is a necessary stimulus that produces rapid learning. Human beings need such stimuli to learn and grow.

In a 1996 publication<sup>3</sup> one of the authors pointed out how juxtaposing unlike ideas stimulates creativity, with an analogy to the word game, Scrabble. The player draws seven random letter tiles and must form a word, preferably a long one. By randomly rearranging the tiles (introducing the element of chaos to produce new patterns), one quickly sees new words that went unnoticed before. Thanks to this insight, over 60 inventions were patented.

The other author, with a knack for comedy and puzzles, juxtaposes unrelated words, images, sounds, and ideas to produce hilarious results, leading us to observe that a modest quantity of cognitive dissonance can be funny, energizing, and stimulating.

But when we are subjected to too much chaos, we tend to shut down or shut it out, to protect our nervous system from overload. We cannot become paralyzed by over-reacting to every chaotic perturbation in our environment. The Big Five model of personality traits captures how people differ in where their personal comfort zone lies on the chaotic stimulation continuum.

---

3 ML Peters, “You Can Be an Inventor”, IBM Technical Report 292149 (5/96)

As humans adopted a more domesticated lifestyle and formed communities, we propose that this pendulum swung too far in the direction of rigid inflexibility. The advent of agriculture was necessarily accompanied by an increase in patterned behavior, as the agricultural calendar—tilling, planting, harvesting—is dictated by the seasons. It was also accompanied by the rise in urban populations and social systems of control.

This bears repeating. Humanity is now under the most draconian system of social control in history, due to mass media communications that exploit principles of psychology to compel desired behaviors.

Is there an antidote that can release us from bondage and restore individual free will?

### **III. Three Laws of Chaos**

Based upon these observations, we propose three principles of chaos:

1. Chaos exposes order, even as it disrupts it.
2. No matter how crazy it seems, all chaos exhibits patterns.  
All chaos contains a sub-perceptible form of order.
3. Although labelled an outlaw and deleterious influence,  
chaos can be a positive force. Chaos is inherently neither good nor bad.

### **IV. Creatives Deliver Chaos**

Societies have always tolerated a small proportion of misfits—those neurodiverse individuals with one or more attributes situated far from the broad center of the bell curve. These individuals may be called artists, musicians, seers, poets, shamans, philosophers, inventors, intellegentsia, futurists...

Throughout history, some societies have honored their misfits, considering them blessed with gifts from the ‘gods’, and providing for their wellbeing.

During the European Renaissance, it became a tradition for wealthy individuals to become patrons, offering support to artists, musicians, architects, and other creatives to free them from daily toil in order to concentrate on their craft.

This tradition hardly exists in today’s world. It has been replaced by programs of governments and private foundations to harness and exploit creatives’ gifts for the purpose of enhancing psychological warfare messages selected by those donors. In other words, grants with strings attached.

It can be argued that music, art, poetry, as well as technological inventions—designs flowing from the human mind—are necessary for human progress. Creatives are individuals who are able to respond to chaos, to perceive big-picture patterns imperceptible to the majority, and to transduce these patterns

into messages (creations). All development since the dawn of time has happened in this manner.

## V. Conclusion

We live in a world where chaos and order coexist. The wind rushing through a forest is chaos visiting order, as the trees are like rooted sentries, and the wind the breath of chaos.

But all chaos has a pattern, and sometimes its pattern interrupts orderly patterns humans adhere to. Floods, fire and celestial events can greatly impact our mores and perspectives.

Defining chaos as either evil or good depends on both short-term and long-term outcomes for our species. We leave you with a paper we found fascinating as we studied the effects of dramatic events on mankind.

Please read Lloyd D. Graham's [Then a Star Fell: Folk-Memory of a Celestial Impact Event in the Ancient Egyptian Tale of the Shipwrecked Sailor](#), a fascinating look at how a comet impact may have helped create culture.