Creativity and the Cathartic Moment: Chaos Theory and the Art of Theatre.

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CREATIVITY AND THE CATHARTIC MOMENT: CHAOS THEORY AND THE ART OF THEATRE

A Dissertation
Submitted to the Graduate Faculty of the Louisiana State University and Agricultural and Mechanical College
in partial fulfillment of the requirements for the degree of Doctor of Philosophy

in
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by
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Abstract

This dissertation investigates the potential applications of the scientific paradigm known as "chaos theory" in the examination of dramatic theory. By illuminating the limitations of traditional Newtonian physics and Euclidean geometry, chaos theory conveys philosophical implications that transcend the scientific and provide suitable tools for describing cultural and artistic phenomena. These implications include emphases on unpredictability, interaction and feedback, qualitative rather than quantitative analyses, and a nonlinear, continuous, even holistic perspective of systems traditionally viewed as dichotomous (such as order and disorder or part and whole).

This study examines several standard works of dramatic theory, concentrating on the relationship of the formal to the spontaneous in the creation of theatrical art and how chaos theory may provide a vocabulary for discussing intangible experiences (such as catharsis). Specific attention is given to Aristotle's Poetics, Dryden's "An Essay of Dramatic Poesy," Coleridge's Biographia Literaria, and Artaud's The Theatre and Its Double. The conclusions include an analysis of Richard Foreman's theatrical art and theories in the contexts of poststructuralism and postmodernism.

The respective theoretical writings of the figures discussed in this dissertation each display attempts to
describe some sort of an ineffable, chaotic moment involving theatrical experience and/or creativity. This point alone brings no new insight to the works of these theorists. When examined through a framework of chaos theory, however, such emphasis on these moments reveals the central roles they play in the theorists' accounts of the creation and experience of the theatre event. In this light, the traditional distinctions between the theories of these four individuals collapse, revealing underlying commonalities in their analyses of the processes and effects of theatrical art.

Chaos theory, therefore, promises to offer a common foundation for speaking about the creation and reception of theatrical art. Although each theorist will experience a different perception of "nature," they will nevertheless observe the same similar patterns and chaotic moments of creation at work underneath it all. The same will be true in creation and perception of art, thus overcoming the poststructuralist lack of foundation and the postmodern impasse to meaning that limits contemporary theory.
Chapter One: Introduction to Chaos Theory and Its Implications for the Art of Theatre

Since Aristotle, dramatic theorists in the Western tradition have derived formal systems which seek to account for the perfect theatrical moment. This moment has been approached from various vantage points and described in sometimes conflicting terms; theorists have invoked a wide range of phenomena (i.e., catharsis, communitas, intellectual insight, various affective experiences, etc.) in their attempts at explanation. Indeed, this moment has proven to be the fascination of theorists through the ages. It has also proven something of an irritant, however, by causing thinkers much consternation in their efforts to determine and in some measure qualify the often elusive aspects of such a moment.

A central problem theorists have encountered in their attempts to understand the experience of the theatre event stems from the basically mimetic orientation of Western theatre, which seeks to represent nature, especially human nature, onstage by appealing to an unchangeable order. Rooted in the linear, reductionist constructions of figures such as Aristotle, Descartes, and Newton, theorists have often praised those systems, rules, and styles which codify human experience and construct nature through fixed operations and principles of regularity. At the same time, many of these theorists have also
acknowledged the presence (and even necessity) of certain intangible elements which defy calibration, whether it be the genius or inspiration of the creative artist or the catharsis or revelation of the spectator. Such elements, which may not be evoked with consistency or accounted for by systematic formulation, have also been relegated to the domain of nature—natural talent, natural reaction, gut instinct, intuition, etc.—though this sort of nature implies another set of qualities and characteristics.

In essence, Western intellectuals have long grappled with two very different views of nature: 1) the nature of consistency, which conforms to the physical, aesthetic, and moral schema constructed by human will and logic, and 2) the nature that occasionally (sometimes often) confounds systematic interpretation, apparently behaving according to its own mysterious and seemingly arbitrary rules. The problem in art and philosophy, therefore, arises in attempts to reconcile these two views of nature. Systems of the former view of nature have thus far failed consistently to account for and, especially, predict the observable phenomena of the latter type of nature. Does the perfect system remain to be discovered, or must these two views of nature fail to converge through their very definitions? This study will address the constantly changing relationship between the formal and the natural, the tangible and the intangible in the art of theatre,
employing the scientific paradigm known as "chaos theory" as a tool for examination and comparison.

Not surprisingly, scientific views of nature have led to problems quite analogous to those inherent in the views of nature propounded by art and philosophy. Euclidean geometry, Cartesian coordinates, and Newtonian dynamics provide methods for describing the ideal realms of triangles, parabolas, and closed systems, but fail to account for the shapes and motions of mountains, trees, and waterfalls. Although the above examples again imply two different views of nature, scientists prior to the twentieth century dismissed apparent conflicts between the two as "noise" resulting from either experimental error or the non-ideal (non-laboratory) conditions of the "real" world. With the turn of the twentieth century, however, developments such as relativity and quantum mechanics began to expose the limitations of the essentially linear and mechanistic scientific view of nature often referred to today as the Newtonian paradigm. Even more recently, with the advent of computer technology and the mercuric ability to perform lengthy reiterative calculations that would take a lifetime to complete by hand, the nonlinear aspects of nature formerly dismissed as noise were shown to have their own underlying characteristics and laws, or more accurately, order. Such revelations, among numerous others, formed the basis of the current scientific
paradigm known as chaos theory, which will serve as the framework of this study.

Stephen H. Kellert defines chaos theory as "the qualitative study of unstable aperiodic behavior in deterministic nonlinear dynamical systems" (2). Such a concise definition clearly deserves elaboration; the system of the earth's weather, a commonly-cited example of chaos theory at work, will be employed to illuminate the practical implications of the definition.

1) Chaos theory is considered a qualitative approach primarily for two reasons. First, very few of the nonlinear differential equations that govern the behavior of chaotic phenomena are solvable quantitatively. When forecasting the weather, for example, meteorologists look for familiar patterns in the data they collect. To numerically solve the dynamic equations that govern the weather would require an infinitely precise knowledge of the location of every air particle in the earth's atmosphere, just for starters. But where this initial reason appears limiting, the second reason is even more liberating, for qualitative approaches reveal information about the long-term behavior of a system that may not seem apparent through an exact, numerical solution. In other words, scientists do not typically employ chaos theory because it is the only tool available, but rather because the qualitative approaches of chaos theory reveal
different and often more valuable information about the behavior of the phenomena they are studying.

2) Systems which behave according to the principles of chaos theory are described as unstable because they display a sensitive dependence on initial conditions. In other words, the system will never settle into a pattern of behavior consistent enough to remain unaffected by small disturbances. Unstable systems contain mathematical properties which often magnify errors rather than correct for them. This phenomenon is more popularly referred to as "the butterfly effect," which asserts that the incremental amount of wind generated from the beating of a butterfly's wings in Brazil can theoretically account for the difference between a sunny day and a tornadic thunderstorm in Texas (Kellert 4, 12).

3) When the mathematical variables of a system do not repeat at regular intervals, the behavior of the system is described as aperiodic. Kellert cites human history as an analogy of aperiodic behavior: "Although broad patterns in the rise and fall of civilizations may be sketched, events never repeat exactly--history is aperiodic" (4-5). Kellert further states that the future behavior of a system becomes unpredictable when both aperiodic and unstable behavior are present. Of course, the ever-changing and unpredictable nature of the weather testifies to its aperiodicity as well as its instability.
4) The word "deterministic" is employed to describe mathematically simple systems. Such systems contain only a few differential equations that do not directly suggest chaotic behavior. In addition, all of the mathematical terms of the equations are known, or "determined." Although more complex systems also behave according to chaos theory, the discovery that apparently simple, ordered systems exhibit complexity and unpredictability provided one of the revelations that has made this field so exciting to modern researchers. In fact, Edward Lorenz's discovery that the simple, "deterministic" equations that govern the behavior of the weather could yield instability resulted in his coining of the term: "the butterfly effect" (Kellert 10-12).

5) Nonlinear dynamical systems are sets of mathematical differential equations that describe how a system changes through time and contain one or more nonlinear terms. The time-dependent (dynamical) equations employed by Lorenz in his modeling of the weather contain nonlinear terms. The presence of nonlinear terms often means that the equations may not be solved numerically, but, as mentioned above, other often more illuminating, information may be obtained through qualitative approaches.

The discovery that a great number of mathematically ordered systems display unpredictable behavior has resulted in a parallel revelation that much more of the
universe operates according to the laws of chaos and complexity than was previously believed. The more linear, mechanized, and essentially causal view of science advocated by the Newtonian paradigm actually proves to be the exception, rather than the rule, when gazing through the lens of chaos theory. James Gleick describes the impact of this relatively new mode of observation in the prologue to his book, *Chaos*:

Now that science is looking, chaos seems to be everywhere. A rising column of cigarette smoke breaks into wild swirls. A flag snaps back and forth in the wind. A dripping facet goes from a steady pattern to a random one. Chaos appears in the behavior of the weather, the behavior of an airplane in flight, the behavior of cars clustering on an expressway, the behavior of oil flowing in underground pipes. No matter what the medium, the behavior obeys the same newly discovered laws. That realization has begun to change the way business executives make decisions about insurance, the way astronomers look at the solar system, the way political theorists talk about the stresses leading to armed conflict. (5)

Because of the diversity of its potential applications, Gleick views chaos theory as an holistic approach that will ultimately lead to a unification of the various scientific disciplines. But what do the disparate phenomena cited by Gleick share in common, besides the unpredictability which inherently results from Kellert's definition of chaos theory?

An answer to this question lies in still another of the revolutionary discoveries that may be attributed to chaos theory concerning systems which behave
unpredictably, yet display an order that underlies the disorder; this order may actually appear quite similar in systems that are otherwise vastly dissimilar. In addition, the order may not be observed by merely studying or solving (if solvable) the dynamical equations which govern the behavior of the system. In fact, this order may be studied without even knowing the system's dynamical equations through the qualitative approaches of chaos theory. In short, the above-mentioned phenomena described by Gleick share common patterns that may be revealed through 1) strange attractors, 2) fractals, 3) self-similarity; such patterns are created through processes such as 4) feedback and 5) self-organization.

1) A strange attractor is a special variety of the attractor, a graphical depiction of a system in state space (in which each coordinate of the graph corresponds to a variable of the system), towards which all trajectories of the system converge. Strange attractors are called "strange" because two points that are initially close together on the attractor may diverge dramatically; such a system would, therefore, display a sensitive dependence on initial conditions, because relatively (possibly even minutely) small changes in the variables of the system could produce extremely varied results. Because similarly-shaped strange attractors indicate systems which are also similar mathematically, researchers often employ strange attractors to gain a feel for the
patterns that drive the behavior of a phenomenon, even if the mathematical equations for the system are unknown. Lorenz discovered the first strange attractor while creating his computer models for the behavior of the weather. Strange attractors may also be used to gain quantitative information about a system by numerically calculating its "Lyapunov exponents" and "fractal dimension," each of which provide a different kind of measure of a system's degree of unpredictability.¹

2) Benoit Mandelbrot has done perhaps the most well-known work with fractal dimensions when he created (through computer simulation) the set of geometric figures he calls "fractals." Mandelbrot's investigations were inspired by the incongruities he observed between Euclidean geometry and nature, because of the former's "inability to describe the shape of a cloud, a mountain, a coastline, or a tree. Clouds are not spheres, mountains are not cones, coastlines are not circles, and bark is not smooth, nor does lightning travel in a straight line" (1). Mandelbrot then attempted to recreate the shapes of nature mathematically by employing fractal dimensions, reiterating chaotic equations, and plotting the results by computer; by this method he succeeded in creating imaginary coastlines, mountains, and even trees. Although the complexity of the behaviors of both the computer equations and the natural forces involved make it impossible to recreate "real" objects of nature in this
manner, his work has proved successful as a means of approaching a better understanding of the geometry of nature.

3) Another important element of chaos theory, which Mandelbrot discovered in both nature and his mathematical simulations of nature, is called self-similarity. According to Mandelbrot, "When each piece of a shape is geometrically similar to the whole, both the shape and the (processes) that generate it are called self-similar" (34). The word "similar" is particularly key to this definition, for in nature, no two shapes are ever exactly alike; although the branches of a tree look like miniature trees in themselves, they each contain their own specificities and irregularities. Self-similarity has also been discovered in the shapes of coastlines and in the human body: the branching of bronchial tubes in the lungs is similar to that of the vascular and nervous systems. Although self-similarity, by definition, refers to geometric shapes within the same system, John Briggs and F. David Peat cite research that the manner in which the human brain chooses neurons to respond to a stimulus is similar to the way the immune system chooses immune cells to respond to a disease, even though each of these systems has its own fractal dimension (107). This similarity is not so surprising, however, when one considers that each of these vastly different systems resides within the overall system of the human body. From
such a perspective, the similar shapes of the branches of
trees, lightning bolts, ice crystals, and human bronchial
tubes do not seem as coincidental as one might initially
assume. To many researchers, chaos theory is viewed as a
science of holism, seeking to illuminate the self-similar
patterns of the whole of nature and the congruities and
interconnectedness that make up the overall system of the
universe.

4) Another phenomenon associated with chaos theory
that reinforces theories of holism and interconnectedness
is feedback. Feedback occurs when one part of a system
both affects and is affected by another part, the way two
people involved in a conversation react according to the
response each receives from the other. The feedback may
be said to be positive when, for example, the conversation
intensifies because the two individuals arrive at a topic
that each finds interesting. In a like manner, negative
feedback occurs if one person is not interested in a
topic, either stopping or changing the direction of the
conversation. Positive feedback may therefore be
described as intensifying, or encouraging. Negative
feedback, on the other hand, usually functions as a
controlling phenomenon, as in the relationship between a
heating furnace and its thermostat.²

Feedback is relevant to chaos theory on one level
because of the reiterative nature of chaotic systems.
Unstable, aperiodic systems display a sensitive dependence
on initial conditions because the difference between two initial points becomes magnified as the mathematical equations positively feed into themselves with each iteration. On another level, however, most systems are comprised of myriads of feedback loops in which nonlinear equations feed not only into themselves through reiteration, but into each other through interaction as well. The system of the weather, for example, (which contains numerous feedback loops in its own right) feeds back with the system of the earth's oceans, the system of human industrial manufacturing, and many others. Human social, economic, and political systems also interact in extremely complex feedback loops. Finally, biological systems contain perhaps the most complex feedback loops as the various cells within an individual body maintain constant interaction and even communication through chemical reactions.

5) Complex feedback loops in nonlinear systems often exhibit a phenomenon known as "self-organization," in which an entire system organizes itself into an ordered state from an apparent state of randomness or disorder. M. Mitchell Waldrop refers to this phenomenon as "emergence" in his book on complexity theory (a sister science of chaos theory) entitled Complexity. Frequently in such phenomena, the individual parts of a system display autonomous behavior, then suddenly organize into a pattern of collective behavior. Briggs and Peat cite
examples of termites building nests and amoebae aggregating into slime molds to sprout stalks and produce spores, but they provide an even better analogy that strikes closer to the human experience:

Driving between rush hours on the thruway, we're only minimally affected by other vehicles. But toward 4 o'clock, traffic becomes heavier and we begin to react and interact with the other drivers. At a certain critical point we begin to be "driven" by the total traffic pattern. The traffic has become a self-organizing system. (138)

Stuart Kauffman uses self-organization as the basis for his theories of the origin and evolution of life. According to Kauffman, a mixture of chemicals with a sufficient diversity of molecule types creates such a complex web of chemical reactions that it becomes autocatalytic, self-sustaining, alive. In other words, under chaos theory complexity just happens. The development of life on this planet no longer appears a fortunate accident (as in the spontaneous generation theory); rather, it is the expected result of a universe whose laws encourage increasing complexity and self-organization (45).

Ilya Prigogine approaches self-organization from a thermodynamic point of view, finding "dissipative structures" in far-from-equilibrium systems. Dissipative structures are ordered states of chaotic systems which maintain their order by taking energy from and releasing entropy to their environment. The very term "dissipative structure" emphasizes the seemingly paradoxical,
interactive relationship of order and disorder in the phenomenon of self-organization (Prigogine and Stengers 142-143). The exciting aspect of Prigogine's work lies in the positive light it casts upon the notion of entropy; formerly, the second law of thermodynamics (entropy always increases in a closed system) implied decay and eventual equilibrium, but Prigogine emphasizes how the dissipation of entropy leads instead to self-organization and new levels of order in chaotic systems.

The notion of self-organization, that order arises spontaneously and naturally from disorder, holds various philosophical implications. Perhaps most fundamentally, the relationship of order and disorder must be viewed in this light as complex and continuous, rather than dichotomous. Simple, deterministic mathematical equations may harbor chaotic behavior, while order has been shown to underlie and even arise out of apparently random, chaotic behavior. Order and disorder are no longer oppositional, but instead interactive and complimentary in the driving forces of nature.

When combined with the notion of a sensitive dependence on initial conditions, self-organization also places a greater significance upon human action, even in the case of the individual. Rather than living in a stable, clockwork world, humans interact with an unstable, aperiodic universe where seemingly insignificant events may become magnified through nonlinear feedback, leading
to dramatically new levels of order. According to Prigogine, "since even small fluctuations may grow and change the overall structure, as a result, individual activity is not doomed to insignificance" (qtd. in Briggs and Peat 151). From this point of view, self-organization even offers hope for sometimes sudden or even radical change in political and social systems--the Berlin Wall, after all, came down rather quickly.

When examined in the context of strange attractors and self-similarity, self-organization implies that various, often recognizable, patterns appear in the behavior of natural phenomena. Because these patterns often exhibit general similarities with specific differences, qualitative approaches to understanding yield more profitable results than quantitative methods. Similarly, Kellert points out that to search for the laws that govern chaotic behavior "does violence" to the purpose of chaos theory, because such a search implies reductionism and a "doctrine of determinism as total predictability"; a more appropriate endeavor in a universe governed by an indeterminate determinism is to search for order, which helps to illuminate "how it happens" as opposed to "why it had to happen." Chaos theory, therefore, challenges the notion of linear causality, not only because most systems are comprised of multiple interactive feedback loops, but also because simple, apparently ordered systems may display chaotic behavior.
that breaks an otherwise direct and predictable relationship between cause and effect (112-113, 104-105).

The phenomena of self-organization and self-similarity also suggest a nonlinear relationship between part and whole within a system. From a Newtonian point of view, the whole may be described as the sum of its parts; in the arts, the same may certainly be said about an aesthetic such as Zola's Naturalism. Under chaos theory, however, the part may not be taken out of the context of the whole in a nonlinear system. The linearly-connected gears of a clock, after all, work in a direct causal relationship to the overall system. In addition, a single gear may be easily removed and made to function in a different mechanical device, such as a wind-up toy; removal of the gear, however, breaks the causal chain, thus disrupting the function of the original device--the clock. A mechanical clock, therefore, does not and must not (in order to provide accurate time) display chaotic behavior: it is a linear system. In a nonlinear system, on the other hand, the part is not only connected, but interconnected with the whole--the same way a single human gene in a toenail, for instance, carries the coding information for the entire body; but removal of even an entire toenail (or toe) does not terminally disrupt the operation of the whole body. In addition, a sensitive dependence on initial conditions indicates that the activity of even the smallest part of an unstable,
aperiodic system may become magnified, reordering the entire system through self-organization. Such a relationship of part to whole again supports chaos theory's emphasis on holism because the feedback between individual parts and between part and whole defy traditional reductionist analysis (Briggs and Peat 29).

A final implication of self-organization deals with its applicability to the study of human behavior, thought processes, and even the notion of creativity. Briggs and Peat provide the example of nineteenth-century scientist and mathematician, Henri Poincaré (a pioneer in the ideas that later developed into chaos theory), who related during a lecture how he had gained insight into a problem that he had been struggling with for weeks: "Contrary to my custom, I drank black coffee and could not sleep. . . . ideas rose in crowds; I felt them collide until pairs interlocked, so to speak, making a stable combination" (192). Later, Poincaré took part in a geological expedition, during which he momentarily forgot about his mathematical problem. As he boarded a field bus with his group, however, the rest of the solution to his problem suddenly occurred to him; he successfully verified the results upon returning home. Briggs and Peat cite Poincaré's unforeseen bursts of inspiration as examples of self-organization; the new insights arose spontaneously from the disorder of frustration and confusion that his mind had associated with the problem. Furthermore, Briggs
and Peat employ Arthur Koestler's theories concerning human thought processes to support their association of self-organization with Poincaré's story (192-193).

Koestler's theory of inspiration is based on the notion of frames, or planes, of reference. Koestler asserts that when the individual mind wrestles with a problem, the thought processes often become trapped within patterns on one plane of reference; the solution to the problem lies within a different reference plane, however. The subject's frustration increases until a trivial event or piece of information, usually unconnected with the problem, changes the subject's plane of reference to one which contains the solution. Koestler illustrates his theory with the story of the Greek scientist Archimedes who discovered how to measure the volume of gold in the king's crown through water displacement as he stepped into his bathtub; according to the story, Archimedes shouted "Eureka!" when he noticed the water displaced by his own body (105-108). Briggs and Peat take Koestler's theory a step further by equating his model for inspiration with self-organization. According to Briggs and Peat, the initial, "trapped" thought patterns are analogous to a linear, point attractor; mounting frustration, however, causes instability in the thought patterns, and the trivial event, much like the butterfly effect, spurs the thought processes to self-organize to another level of order, a different reference plane (192-193). Koestler
also applies his theory to the inspiration of the artist, as well as the experience of art, which causes ordinary objects and events to be seen in a strange, new light (108).

Assuming Briggs and Peat's application of Koestler's theory is correct, the creative mind, when successful, operates in the nonlinear realm, tracing patterns that are more similar to strange attractors than simple, linear attractors. Similarly, the minds of those who experience works of art are transported in a nonlinear fashion as well. Western thought, however, has historically been dominated by linear, reductionist thought patterns, and dramatic theory is no exception. Such thinking may be observed most clearly, perhaps, in French Neoclassicism. Neoclassicists intended to present a view of life that seemed "natural" and admitted aesthetic experiences that could not be described linearly, such as pleasure or emotion. However, given their insistence on prescriptive dramatic codes, the Neoclassicists were baffled by authors like Shakespeare, whose works produced the results they desired while displaying little adherence to their rules of writing.

One might therefore conclude that intuitive and experiential perspectives have been historically undervalued by theorists and practitioners of theatre. Although such a statement contains some relative truth, historical documents consistently refer to the more
intangible aspects of drama and performance, often holding such elements in high regard, even if they are not well defined. A reading of Aristotle's *Poetics*, for example, does not reveal a clear understanding of the term "catharsis," but this component is a significant—and arguably even the most important—element in Aristotle's theatrical construct. In more recent times, Antonin Artaud made elaborate theoretical attempts to construct a theatre appealing to the most primal human emotions and impulses, but his results can only be described as vague and mystical.

The work of each of the above-mentioned theorists gropes for a different, but nevertheless similar, kind of "natural" order to serve as the basis for understanding the creation or experience of theatrical art. In relation to the creative aspects of artistic production, such an order manifests itself in the moments of chaos normally referred to as genius, inspiration, or intuition. Another type of "natural" order may also be observed in the moments of catharsis, revelation, or communitas in the spectator's experience of theatrical art. According to chaos theory, self-organization (or "order out of chaos") occurs only in the unstable, aperiodic behavior of nonlinear systems, a point which explains why formally structured approaches to the creation of theatrical art often produce seemingly uninspired results; very few of the plays which were written as a result of the influence
of Zola's Naturalism, for example, have stood the test of time as great works of art. More successful approaches to theatrical creation, on the other hand, usually include chaos in the mix. Stanislavsky's writings on acting, for example, specifically state that his system should not be applied universally as a rigidly formal set of rules; rather, he provides a general set of suggestions from which the individual performance style appropriate to the desired play or character may be discovered. But Stanislavsky's work has, of course, been misused in this respect, consequently producing many uninspired performances, particularly since its introduction to theatre in the United States.

Human schema which attempt to codify nature, therefore, tend to become linearly oversimplified because they do not account for natural unpredictability and its capacity to create its own organic order. To their credit, the theorists to be examined in this study have recognized the spontaneous creative power of the "chaotic moment," even as they could not devise systems which explain such a moment. This study will therefore employ chaos theory in the analysis of specific theoretical texts, including Aristotle's Poetics, Dryden's "An Essay of Dramatic Poesy," Coleridge's essays on theatrical art and aesthetics, and Artaud's The Theatre and Its Double. The theoretical writings of the theatre artist, Richard Foreman, will be briefly examined as part of a larger
exploration of poststructuralism and postmodernism in the concluding chapter. Furthermore, this study will probe each theorist's conception of "natural" order, examining his formal constructions (if any) for specific philosophical similarities with chaos theory (i.e., continuous and interactive relationship of order to disorder and part to whole; unpredictability and the butterfly effect; an indeterminate determinism; self-organization; patterns and intuition).

This study will begin with an examination of Aristotle's Poetics, particularly emphasizing the rather elusive concept of catharsis and how it relates to the more formal aspects of Aristotle's critical structure. Since the notion of catharsis has remained dominant in the study of the experience of theatrical art throughout theatre history, this chapter will establish a basis that the successive chapters may build upon, just as Aristotle provided the critical foundation for subsequent Western theorists.

The next document this study will investigate is John Dryden's "An Essay of Dramatic Poesy." In addition to being one of the most historically well-known works of dramatic theory, Dryden's work is important to this study because of its attention to questions of form and audience reception. By comparing various formal styles of drama—that of the ancients, the French Neoclassicists, and the
more "irregular" English (both pre- and post-Restoration) -
-Dryden is able to place value upon the more "lively"
aspects of drama, which arguably come more from the
instincts, or "soul," of the dramatist than strict
adherence to a particular form or style (in this case, neoclassicism).

Samuel Taylor Coleridge's theoretical and critical
ideas, particularly those found in his Biographia
Literaria, will be examined in the context of the Romantic
aesthetic viewpoint. Coleridge's theory of the
imagination particularly reflects the romantic view of the
relationship of the spiritual and the material.
Furthermore, his famous measuring-stick of beauty,
"multëity in unity," provides a pertinent perspective of
the relationship of part to whole for the purposes of this
study.

An analysis of Antonin Artaud's The Theatre and Its
Double will focus on Artaud's appeal to a spiritual unity
that he believes must be rediscovered to cure the world of
violence and injustice. Artaud asserts that theatre
should serve as the ultimate tool for achieving such unity
by directly and forcibly (and hence "cruelly") operating
on the psyches of the audience. Archetypal patterns that
touch the essential, primal core of the spectator provide
the basis for this "Theatre of Cruelty."

The conclusions of this study will provide an
abbreviated examination of the theoretical concepts of the

This study will draw upon a number of works that have been published in the scientific literature on the subject of chaos theory. The most noteworthy deal with the philosophical implications of this new paradigm, including Briggs and Peat's *Turbulent Mirror*, Kellert's *In the Wake of Chaos*, and Prigogine and Stengers' *Order Out of Chaos*. Other works significant to this study include Waldrop's *Complexity*, Mandelbrot's *The Fractal Geometry of Nature*, Kauffman's *At Home in the Universe*, and Gleick's *Chaos: Making a New Science*. All of these works have been referenced in the above discussion of the fundamental concepts of chaos theory. Most of the remaining works in this field contain material too technical to be of applicable interest to the dramatic theorist.

Chaos theory has also proven a fertile subject for publication in literary criticism and theory. N. Katherine Hayles has produced some of the earliest and most influential of this work in her book, *Chaos Bound*, and in the collection of essays which she edited, entitled...
Chaos and Order; many of the essays in this latter work treat chaos theory as a paradigm for justifying postmodernism and poststructuralism, mainly by stressing chaos theory's emphases on complexity and unpredictability. A few scholars are attempting to use chaos theory as a paradigm to transcend poststructuralism, however, and this line of study appears as a more promising approach for the application of chaos theory's philosophical implications in literary theory and criticism. A notable essay in this trend is Barbara Riebling's "Remodeling Truth, Power, and Society" in After Poststructuralism, ed. by Nancy Easterlin and Barbara Riebling.

In theatre, only a few publications have appeared that deal primarily with chaos theory. The most significant include Michael Vanden Heuvel's "The Politics of the Paradigm: a Case Study in Chaos Theory," published in New Theatre Quarterly (August 1993), and William W. Demastes' "Re-Inspecting the Crack in the Chimney: Chaos Theory from Ibsen to Stoppard," also published in New Theatre Quarterly (August 1994). Vanden Heuvel applies the order/disorder metaphor to the theatrical system of text/performance. He argues that contemporary "alternative" theatre (i.e., Robert Wilson, performance art) has overemphasized uncertainty and disorder through adherence to a mistaken view of deconstruction informed by quantum mechanics; the resulting theatre presents disorder.
for its own sake, consequently ignoring political and cultural messages that might provide a "productive experience" for the audience. Vanden Heuvel offers chaos theory as a paradigm for a more purposeful theatre and praises the Wooster Group for their employment of a balance between text and performance that informs as well as deconstructs.

Demastes applies the chaos theory paradigm to dramatic literature, arguing that the unpredictability inherent in the butterfly effect denies naturalistic causality and determinism. He then illustrates this proposition by pointing out non-causal relations in Ibsen's *The Master Builder*. Demastes also calls attention to the mini-pockets of order that lie within the plays of Samuel Beckett, which depart from the more random brand of disorder that characterizes the absurdist style as defined by Martin Esslin. Finally, Demastes discusses Tom Stoppard's conscious employment of chaos theory in his play *Arcadia* and cites David Rabe as a contemporary playwright who seems in touch with current views of reality and whose work appears to be informed by the ideas that comprise chaos theory.³

A small and, to varying degrees, significant body of work has been produced to date, therefore, on the subject of chaos theory and the art of theatre. Each of these works has, at least in part, served as an introduction to chaos theory and its implications for theatre; this study
is certainly no exception in this respect. This study departs from its predecessors, however, in both subject matter and scope. By directly investigating works of dramatic theory, this study aspires to employ chaos theory as a means of illuminating, or at least approaching more intimately, the fundamental nature of concepts such as creativity and the experience of theatrical art. By examining documents from various periods of theatre history, this study attempts to arrive at the more universal aspects of these concepts, which transcend movements in philosophy or period style.

Ultimately, this study strives to achieve the above-mentioned goals by answering the following questions: (1) How has the relationship of order and disorder been perceived by theorists at various points in theatre history? (2) How has the "chaotic moment" been addressed and explained in the works of these same artists, and how does such a moment relate to their individual conceptions of the perfect theatrical moment? (3) How do the various philosophical implications of chaos theory function with respect to the specific works studied? (4) How might chaos theory illuminate the ideas of these theorists in new ways that in turn offer new insights into their respective works? (5) What possibilities, if any, does chaos theory offer for approaching the creation and reception of theatrical art in the future? Finally, this study does not purport to be a manifesto upon chaos theory.
and the art of theatre; hopefully, chaos theory will serve merely as a useful tool for confronting the more important questions set forth in this introduction concerning the intangible elements of theatrical art. If this investigation yields encouraging results, then perhaps it may serve as a starting point from which future explorations may be undertaken concerning chaos theory and the art of theatre.

End Notes

1 Lyapunov exponents are derived from a measurement of the speed at which two nearby points on the attractor diverge. These numbers also correspond to the rapidity with which two nearby points in a system (such as a turbulent river) diverge, therefore representing the degree of unpredictability in the system. The fractal dimension of an attractor lies somewhere between the standard whole-number dimensions used, for example, in Euclidean geometry. This number provides researchers with a topological assessment of how a system behaves in response to changes in its parameters. The fractal dimension also indicates the degree and type of self-similarity (recurring geometric features) within the layers of the strange attractor (Kellert 15-19).

2 The thermostat reacts to a drop in air temperature by telling the furnace to turn itself on. The thermostat then tells the furnace to turn itself off after the air temperature has risen to a specified level. The relationship between the thermostat and the furnace would be described as positive feedback if the thermostat told the furnace to turn itself on after the air temperature rises above a certain level; in this case, the furnace would never turn itself off (theoretically).

3 Beeb Salzer published an article entitled "Regarding Chaos and the Theatre" in Theatre Design and Technology (Spring 1992) that serves as an introduction to chaos theory from a production/design point of view. Although Salzer's ideas about applying chaos theory to theatre are not fully developed, he does allude to an "order as form" and "chaos as creativity" approach that somewhat correlates with this study.

Laura Morrow and Edward Morrow published two essays in 1993 which apply the concepts that inform chaos theory
to the plays of Tennessee Williams. The first appeared in *Studies in American Drama, 1945-Present* (vol. 8, no. 2) and was entitled "Humpty-Dumpty Lives!: Complexity Theory as an Alternative to the Omelet Scenario in *The Glass Menagerie.*" The second was "The Ontological Potentialities of Antichaos and Adaptation in *A Streetcar Named Desire,*" which appeared in *Confronting Tennessee Williams' A Streetcar Named Desire* (ed. Philip C. Kolin). Each of these articles interprets chaos theory in terms of human behavior, dealing primarily with issues of complexity and alternating patterns of order and disorder. Morrow and Morrow then approach each of the Williams plays by studying the behavior patterns of the various characters according to this perspective.

Simon Jones tangentially touches upon the intersection of chaos theory with the issues of creativity and the experience of theatrical art in his essay, "Demonology: Some Thoughts Towards a Science of Chaos in Recent Performance," published in *Contemporary Theatre Review* (vol. 2, part 2). The most exciting aspect of Jones' speculations concerns his relation of creativity to Michel Serres' "demon," which is itself a characterization of Lucretius' "clinamen." Unfortunately, Jones ironically fails when he sets out to challenge "theorizations of performance as text," as his own writing becomes bogged down in theoretical jargon. His blatant defiance of theory accomplishes little more than to permit him to emanate a stream of ambiguous, unsupported, and subjective statements. Much like the dramatic theorists to be examined in this study, Jones knows what he wants to say, but does not know how to say it.

Cara Gargano examines Maria Irene Fornes' play, *Mud,* through a framework of chaos theory in her article, "The Starfish and the Strange Attractor: Myth, Science, and Theatre as Laboratory in Maria Irene Fornes' *Mud* (sic)," published in *New Theatre Quarterly* (August 1997). Gargano approaches the world of the play as a fractal world in which order and disorder play out in random but self-similar patterns. The characters of the play, according to Gargano, find themselves in an interactive continuum between primal instinct and social constructedness, essentially at a bifurcation point in the evolution of humanity. She finds continuous order/disorder relationships and fractal self-similarity in the form of the text as well. Gargano's analysis, therefore, is essentially textual, although she briefly touches upon some of the deeper theoretical issues to be raised in this study, such as the relationship of the formal to the ineffable (the latter being passion and lyricism in this case). Finally, although Gargano relies upon poststructuralist/postmodern thought in many of her arguments, she seems to want to use chaos theory to transcend such concepts, even though she never states so explicitly.
Chapter Two: Catharsis, Creativity, and Chaos in Aristotle's Poetics

In his Poetics, Aristotle introduces a number of key concepts whose interpretations remain a source of debate even today. Terms such as mimesis, hamartia, peripeteia, anagnorisis, and pathos have each acquired various meanings dependent upon the point of view or approach of the individual interpreter. However, of all Aristotle's elements of poetry/tragedy, the definition of catharsis has aroused the most controversy; such controversy demands that a working definition of catharsis be derived before proceeding with an analysis of the remainder of the Poetics.

This chapter will therefore begin with a survey of the literature concerning the interpretation of Aristotle's term catharsis, ultimately arriving at a definition consistent with chaos theory. Once such a definition has been determined, several other questions involving the interpretation of the Poetics begin to fall in line. This chapter will then address the following issues through a framework of chaos theory: 1) the interpretation of the term mimesis, 2) the development of the forms of comedy and tragedy, 3) Aristotle's emphasis upon "order," 4) the relationship of part to whole in the Poetics, 5) causality and unpredictability, 6) the hamartia, 7) character, 8) thought, 9) cognitive and emotional audience experiences, and 10) cognitive and emotional approaches to playwriting.
Since an understanding of several of Aristotle's arguments in his *Poetics* (including most of those listed above) depend upon the individual scholar's definition of catharsis, a thorough examination of the traditional approaches to the meaning of catharsis will now be undertaken, culminating in a working definition of the term informed by a perspective based in chaos theory. Probably the greatest number Aristotelian scholars have defined catharsis as a process of "purgation." Advocates of the purgation theory typically treat catharsis as a homeopathic medical process, which "purges" the tragic spectator of unhealthy or undesirable emotions. This definition was first proposed by the earliest commentators on the *Poetics*, was later revived by nineteenth- and early twentieth-century interpreters such as J. Bernays and S. H. Butcher, and has been reinforced by the appropriation of the term by psychoanalytical theorists, beginning of course with Freud's notable discussion.

The purgative theory of catharsis derives primarily from three sources. First, the notion of a medical purgation appears as the most common usage of the term in classical times, although several scholiasts employ the word metaphorically. Secondly, because Aristotle's father practiced medicine, and since Aristotle himself employs a somewhat biological point of view in his writing (particularly in the construction of his formal systems), a medical definition of the term seems appropriate. The
final source for a curative reading of catharsis springs from the now-famous/infamous passage in the Politics where Aristotle refers to the word as a function of music. This latter argument deserves further discussion, especially in light of the copious number of modern commentators who have treated the reference.

In the Politics, Aristotle differentiates three kinds of music: ethical, practical, and enthusiastic. Ethical music is employed in education; practical music provides entertainment; and enthusiastic music results in catharsis. Aristotle continues by stating that all people experience emotions, such as pity, fear, and religious passion, but some are subject to more extreme emotions than others; enthusiastic music seems to have a calming, "healing," effect on people susceptible to fits of excessive emotions. Although Aristotle promises to treat this subject further in his Poetics (Politics 251), such a discussion is lost or was never written.

Aristotle's employment of the medical sense of the term catharsis in the Politics is quite clear and is cited to advantage by proponents of the purgative definition of the word. Others, however, have argued that Aristotle uses the term in a different sense and with, therefore, a different meaning in the Poetics. H. D. F. Kitto, for example, states that no evidence exists to support that catharsis was a special, technical term in the Ancient Greek language, whose unique usage would imply only one
definition (135). Leon Golden further points out that Epicurus and Philodemus each employ the word in a sense that implies intellectual clarification rather than strict medical purgation ("Purgation" 474). The word catharsis, therefore, may have been in common use among the Ancient Greeks and was certainly subject to metaphorical usages.

Kitto also identifies specific conflicts between Aristotle's applications of the term in the Politics and the Poetics. Because Aristotle differentiates catharsis-producing music from educational and moral music in the Politics, one must assume that he did not consider tragedy to be moral or educational if, in fact, he intended the word catharsis to convey the same meaning in the Poetics (135). Golden presents a similar argument when he states that the subject matter and final aims (one might even say "final causes," although Golden does not use this term) of the Politics and Poetics are quite different and cites specific conflicts between the two documents to illustrate these distinctions. According to Golden, Aristotle was writing from the perspective of a law-maker while composing the Politics, therefore giving primary focus to political, social, and ethical concerns. In the Poetics, on the other hand, Aristotle was interested only in exploring the nature of art and thus restricted his observations to a purely aesthetic point of view ("Purgation" 474-476). The term catharsis, therefore, may have been employed with alternate meanings in the two
works because the context of its use was quite likely different in each case. So even though the purgative theory of catharsis is supported by the literal meaning of the word, the context of the Poetics suggests an alternate definition.

The second interpretation of catharsis to be considered here involves a traditional alternative to the purgative definition and stems from the view that the term refers more generally to a process of purification. The interpretation of catharsis as a purifying function seems to have originated during the seventeenth- and eighteenth-centuries when emotional reactions were highly valued; Aristotelian critics of the period (John Dryden, for example) stated that emotions in the audience, such as pity and fear, were purified through catharsis, rather than being purged—which would instead imply a devaluation of emotions (Keesey 193). From such a perspective, tragic pleasure derives from affective reactions that have been refined through the experience of the play.

On the other hand, twentieth-century commentators usually employ the word "purification" in reference to catharsis as a process of ritual or moral cleansing occurring in the spectator, the text, or both. Gerald Else regards catharsis as a process of the purification of the pathos, "the fatal or painful act which is the basic stuff of tragedy," within the text (423). This purification occurs by means of the pitiful and fearful
incidents of the plot. Else connects Aristotle's preference for tragic pathos containing violence or threats of violence by one family member upon another with the Ancient Greek association of murder with pollution, particularly when the murder involves blood kin. The Greek need for the purification of a polluted person, therefore, is fulfilled through the action of the plot of the tragedy, such as the hero's suffering (pitiful and fearful incidents), but particularly through the anagnorisis, the recognition that the hero has been polluted in ignorance because of his/her hamartia (mistake), rather than through deliberate, conscious actions.

The upshot of Else's analysis of the catharsis question concerns the notion that the process of purification occurs in the text rather than in the spectator. Such a suggestion revolutionized the debate over the meaning of the term catharsis in the Poetics when Else's thorough examination of Aristotle's document first appeared in 1957. Most subsequent treatments of the subject have either built upon or challenged Else's arguments to varying degrees. Isaiah Smithson, for example, accepts Else's emphasis of the moral dimension of tragedy, but relocates the results of the cathartic process within the spectator rather than the text. Catharsis, for Smithson, educates the audience about the moral implications of their own actions (16).
The third and most recent line of development in the catharsis controversy builds upon Else's new perspective of catharsis as a function of the text; these ideas may be traced in the respective work of Kitto and Golden, each of whom supports the "clarification" theory of catharsis. Kitto actually prefers the word "cleansing" as the most appropriate description of the cathartic process, but also mentions "clarification," in passing, as a somewhat equivalent definition (140). Kitto challenges Else's assertion that the pathos "pollutes" the hero, instead defining the tragic act as "shocking." As a result, the process of catharsis operates in a purely literary and aesthetic manner within the text, cleansing the pitiful and fearful incidents of the plot through the mimesis, the imitation of an action, which serves as the source of pleasure for the spectator. In other words, catharsis cleanses the mimesis by framing it as art, removing the harshness of the pathos that would be too painful to witness in real life--without diminishing the emotional impact--ultimately making the action of the tragedy significant and universal to an extent that the audience derives pleasure from their new-found understanding. One of Kitto's strongest arguments for his "cleansing" theory asserts that this definition of the function of catharsis within the text conforms to Aristotle's reasons for writing the Poetics, which were literary and artistic, rather than religious, moral, or medical.
Golden's interpretation of catharsis essentially parallels Kitto's arguments, with three significant distinctions. First, Golden more clearly distinguishes between the words "cleansing" and "clarification," ultimately favoring the latter as the correct translation of catharsis as it is employed by Aristotle. Even though Kitto mentions "clarification" as a similar word choice to his preferred term, "cleansing," Golden's interpretation of catharsis as "clarification" clearly rules out the word "cleansing" as an equivalent meaning. Secondly, Golden returns a sense of importance to catharsis as the end or final cause of tragedy in the Poetics. Both Else and Kitto admittedly devalue the term through their respective definitions, instead placing emphasis upon either the anagnorisis or the mimesis. These elements also play important roles in Golden's analysis, but each depends upon the catharsis for its effect. Finally, Golden deviates from both Kitto's and Else's theories of catharsis by including (actually, re-including) the spectator in the cathartic process. Golden agrees that catharsis functions within the text as a means of clarifying the action, but he also emphasizes its effect upon the audience. Golden even asserts that in some instances the catharsis may be performed by the audience through cognitive responses to the clarification of the action. Golden therefore agrees with Kitto that the source of tragic pleasure derives from a moment of
clarification or insight, related to Aristotle's emphasis upon the pleasure of learning, that occurs in the audience. Golden deviates from Kitto, however, when he locates the process of catharsis itself within the audience as well as the text, rather than in the text alone. (Kitto seems to imply that merely the results of the catharsis [i.e., a cleansed mimesis] cause tragic pleasure in the audience.)

Of the three different descriptions of the cathartic process discussed thus far (purgation, purification, and cleansing/clarification), Golden's view of catharsis as clarification certainly appears the most attractive. More importantly, the cathartic process as defined by Golden also functions in a manner most consistent with a perspective based in chaos theory. By placing the effect as well as the process of catharsis in both the text and the spectator, Golden creates a complex, interactive system that exhibits the trademark feedback loops of chaos theory. Golden's explanation of the term therefore displays a certain level of ambiguity (i.e., does the catharsis take place separately in the text and spectator respectively, or somewhere between the two?), which reflects the ambiguity in the catharsis clause of the Poetics.

Donald Keesey, in fact, points out that the ambiguity of Golden's employment of the word "clarification" as a definition of catharsis best serves the text of the Poetics.
Poetics, for whether Aristotle intended the term to apply to a clarification of the mimesis--or action of the text--or to a clarification in the insight of the audience, "the term works equally well in either context" (203). Golden's ambiguous interpretation of catharsis functions most accurately if Aristotle, in fact, intended the term to apply to both text and spectator. Francis Sparshott, for example, states that Aristotle wrote the catharsis clause vaguely so that a number of possible interpretations would be valid, including the purgation and purification theories as well. By taking such an ambiguous approach, Aristotle's purposes for writing the apparently conflicting Politics and Poetics would ultimately not conflict.

The notion that Aristotle intentionally wrote the catharsis clause of his Poetics in ambiguous language might prove difficult for some to accept, but perhaps the ambiguity of the clause was not intentional after all. Assuming that the term catharsis carries significance as an end of tragedy, then Aristotle was dealing with a very tricky question when he composed the clause, particularly if the term was intended to apply in some way to the pleasure of the spectator. The ambiguity of the wording of the clause may very well reflect Aristotle's uncertainty about--or unclear understanding of--the effect of the tragic experience upon an audience. On the other hand, Aristotle may have recognized his own uncertainty
and purposefully chosen words that would not commit him to a particular point of view. At any rate, the lack of a consensus on the interpretation of catharsis makes the term inherently ambiguous today, even if one accepts Else's and Kitto's assertions that the cathartic process functions only within the text and thus plays little, if any, role in the tragic experience of the spectator.

Taking the ambiguity of the catharsis clause into account, Leon Golden's interpretation certainly remains the most attractive. The theories of the purgation or purification of the emotions of the spectators fail to account for the essentially literary approach Aristotle takes in the Poetics. On the other hand, Else's theory concerning the purification of the pollution of the pathos, as well as Kitto's cleansing of the mimesis to raise it to the level of art, each eliminate the role of the spectator, effectively diminishing the importance of catharsis in Aristotle's dramatic construct. Golden, however, provides the best of both worlds in his explanation of catharsis because he accommodates Aristotle's emphasis upon plot as the most important element of tragedy, while at the same time stressing the significance of the pleasure of the audience, which Aristotle refers to frequently throughout the text of the Poetics. Golden draws these two apparently conflicting aspects of Aristotle's work together so that they actually seem to function in response to one another. The
clarification of the formal structure of the plot contributes to the clarification of the spectator's understanding, ultimately resulting in an experience of tragic pleasure by the spectator deriving from this understanding. But at the same time, the clarification of the spectator's understanding also contributes to the clarification of the plot within the spectator's particular frame of reference. Golden's interpretation, therefore, breaks down the dichotomy between the formal structural aspects of the Poetics and more experiential, affective readings of Aristotle, which has served as the focal point of the catharsis controversy.

At this point, Golden's interpretation of the catharsis question also appears the most attractive from a point of view of chaos theory. By breaking down the dichotomy between the formal and affective aspects of the Poetics, Golden's analysis parallels chaos theory's breakdown of the traditional order/disorder dichotomy into a more continuous and interactive relationship between the two apparent opposites. Furthermore, with respect to the ambiguity inherent in Golden's interpretation, Aristotle's very inclusion of the catharsis clause into the Poetics admits elements of uncertainty and holism into a work that otherwise conforms neatly to the linear reductionism typically associated with the formalism of his other treatises. This element is related somewhat to the Cartesian assertion that the mind may be separated from
the object of study; Golden's translation of catharsis as "clarification" implies that Aristotle must have recognized on some level (perhaps not consciously) that art, and especially literature, involve the fusion of thought and the object of study, the latter being language and thought itself in this case.¹

By interconnecting the formal and the cognitive in a manner consistent with chaos theory's interconnection of order and disorder, Golden's analysis of the catharsis clause holds direct implications for many of the other concepts Aristotle introduces in his Poetics. Typically, interpreters have distinguished the catharsis clause from the remainder of Aristotle's definition of tragedy in chapter six of the Poetics by pointing out that the concept of catharsis seems to appear "like a bolt from the blue" (Kitto 136), whereas each of the other elements of the definition were set up, or anticipated, in previous chapters. Such an assertion, of course, reinforces Else's and Kitto's deemphasis of the significance of catharsis to the principal arguments of the Poetics (which for them concern the formal structural elements of the plot). On the other hand, M. Pabst Battin agrees that the notion of catharsis appears suddenly, but states that Aristotle "was willing, so to speak, to spoil an otherwise perfectly straightforward and rigorous definition to include the notion of catharsis," which "suggests that he accorded it
more than ordinary importance and surely considered it a central feature of tragedy" (301).

Aristotle, however, states that his definition of tragedy is drawn "from what has already been said" (38), and Golden finds reason to take Aristotle at his word. Golden asserts that Aristotle anticipates the catharsis clause prior to his definition of tragedy by logically interconnecting catharsis and mimesis through the following reasoning: 1) tragedy is a form of mimesis, 2) mimesis is a representation of an action, 3) the instinct for enjoying works of mimesis and (therefore) tragedy derives from the pleasure of learning, 4) it follows that the clarification (catharsis) of the incidents of action (mimesis) must provide a pleasurable experience for the spectator. This interconnection of catharsis with Aristotle's prior discussions of mimesis in the Poetics is supported by a later statement (chapter fourteen) in which Aristotle declares that pity and fear, through the events of the plot (mimesis), produce tragic pleasure (49).

Golden, therefore, asserts that the notion of catharsis conforms "with the intellectual signification that makes it an integral part of the general argument of the Poetics" ("Katharsis" 45).

When Aristotle states, therefore, that his introduction of catharsis in chapter six of the Poetics derives from his previous arguments, he has not erred or cited a "missing" section of the document. Golden
demonstrates quite clearly that Aristotle refers to his earlier discussions of mimesis, thus deeply interconnecting the most significant function (catharsis) with the most fundamental element (mimesis) of Aristotle's theoretical construction of tragedy. Because these two elements of tragedy each contribute to the definition of the other, a more detailed discussion of mimesis must be undertaken to clearly understand the whole of Aristotle's tragic construct.

An examination of the definition of mimesis proves tricky, for like catharsis, the interpretation of mimesis has also been debated by critical scholars throughout the history of criticism. Traditionally, the central debate in the controversy over mimesis has concerned the distinction between the copy of an object and the object itself. The question lies in whether Aristotle advocates a sort of literal realism in which the artistic copy remains faithful to the object depicted, or an interpretive form of art in which the copy becomes a newly-created object that merely alludes to the original. More directly, does mimesis imply an ineffable difference between art and the object depicted? If so, does the spectator experience such a difference or merely view the work of art as a mirror-image of the object imitated? As with the catharsis question, Aristotle ambiguously straddles both sides of this debate. He states, for example, in chapter four that people "enjoy seeing
likenesses because . . . they acquire information . . . and discover, for instance, that 'this is a picture of so and so.'" But this same statement is preceded by an assertion that people enjoy seeing representations of objects that would be painful to see in actuality (35). A combination of these two statements implies that the pleasure associated with mimesis derives from the learning experience related to the general truths conveyed through viewing the work of art rather than through the object of imitation; in fact, an association of the process of learning with poetry and the pleasure of mimesis arises repeatedly in the Poetics, affirming learning as one of the most significant theoretical elements of the text. Furthermore, Aristotle observes that representations of people in painting or poetry may be better, worse, or the same as people really are, indicating no preference among the three types; if he indeed preferred realistic imitations as the most accurate form of mimesis, then he could easily have stated his case in the course of this discussion (33). These contradictions are compounded by the accusative that accompanies the word mimesis in the text of the Poetics, which may refer to the original, the copy, or both (Bal 172).

Aristotle indicates that representation takes precedence over imitation, however, when he gives advice to critics of poetry in chapter twenty-five of the Poetics. Since poetry is not held to rigid standards of
correctness, two types of faults may be made by the poet: essential and incidental. An essential fault occurs when the poet makes a mistake "through sheer lack of skill"; an error that occurs because of the poet's lack of knowledge, however, results only in an incidental fault (70). Aristotle states that an incidental fault, although still a fault, may be excused as long as it intensifies the effect of the poem; the poem would be better, however, if the same effect could be achieved without including the fault. As an equivalent example from the visual arts, Aristotle states that "it is a less serious fault not to know that a female deer has no horns than to make an unrecognizable picture of one" (70). Clearly, Aristotle considers skill to be the most important attribute of the poet; even if the content of a work represents untruths, thus straying from "reality," the effectiveness of the poem in terms of pleasure or catharsis may make up for such inadequacies. This view reveals a preference for the more nonlinear, intangible elements of poetry concerning the impact of a work on an audience, as opposed to the more linear process of fact-checking; ultimately, the realism of mimesis as exact imitation must never come at the expense of tragic effect.

Tragic effect even governs the most basic impulse for mimesis and, consequently, for poetry as well, which for Aristotle originates in "human nature" and separates humans from animals. He therefore cites two ultimate
causes for the creation of poetry in chapter four of the Poetics: the instinct for mimesis and the instinct to enjoy works of mimesis. The latter of these instincts derives from the inherent pleasure of learning (not only for philosophers, but others as well) and the notion that humans learn by seeing representations. This cognitive brand of pleasure provides the most direct connection between mimesis and the cathartic process; according to Golden, the tragic pleasure derives from the learning experience associated with catharsis, i.e., the clarification of the incidents of action, or mimesis. Furthermore, this same type of "natural" cognitive pleasure occurs within the individual incidents of action as well, but on a less elevated level.

Aristotle's reliance upon nature (human instinct) as the origin of mimesis, his most fundamental constituent of poetry, is not surprising, for theorists have always employed nature as the ultimate justification for their formal systems. However, where later theorists devised rules for the representation of nature (usually from their own subjective point of view), Aristotle seems to take nature for granted, for he does not attempt to explain why certain forms are more natural than others or even what makes some forms appear more natural. The clearest evidence appears when Aristotle refers to the development of tragedy and comedy from "improvisation"; such a statement implies an element of chance or trial and error
in what he later describes as very structured final
products. Furthermore, because only a few of the families
in the traditional stories have experienced the kinds of
pathos that Aristotle favors, he states that "it was by
chance rather than technical knowledge that the poets
discovered how to gain tragic effects in their plots"
(51). According to Aristotle, once the most effective
stories in terms of pathos and audience response were
discovered, the playwrights then used the same families
repeatedly in their tragedies. Here, Aristotle directly
employs the word "chance" in his discussion of tragedy;
chance not only plays a role in the effectiveness of the
pathos within the plot, but also influenced the
development of the form of tragedy, which, as Aristotle
implies, was discovered gradually through the somewhat
spontaneous selections of traditional stories by the
tragic poets. His strictly linear, causally-oriented
precepts for the ordering of the incidents of action were
therefore determined through chance, chaotic moments of
trial and error and inspiration from which the order of
the most effective examples of tragic pathos would
eventually take form. To this point, Aristotle seems to
present a view of nature consistent with chaos theory, for
as individuals follow their "instincts"3 in pursuit of
mimetic fulfillment, they are likely to exercise thought
processes similar to those described by Koestler in his
theories of inspiration and creativity, efficiently
shifting planes of reference for new sources of artistic inspiration—particularly as techniques such as improvisation are employed. In addition, the great number of "natural" mimetic impulses that Aristotle relates as the rudiments of poetic creation are capable of interacting and feeding into one another in a manner that would encourage unstable, aperiodic behavior in the system; such behavior would, of course, result in the emergence of the forms of comedy and tragedy through self-organization, or order out of chaos, rather than through a rigidly controlled, linear methodology. Although Aristotle certainly implies nothing of this sort himself, he wants to give credit to "natural" instincts and processes, such as improvisation, which at least demonstrates that he acknowledges the power of more nonlinear forces, as opposed to a stricter, linear causality.

Although playwrights discovered the forms of comedy and tragedy gradually through "chance, rather than technical knowledge," Aristotle certainly implies that the most effective forms of each genre had been available long before the time of his writing; the seed had finished germinating, and Aristotle intended to describe the mature flower. For tragedy, the key to its most effective form lies in the proper arrangement of the incidents of mimesis; since tragedy is a representation of an action rather than of individuals, "the incidents and the plot
are the end aimed at in tragedy, and as always, the end is
everything." (40). Aristotle's emphasis upon plot, of
course, reveals his preference for linear order; in fact,
the word order first arises in the Poetics when Aristotle
defines plot as the ordered incidents of action. Order
becomes an important aspect of plot for Aristotle because
of his key concepts of peripeteia (reversal) and
anagnorisis (recognition or discovery), "the two most
important means by which tragedy plays on our feelings"
(40). Furthermore, Aristotle supports his concern for
order in plot with an analogy from the visual arts: "for
if an artist were to daub his canvas with the most
beautiful colours laid on at random, he would not give the
same pleasure as he would by drawing a recognizable
portrait in black and white" (40). The employment of the
words "feelings" and "pleasure" in the two above quotes
indicates that, for Aristotle, the playwright must plan
the events of the tragedy with the discrimination of a
master architect in order to achieve the desired effect,
which is ultimately, and somewhat ironically, the more
chaotic phenomenon of catharsis.

As a contrast to Aristotle's view of the playwright
and to further emphasize the overall importance of order
in the Greek world view, one need only recall the words
that Plato ascribes to Socrates in his Apology, in which
Socrates explains the playwright's "genius" as a natural
sort of inspiration that lacks the more important
qualities of wisdom and understanding (79). From the point of view of Plato's Socrates, inspiration clearly relates to passion, or irrationality, while wisdom and understanding represent rational, ordered modes of thought; this delineation may be observed more directly in Plato's *Ion*, where Socrates goes so far as to ascribe a divine origin to genius and depreciates the practical value of poetry. This position works against Aristotle's view of the playwright as a master architect who must think linearly to correctly order the constituent parts of his work and achieve the maximum effect. Plato's refusal to include a position for the poet/playwright in his *Republic*, therefore, also indicates a distain for or distrust of genius; essentially, Plato embraces a false dichotomy of order versus disorder, rationality versus genius, and practicality versus passion. For Aristotle, however, genius may inspire order; pleasure and passion as well produce positive results in tragedy by inspiring the spectator to learn about what has been witnessed. Finally, Aristotle holds such high regard for order in plotting because through this order the underlying chaotic process of catharsis may be achieved, both with respect to the structure of tragedy, as well as in the emotional and cognitive responses of the audience.

In addition to his high regard for order in plotting, Aristotle also emphasizes the importance of "size." In the conclusion to chapter seven, for example, Aristotle
states that "beauty is bound up with size and order" (42). He goes on to assert that details become lost in something that is too small, while something too large frustrates the comprehension of unity or wholeness in the object; the proper length of a plot should, therefore, be appropriate for the completion of the action according to "probability" or "necessity." Compared to many of the other linearly, causally informed precepts Aristotle outlines in the Poetics, his discussion of size appears quite flexible. For example, Aristotle places equal importance upon specific details and wholeness as factors governing size in his overall aesthetic construct, which emphasizes the included middle, rather than the dichotomous extremes, thus implying a continuum of part and whole. The same applies in chaos theory, for a sensitive dependence on initial conditions dictates that no detail may be ignored, while approaches to qualitative understanding, such as strange attractors, emphasize wholeness.

The relationship of part and whole also plays an integral role in Aristotle's discussion of unity of plot, which, of course, means unity of action in the Poetics; similar to his prescription for determining the size of the plot, what should be included in the action is governed by "probability" and "necessity." Although at first this precept appears as equally unrestrictive as Aristotle's employment of the same two words with respect
to size, he dictates that, with respect to the action of the plot, a unified whole implies that each individual incident of action must be necessary to the whole; in other words, if any individual incident of action is removed, then the effectiveness of the overall plot would be disrupted. "for if the presence or absence of something makes no apparent difference, it is no real part of the whole" (43).

Of the "three unities" that would later be championed by the neoclassicists, Aristotle advocates only the unity of action with any vigor in the Poetics, and here he clearly advances a much more rigorous definition of this unity than the most common neoclassical interpretation of a single plot line. Rather than merely stating that the plot should contain no extraneous incidents of action and be confined to a single subject, Aristotle proposes that each event of the plot should be necessary to the action to such an extent that the overall plot would suffer in its absence. Such a point of view not only linearizes the plot by emphasizing causal relationships, but also endorses a linear, clockwork relationship between part and whole. Under a mechanistic, Newtonian world view, every part must function properly for the whole to operate; every gear in the clock represents a necessary link in the causal chain. In an unstable, aperiodic system, however, the absence of one part does not necessarily damage the whole irreparably; water may be removed from a stream, or
a limb may be removed from a tree (or even a human body), and although some effect certainly results, the operation of the overall system will not necessarily be disrupted terminally.

As mentioned earlier, a nonlinear relationship between part and whole also implies a continuous, rather than dichotomous, relationship between the universal and the particular. In the ninth chapter of his Poetics, Aristotle seems at first to dichotomize the universal and particular by making them the respective domains of the poet and the historian. According to Aristotle, the poet deals with what might happen according to probability and necessity, while the historian treats events that have actually happened; the poet, therefore, handles subjects involving universal truths, while the historian works only with particular facts. The work of the poet, and particularly the tragedian, is therefore more philosophical and worthy of serious attention than that of the historian. Aristotle does not, however, completely separate the universal from the particular in this discussion, for he states that tragedians traditionally draw their characters and plots from history, rather than fiction; the tragic playwright must therefore elevate these historical characters and events to the level of the universal in order to be effective. The particular facts of history, therefore, merge and even interact with the universal truths of fiction in the form of tragedy.
For the same reasons that extraneous incidents of action should be avoided when constructing tragic plots, Aristotle states that episodic plots are the worst kind of "simple" plot (one which lacks a recognition and reversal) because the sequence of events disregards probability and necessity, thus breaking the continuity of the action. This assertion, of course, conforms with Aristotle's emphasis in the previous chapter upon the necessity of a causal relationship between the incidents of action. Although such a view concerning the construction of plot appears quite linear, Aristotle does recognize that unexpected events more effectively heighten pity and fear than incidents of action that appear mechanistically constructed by the playwright, or merely accidental. The favored types of events he refers to must seem logical as well as unexpected, for "even chance occurrences seem most remarkable when they have the appearance of having been brought about by design." As an example, Aristotle refers to a myth in which a statue of Mitys falls upon and kills the man who had caused Mitys' death; such an incident does not seem like a mere chance occurrence (45). This perspective not only advocates a kind of determinism that one might refer to as poetic justice, but an element of determinism also resides in the playwright's engineering of an event such as the example given above. At the same time, however, the effectiveness of the incident of action also relies upon the illusion of chance, or
unpredictability, in its occurrence. Here, Aristotle seems to favor a kind of indeterminate determinism with a strong affinity for the unpredictable yet deterministic view of the universe supported by chaos theory.

Such allusions to unpredictability are often outweighed by other more linearly causal statements in the Poetics, however. For example, after discussing one type of simple plot, the "episodic," Aristotle defines simple and complex plots in chapter ten as those which respectively lack or contain a peripeteia (reversal), an anagnorisis (recognition), or both. The introduction of the peripeteia or anagnorisis into the plot also exhibits Aristotle's preference for causality because either of these events should occur as "inevitable or probable" consequences of the prior incidents of action, "for there is a big difference between what happens as a result of something else and what merely happens after it" (45).

The most effective plots must not only be of the complex variety (containing a recognition and/or reversal), however; such plots must also represent actions that are capable of awakening pity and fear. In a discussion of several examples of plot reversals, Aristotle decides that 1) good persons who regress from good fortune to bad, and 2) evil persons who experience a change of fortune from either extreme to the other, each fails to arouse pity and fear. This leads to an exploration of the sources of these tragic emotions and
the following conclusions: pity is awakened by undeserved misfortune, while fear is aroused by the misfortune of someone with whom the audience can identify. The most tragic of reversals, therefore, entail a transition from prosperity to misfortune; since Aristotle has already ruled out reversals which involve both good and evil persons in this respect, he decides that there must be a medium between good and evil that most satisfactorily produces pity and fear. He then describes the most tragically appealing reversals as those which involve a person of high repute and prosperity who falls into misfortune because of an hamartia (error), rather than through vice or depravity.

By introducing the concept of the hamartia, Aristotle has broken down another dichotomy, that of good and evil. Even though the best tragic plots end in misfortune, a "good" person who falls from prosperity into misfortune through no fault of his/her own only arouses "disgust," while an "evil" person who faces the same situation may appeal to one's humanity, but does not inspire pity or fear because the misfortune is deserved and most, if not all, spectators would refuse to identify with a totally evil character. The type of character most "like ourselves," therefore, lies on the continuum somewhere between good and evil. In addition, the misfortune of the character must be undeserved, yet not so undeserved as to arouse disgust; the hamartia, therefore, functions as
evidence of an essentially good character's all-too-human fallibility. This complex approach to characterization departs from the neoclassical notion of poetic justice, in which one-dimensional good and evil characters are rewarded and punished accordingly. Instead, Aristotle presents a view of human behavior conforming to a universe of included middles, rather than dichotomies. Furthermore, the notion of the *hamartia* resonates with the phenomenon of a sensitive dependence on initial conditions occurring in unstable, aperiodic systems; in a manner quite analogous to the butterfly effect, the tragic protagonist's error becomes magnified (especially through a recognition) until a seemingly undeserved reversal of fortune occurs, thus producing pity and fear, and ultimately, catharsis.

Later in the *Poetics* (chapter twenty-five), Aristotle again displays a relative--and therefore continuous--view of good and evil when he discusses the moral judgement of acts that are represented in works of poetry. Before judging the goodness or badness of something that is said or done in a work of poetry, the critic should first consider who said or did it, to whom it was said or done, as well as the occasion, means, and reason concerning the incident. Something said or done in a poem may appear obviously good or evil, yet occur for the purposes of averting a greater evil or bringing about a greater good. As with qualities of character, each incident of action
therefore lies on a continuum containing relative degrees of goodness or badness, depending on a number of circumstances.

A continuum of good/evil, as well as order/disorder also arises in Aristotle's more detailed discussion of character in chapter fifteen, though more analogously, as he calls for a mixture of universal and particular traits in the construction of tragic characters. In other words, the playwright must portray enough specific traits, including defects, to make the character recognizable, yet at the same time depict the character as a decent (good) person, because "tragedy is a representation of people who are better than the average" (52). This dual attitude toward character illustrates the reasons for debate among modern scholars concerning whether Aristotle advocates realism or idealism in drama. Aristotle states, for example, that four qualities contribute to effective characterization, the first being that the character display goodness through his/her speech and actions; here Aristotle clearly favors a kind of universalization of character that supports Golden's view of Aristotle's theoretical arguments, in which tragedy (through catharsis) encourages a learning experience, particularly concerning the universal human condition. Aristotle's second quality, that a character should be depicted appropriately with respect to his/her class, gender, etc., also universalizes characterization (through
categorization) more than it individualizes or particularizes character; this quality resembles the neoclassical precept of "decorum," which also emphasizes universality (although the neoclassicists borrowed this term from Horace, rather than Aristotle). The third quality of a well-crafted character, however, appears more realistic than universally idealized; this quality Aristotle vaguely refers to as "like," which is typically interpreted to mean "lifelike" with implications of human complexity. Aristotle says nothing more about this precept for characterization, except that it is different from making characters good or appropriate. The final quality is "consistent," which seems to apply equally to both universal and realistic arguments concerning characterization, for a consistent trait or mannerism might individualize the character in relation to other characters or, alternately (and perhaps in some instances, simultaneously), universalize the character with respect to a broad category such as class or gender.

The upshot of chapter fifteen is that Aristotle believes the construction of the characters of a tragedy should derive directly from the plot; his emphasis upon the goodness of a character, for example, echoes his earlier discussion of plot in which he stated that the tragic protagonist should be an essentially good person who commits a mistake (hamartia). In addition, he points out that characters, like the plot, should follow
probability and necessity, which provides the same impression of an indeterminate determinism that he had earlier suggested in plot (that an event should occur unexpectedly, yet at the same time provide the appearance of design). The balance and even interplay, in other words, between order and disorder that appeared in Aristotle's treatment of the plot of tragedy may also be found in his reasoning concerning characterization, for both the universal (goodness) and the particular (hamartia) must be emphasized for the character to serve the plot.

Because characters perform the acts of mimesis in tragedy, Aristotle states that the element of character should be drawn according to the "nature" of the individuals who carry out the incidents of action in order to most appropriately serve the plot; such a statement supports Aristotle's position that character should contain a combination of the universal and particular, especially through a framework of chaos theory, in which the universal and particular not only exist side by side in nature, but also interact and feed into one another. Aristotle carefully delineates the tragic element of "thought" with respect to character, however, by stating that thought arises when the figure is "proving a point or expressing an opinion" (39). At first, this contrast appears to dichotomize character and thought, for the former is described as a more instinctual element, while
Aristotle relegates the latter to the more linear or logical aspects of the individual mind.

However, in his more detailed discussion of thought in chapter nineteen of the Poetics, Aristotle defines thought much more broadly as any result produced through the use of language. Aristotle provides the same linear examples, such as proofs and refutations, but also lists "the awakening of emotions such as pity, fear, anger, and the like," as well as exaggerations and devaluations as instances of thought in tragedy (58). Aristotle, therefore, incorporates both the linear and the nonlinear within the realm of appropriate tragic thought by grouping together such orderly linear concepts as proof and refutation with the more chaotic nonlinear emotional effects of tragedy; one may assume that his inclusion of the tragic emotions of pity and fear in this discourse inherently links the element of thought with the more nonlinear process of catharsis, as well.

Like most other elements of tragedy, thought must also serve the action of the play in order to function effectively, whether the thought is intended to produce pity and fear or to provide a sense of importance or probability. Aristotle distinguishes, however, between two different means through which thought may be employed. In the awakening of pity and fear, for example, thought should be related without explicit explanations; the tragic emotions must be produced through the natural and
truthful actions of the characters, rather than through rhetoric. Essentially, Aristotle states here that humans universally tend to experience certain emotions when confronted with certain circumstances (Else 565); the playwright, therefore, should rely on these more natural means of arousing emotion (through the plot: the natural actions of the characters), rather than attempting to incite emotions through the language of the play alone. If the playwright intends to employ thought for the purposes of importance or probability, however, then such effects should be produced directly through the speech of the characters.

The significance of this discussion directly concerns the process of catharsis and the playwright's ability to effectively employ this essential element of tragedy. In order to arouse the cathartic emotions of pity and fear, Aristotle basically states that the playwright must avoid rhetoric, instead making the characters of the tragedy behave in a such manner that the audience will spontaneously identify with the characters and their situations. This conclusion supports the notion that catharsis operates in a manner similar to chaos theory's notion of self-organization; certain circumstances, when related truthfully through the action of the tragedy, trigger an emotional response in the audience which results in a new level of order, or in this case, understanding--an understanding that, for Aristotle, even
runs as deep as what he proposes to be universal human experience. In other words, by appealing to human experience (audience reaction/emotion), the playwright helps the audience to learn about human experience (catharsis/cognition); the Cartesian separation of the mind (thought) from the object of study (tragedy) does, in fact, break down in the Poetics. 7

In order for the cognitive and emotional elements of catharsis to function most efficiently, Aristotle states that a well-constructed plot must have a "single interest," implying one plot line, or one change from prosperity to misery due to a character's hamartia. The double plot, in which the good characters are rewarded and the bad characters punished, ranks only second best for Aristotle (49). Although he admits that this type of plot is the most popular with the common play-goer, Aristotle blames the "feeble taste" of the audience for their failure to comprehend the "proper" tragic pleasure. Comedy, on the other hand, more easily accommodates the double plot line because, as Aristotle describes in a tone that seems somewhat sarcastic, "the bitterest of enemies . . . go off at the end as friends, and nobody is killed by anybody" (48-49). Perhaps Aristotle displays his frustration in this section of the Poetics with spectators and critics who do not seem to appreciate the cognitive pleasures associated with learning that Golden interprets from Aristotle's discussion of catharsis, and which
Aristotle himself ascribes to "human nature"; clearly, the double plot line does not lend itself to the appropriate pathos nor to the increased universal significance of the mimesis necessary to stimulate cognitive pleasures and the pleasures associated with emotions such as pity and fear.

At another point in the Poetics (chapter eighteen), Aristotle refers more directly to both the cognitive and emotional pleasures of tragedy when he reasserts his belief that the playwright should confine the plot to one story and particularly avoid the epic structure. The proper tragic effect is achieved, therefore, when the tragedy contains a single plot with a reversal; Aristotle defines this effect as "one which is tragic and appeals to our humanity" (57). Examples of plots which might achieve such an effect may be seen in the clever but wicked man who is outwitted or the brave but unjust man who is defeated; clearly, these examples also rely heavily upon the hamartia of the character. Aristotle then quotes a witticism of Agathon to support his examples: "it is plausible that many things should also happen contrary to plausibility" (Else's translation [541]). Although Else dismisses this latter statement as ironical and a testament to Aristotle's weakness for Agathon's wit, it makes sense when one considers that to outwit a clever man or defeat a brave man would appear to lie outside the realm of "probability," which Aristotle preaches repeatedly throughout the Poetics. In a manner, Aristotle
quotes Agathon in order to defend his preference for the *hamartia* when it seemingly conflicts with his emphasis on probability.

From a point of view of chaos theory, however, Agathon's witticism appears even more significant: in a universe governed by an indeterminate determinism, unplausible events suddenly seem much more plausible. The statement that was so easily dismissed by Else, therefore, also serves another purpose; it not only supports Aristotle's preference for unexpected events in tragedy, but finally provides a logical reason for this preference: the incidents of action must conform to probability, but improbable events occur often enough so as to make them probable--at the playwright's discretion. As Aristotle states elsewhere in the *Poetics* (chapter twenty-four): "Probable impossibilities are to be preferred to improbable possibilities" (68). Clearly, necessity must also become a factor at this point; the improbable event should be necessary to the plot, particularly for the purposes of arousing pity and fear.

For Aristotle, the most effective means of arousing pity and fear come through the structure of the plot, rather than through the spectacle of stagecraft, for an appropriate story will provoke pity and fear in one who only hears about the events of the plot, without ever seeing it performed on the stage. This argument strongly supports scholars such as Else, Kitto, and Golden, who
interpret catharsis as a formal function of the plot, for the mark of a good playwright, according to Aristotle, lies in the ability to awaken pity and fear through the incidents of action alone, and these emotions are then responsible for the clarification of the action.

Furthermore, the most pitiable and fearful events in tragedy involve characters who perform deeds that inflict suffering upon persons close to them, such as family members; because the traditional stories abound with such events, the playwright should not tamper with them, but may use imagination to effectively relate the material. To elaborate upon the manner in which the playwright might tell the story, Aristotle lists four ways that pitiable and fearful deeds may be handled: the character must either 1) do the deed or 2) not do it, and the deed must be done 3) with full knowledge or 4) mistakenly in ignorance. Aristotle states that the least acceptable of these four alternatives arises when the protagonist possesses full knowledge of what he/she is about to do but then fails to act. A more suitable situation occurs when the deed is actually done in full knowledge, such as in the case of Medea killing her children, because at least some form of pathos has occurred; an even better example of the tragic act takes place when the deed is done in ignorance and the truth is revealed after the fact, as with Oedipus' slaying of Laius. But, rather surprisingly at this point, Aristotle concludes that the best tragic
situation of all involves the character who is intent on doing the terrible deed in ignorance, but recognizes the truth in time to avert the misfortune.

Aristotle's determination that the most satisfying of the four tragic situations he describes in chapter fourteen entails the prevention of misfortune seems to directly contradict his earlier assertion (in chapter thirteen) that the reversal from prosperity to misery most appropriately suits tragedy. According to Sheila Murnaghan, this apparent contradiction actually reinforces tragedy's tendency to present pathos and simultaneously distance these same events of misfortune and suffering; the Greek practice of locating acts of violence off-stage also illustrates this tendency. Murnaghan states that even though the shocking or horrible incident is averted because of recognition in Aristotle's ideal plot, the perception of the tragic pathos still exists in the minds of the spectators; in other words, they have already imagined the terrible deed and have benefitted, not only from a cathartic exposure to the understood act, but also by learning that such deeds may be prevented (763).

Murnaghan's explanation of the apparent contradiction between Aristotle's ideal plot and his assertion that tragedy requires a central act of pathos conforms well with Golden's interpretation of the catharsis clause. By fearing for the individuals involved in the intended act of pathos and by pitying the protagonist's potential
suffering upon recognition of the truth after the act has been committed in ignorance, the audience experiences the proper tragic emotions. By learning that such acts may be averted, even in the face of a character's hamartia, the audience experiences the cognitive pleasure that, according to Golden's arguments, Aristotle associates with catharsis. Perhaps most importantly, however, Murnaghan places the process involving the initiation of these tragic pleasures directly in the minds of the audience, which supports Golden's statement that the catharsis may sometimes be produced by the audience, rather than in the text alone. Furthermore, even the formal function of catharsis in the plot relies upon the imagination of the audience; without the mind of a reader or spectator for assistance, no tragic pathos would occur in Aristotle's ideal plot.

In addition to an effective pathos, Aristotle's ideal plot must also contain a striking anagnorisis (recognition). He therefore discusses the various kinds of recognition scenes, determining that the most effective are those that derive from the incidents of action; the ideal discovery should consist of a startling recognition that results from the probable events of the plot. Here again Aristotle commingles the startling, or unpredictable, with the probable, or deterministic, in a manner that parallels chaos theory. One departure from chaos theory, however, may be observed in Aristotle's
insistence that the discovery arise directly from the incidents of the plot, which emphasizes causality; this causality, however, would not necessarily be linear if the result appears unexpected, as Aristotle prefers. Aristotle's predilection for unpredictable discoveries may even be observed in his least favorite type of anagnorisis, that which relies upon visual signs or tokens, for he states that this sort of discovery works best when the recognition of the sign or token appears unexpectedly. His more preferred discoveries, those which occur through the reasoning of a character, at first appears to support Aristotle's penchant for linearity, particularly in light of the Western association of reason with linear thought processes. From a point of view of chaos theory, however, the moment of recognition may be perceived as a process of self-organization, for there is an instant in which the order of understanding suddenly arises from the disorder of confusion in the brain of the reasoner, as Koestler describes in his theories of problem-solving and creativity. Under Koestler's model (enhanced through chaos theory by Briggs and Peat), instances of insight occur when the mind of the reasoner enters a non-equilibrium state through concerted effort and frustration. Some occurrence outside of the trapped thought patterns of the reasoner then sets the mind in a new pattern of thought or a new plane of reference wherein lies the discovery.
Koestler's theories also apply to the advice Aristotle lays out for the tragic playwright in chapter seventeen of the *Poetics*, beginning with the pronouncement that the playwright must "keep the scene before his eyes" as much as possible when composing plots and the kind of speech to go with them (54). This guideline seems to evoke hints of both order and disorder as Aristotle elaborates upon it. For example, he states that if the poet can see the events of the plot clearly, as though an eyewitness, then the plot will be most likely to present what is appropriate and least likely to contain inconsistencies; such a statement might linearize the role of the playwright, particularly if a restrictive interpretation of the word "appropriate" is employed. On the other hand, Aristotle later states that playwrights should make the gestures appropriate to the words they ascribe to their characters, for those who can make themselves actually "feel" the emotions of the play will be the most convincing. To this point, Aristotle is invoking a more nonlinear state of mind as an appropriate approach to the creation of tragic poetry; he most likely recognized that the degrees of appropriateness and consistency of the events of the play are much easier to quantify than the degree of emotional truth in a character's speech. Ultimately, Aristotle argues in this section that playwrights should write as though they are both simultaneously witnessing (with the implications of
an objective observer) and experiencing (subjectively) the incidents of action they compose; thus he concludes that "poetry is the product either of a man of great natural ability or of one not wholly sane; the one is highly responsive, the other possessed."

In this latter statement, Aristotle seems to set up a dichotomy between order and disorder: ability vs. inspiration. But he uses the words "natural" ability, rather than "technical" ability, which, on the other hand, might imply that formal skills alone will not produce a great play. A playwright with "natural" ability would create emotional truth from an instinctual source, rather than through a lapse of sanity; for this reason, Aristotle describes such a playwright as "highly responsive," rather than "technically brilliant" (55). This depiction resonates with Koestler's theory that moments of inspiration derive from shifts in the individual reference planes of (in this case) the playwright. When he employs the words "natural ability," therefore, Aristotle seems to be describing a creative genius who is "highly responsive" to the planes of reference from which he/she derives inspiration. Furthermore, since such a playwright would simultaneously maintain the faculties necessary for sustaining appropriateness and consistency within the incidents of action, Aristotle seems to most strongly advocate a balance and even interplay between order and disorder in
the form of the cognitive and emotional states of mind necessary to the creation of tragic poetry.⁹

According to Aristotle, therefore, both cognitive and emotional processes must operate in both the creation and experience of tragedy. The playwright should not only "feel" the emotions of the characters when composing the play, but should also witness the events as though an objective observer; likewise, the audience will feel the emotions of pity and fear, as well as experience a cognitive pleasure through learning about what Aristotle considers to be the universal human experience. In each case, the emotional and cognitive facets of tragedy parallel the continuous, interactive view of disorder and order supported by chaos theory.

Chaos theory's relationship between order and disorder may also be observed in both the creative and experiential aspects of tragedy with regards to its formal and more intangible components. The playwright, for example, must follow the ordered rules Aristotle lays out for the construction of the most effective tragic plot in order to achieve the more intangible end of catharsis; furthermore, Aristotle believes that this ideal plot was derived over time through instinct, improvisation, inspiration, and trial and error. At the same time, catharsis clarifies both the structure of the play (mimesis) and the emotional and cognitive responses of the audience. In other words, the ordered plot of the tragedy
interacts with the more chaotic process of catharsis; the
two feed into one another, forming a chaotic system that
reaches from the creation of the play to its ultimate
reception.

In addition, chaos theory's relationship between
order and disorder is also reflected through Aristotle's
description of the hamartia, which requires that the
tragic protagonist display both good and bad qualities.
The same may be said for the relationship of the universal
and particular in the creation of the tragic character, as
well as in the relationship of part and whole in the
tragic plot.

Finally, Aristotle's emphasis on "probability" and
"necessity" throughout the Poetics, while simultaneously
holding high regard for the unexpected, presents an
aesthetic similar to the indeterminate determinism
supported by chaos theory, as illustrated through the
process of self-organization (the butterfly effect).
Self-organization also plays an important role in both the
creative and experiential aspects of tragedy, especially
with respect to Koestler's theories of inspiration and
creativity.

All of the above-mentioned elements are tied together
by Aristotle's concept of catharsis, as interpreted by
Leon Golden. Catharsis supplies the chaotic moment in the
otherwise linearly formal structure of tragedy that not
only makes sense of the plot, but also provides the
pleasurable experiences of cognition and emotion for the audience. In this manner, catharsis functions quite analogously to Koestler's theories and the butterfly effect, spontaneously generating its effects through the incidents of action, as well as in the minds of the audience. Aristotle, of course, had none of this in mind while composing the Poetics; however, by including ambiguous concepts such as catharsis, which he himself could not—or chose not to—entirely explain, he acknowledged an appreciation of the more ineffable, chaotic aspects of theatrical art, which has made his criticism so valuable throughout Western history.

End Notes

1 The catharsis controversy itself illustrates that even in criticism, which supposedly lies firmly within the realm of linear reductionist thought, the mind may not be objectively removed from the object of study. Information theory states that when an organism capable of functioning on various levels, such as the human brain, encounters ambiguous or "noisy" input, the organism self-organizes its own structure to make ordered information out of the noise (Paulson 40). Furthermore, the notion of a sensitive dependence on initial conditions dictates that the noisier the input, the more likely the final information will vary from organism to organism. Since Aristotle has provided interpreters with a particularly noisy message in his catharsis clause, the initial conditions (philosophical, literary, and cultural biases) of the interpreters virtually guarantee diverse analyses.

2 Aristotle stresses each of these three points repeatedly in the Poetics.

3 "Instincts" is, of course, a culturally loaded term. From Aristotle's point of view, the instincts of the Greek playwrights were primal and "natural," but from a modern point of view, such instincts were decidedly "Greek." Taking chaos theory's emphasis upon evolution and adaptability into account, however, terms such as "instinct" and "nature" work because "culture," rather
than being the single, dictatorial determinant, becomes just one more source of input in the creative maelstrom.

4 This analogy works only from a structural point of view concerning an architect's duties. An architect may, of course, employ instinct, intuition, or artistic genius in the creation of aesthetic effect.

5 Plato asserts the same in much greater detail in the Republic.

6 One could, of course, argue that character is also linear in the context employed by Aristotle by pointing out that the creation of character in tragedy occurs through the pen of the playwright. Although the playwright certainly employs instinctual and nonlinear thought processes in the creation of character, the playwright's mind must also operate in the linear realm to some extent. In the fictional universe of the play, however, character resides more instinctually in the person represented; Aristotle is making the same distinctions between character and thought for fictional beings that he makes for real people in works such as his Politics and Nichomachean Ethics.

7 Although Descartes separated the mind of the observer (in a scientific or analytic sense) from the object of study, and Aristotle refers to the thought of the audience, rather than the critic/theorist, clearly the tragic critic must experience the play (and the tragic emotions) before he/she could credibly comment on it. The Cartesian separation breaks down because participation in the tragic experience destroys objectivity.

8 Perhaps Aristotle is referring to the difference between feeling the emotions of the character and believing one's self to be (or be possessed by) the character?

9 Perhaps the "insane" playwright that Aristotle only briefly mentions, apparently in humour, maintains more consistent, even permanent, contact with his/her inspirational planes of reference.
Chapter Three: Dryden's "Essay of Dramatic Poesy" and the Labyrinth of Design

John Dryden wrote his most famous work of dramatic criticism, "An Essay of Dramatic Poesy," relatively early in his literary career. First published in 1668, the essay was actually composed earlier (1665-1666?) (Hume 7), only a few years after the onset of the Restoration. The work is significant for several reasons. First, it explores the nature of English drama in the years following the Commonwealth and its disruption. Furthermore, because of its early date of composition, the essay may be regarded as a reflection of the embryonic stages of the evolution of Dryden's own critical thought. This work's greatest significance, however, may lie in its contribution to English criticism as a whole; it does what the dearth of significant English dramatic criticism before Dryden fails to accomplish: establish a truly English mode of critical thought. This achievement often encourages scholars to treat Dryden's essay as the English equivalent to Aristotle's Poetics.

Such comparisons with Aristotle have traditionally led to a perception of Dryden ("the father of English criticism," as Dryden scholar Hoyt Trowbridge would have it [1]) as an arbiter of the rules of English dramatic literature. But according to Robert D. Hume, Dryden does not employ absolute standards in his criticism; rather, he seems to favor broader, more general rules that allow him to explore the nature of drama from several points of view.
view. Because the Commonwealth's restrictions on theatrical performance had brought playwriting to a virtual halt as well, Dryden did not have an established tradition of English drama to draw from, leaving only the Ancients and the French as measuring sticks with which to compare the English plays of the Restoration.

Furthermore, Hume speculates that Dryden would have had few preconceived notions about playwriting during the early period of his career in which he wrote "An Essay of Dramatic Poesy." For these reasons, Hume refers to the nature of Dryden's criticism as speculative rather than prescriptive; instead of attempting to derive a rigid formal aesthetic, Dryden simply asks the question---"how should the English be writing plays?"---and examines the possibilities (Hume 2-7).

From a perspective of chaos theory, at least some of the possibilities that Dryden examines should involve an ineffable, chaotic moment related to the creation and/or experience of drama. This chapter will therefore examine "An Essay of Dramatic Poesy" through a framework of chaos theory, searching for such a moment in and in between the arguments that Dryden ascribes to the four disputants that make up the dialogue form of the piece. Beginning with the definition of a play provided by one of Dryden's characters near the start of the essay, this chapter will then explore the following issues: 1) Dryden's view of nature and human nature, 2) his terms "just" and "lively,"
3) the "general" and the "particular" in the essay, 4) self-similar patterns in both the form and content of the essay, 5) the notion of an indeterminate determinism, 6) self-organization, and 7) the term "changes of fortune" in the definition of a play.

Because Dryden wrote "An Essay of Dramatic Poesy" in dialogue form, a brief sketch of the characters involved in the dialogue and their positions will be helpful to the following discussion. The four characters are named Crites, Eugenius, Lisideius, and Neander; their discussion occurs as they ride together in a boat on the Thames. Essentially, three debates take place concerning relative approaches to playwriting. First, Crites espouses the merits of the plays of the Ancients over those of the Moderns (Dryden's contemporaries); Eugenius responds to Crites arguments, defending the Moderns. Secondly, Lisideius champions the French approach to drama relative to the English; Neander answers with a defense of the English playwrights. In the final debate, Crites and Neander respectively argue against and for the employment of rhyme in tragedy.

Hume's explanation of Dryden's purposes for writing "An Essay of Dramatic Poesy," (discussed earlier) provides the clearest justification for the dialogue form of the work. By employing four different speakers to advocate the respective dramatic approaches of the Ancients, Moderns, French, and English, Dryden discretely explores...
each argument in a manner that presents itself as unbiased at face value. Although scholars have traditionally presumed that Dryden subordinates certain points of view in favor of others, even identifying himself with one or more of the participants of the dialogue,¹ Hume rejects this notion, instead asserting that Dryden is actually concerned with discovering some sort of "essence" of drama, particularly with respect to the nature of its more ineffable, pleasure-giving aspects. Dryden, according to Hume, employs the four characters and their respective opinions because he is, in fact, confused about the relative significance of the most essential elements of drama; the dialogue, therefore, provides a forum for an exploration that utilizes various points of view, rather than merely serving as a vindication of contemporary English playwriting.²

Unfortunately, however, Dryden never quite succeeds in pinpointing a definition of the subject of his exploration: the elusive, ineffable essence of drama that, according to chaos theory, may be described as lying on the liminal border between order and disorder, or more simply, in the "chaotic moment." Dryden's inability to formulate his own ideas concerning this matter is displayed in the vagueness that appears at various points throughout the essay. One of his most obvious moments of ambiguity arises in the very definition of a play provided
by Lisideius--but which Dryden admits is his own as well3-
-near the beginning of the dialogue: "a just and lively
image of human nature, representing its passions and
humours, and the changes of fortune to which it is
subject, for the delight and instruction of mankind."
Clearly, this definition could easily apply to any form of
literature, a point which Dryden acknowledges when Crites
objects that Lisideius' definition is merely "a genre et
fine" (ll).4 The vagueness, therefore, may suggest that
Dryden himself mistrusts genre restrictions; after all,
such a distrust is alluded to several times throughout the
essay. However, other ambiguities may also be recognized
in confusing terms such as "human nature" and
"representing," which Dryden employs in the definition but
never adequately defines in the essay.

The term "human nature" appears vague in Dryden's
definition of a play because he fails to employ a
consistent vision of nature throughout the essay. The
crux of this inconsistency lies in the difference between
the realistic and exaggerated (or imaginative)
"representations" (the other nebulous term--the two are
intricately connected) of nature in art. For example,
Frank Harper Moore states that, although Dryden accepts
Aristotle's idea that audiences are "naturally" delighted
by realistic imitations of nature, Dryden complicates
Aristotle's view of audience pleasure by introducing the
term "variety"--employed frequently throughout the essay--as another source of spectator delight. Moore identifies two types of "variety," as employed by Dryden: 1) the presence of "diverse elements" within a play, such as multiple plots, and 2) novelty (the familiarity of the Greek stories, for example, destroys novelty) (29).

From one point of view, Dryden's appeal to variety merely broadens the category of imitations that may "naturally" cause spectator delight. But on another level, one could claim that Dryden has amended or, from a neoclassical perspective, "exaggerated" the Aristotelian view of nature itself. One reference to the notion of a changing perspective of nature appears in the debate between Crites (defending the Ancients) and Eugenius (defending the Moderns); Crites comments on recent advances in science and philosophy by asking (sarcastically?): "Is it not evident in these last hundred years . . . that almost a new nature has been revealed to us?" (11-12). Eugenius later responds to this remark by asserting that the Moderns simply improved on the original vision of nature established by the Ancients: "We draw not therefore after their lines, but those of nature; and having life before us, besides the experience of all they knew, it is no wonder if we hit some airs and features which they have missed" (17). Certainly some of the "airs and features" that Eugenius cites must derive from "diverse elements" or "novelty" within drama; such
improvements upon the Ancients' view of nature would therefore fall under Dryden's category of "variety." One such example arises in Neander's (defender of the contemporary English) discussion of verse, in which he states that the best plays incorporate a variety of cadences; this variety helps the actor to sound "natural" and helps keep the audience from becoming bored (60).

Through Eugenius' statement (quoted above), Dryden seems to suggest that nature itself does not change through the ages, but rather, human perceptions of nature become more acute. Both Crites and Eugenius, therefore, appear to advocate "realistic" views of nature; they differ only at what they define as "realistic." Eugenius, for example, acknowledges that the Ancient Romans copied nature when they created dramatic characters but states that their characterizations were shallow, "as if they had imitated only an eye or an hand," rather than an entire person (20). This criticism demonstrates that Eugenius agrees with Crites concerning the necessity for a literal sort of realism in drama but faults the accuracy of the Romans' realism--which Crites-the-classicist admires. But Eugenius also seems to speak of realism when he addresses the subject of passion, remarking that "nature is dumb" during occasions of passion, such as in the unexpected meeting of lovers: "to make [nature] speak would be to represent her unlike herself" (26). In this case, Eugenius refers to a more heightened or exaggerated form
of realism that relies more upon feeling than thought or observation.

Eugenius' reliance upon both realistic (true-to-life) and exaggerated (artistically heightened) presentations of nature in the above examples provides a hint of Dryden's own confusion concerning this matter, but the issue also arises on a greater scale. Each of the four debaters in Dryden's essay, for example, recognize the value of the neoclassical precepts on some level; Dryden must therefore have believed—at least in part—that an adherence to such formal rules as the unities of time, place, and action ensures a realistic presentation of nature, seemingly represented by the term "just" in his definition of a play. On the other hand, Dryden often implies a preference, particularly through the character Neander, for a larger-than-life presentation of nature in drama, a "nature wrought up to an higher pitch" (63). Such a presentation of nature certainly conveys a sense of the more essential elements of drama that Dryden searches for in the essay. Hume, for example, points out that the representation of Dryden's "higher pitch" of nature makes art more stimulating, which in turn makes it more effective; Hume even refers to the artist's ability to heighten nature as the most essential aspect of the process of artistic creation, generating the so-called "power" of art from Dryden's theoretical point of view (27-29).
If Dryden's employment of the word "just" in his definition of a play refers to the realistic, or true-to-life, depiction of nature in art, then the term "lively" must relate to the heightening of nature—as discussed above—through the skill or genius of the artist. Not surprisingly, Dryden scholar Edward Pechter finds reason to designate the term "variety" as one type of liveliness ("richness" being another type) (50). One would assume, therefore, that Dryden's employment of the phrase "a just and lively image" implies that each of these two elements must be present in a good play; the formal regularity of the French appears "cold" without the liveliness and variety of the English, while English playwriting may be best epitomized in the work of Ben Jonson, who most closely followed the neoclassical rules (Dryden 40-41, 49).

Although Dryden generally advocates a balance between justness and liveliness, he personally seems to prefer the latter element of his definition when Neander poses the question: "what . . . is more easy than to write a regular French play, or more difficult than to write an irregular English one, like those of Fletcher or of Shakespeare?" (45). A predilection for a lively, heightened presentation of reality in drama appears throughout the essay in the arguments of Neander and—as mentioned earlier—Eugenius. If Dryden himself does not intend to indicate an overall preference for liveliness as well,
then at least he acknowledges the critical need to account for the emotions of the spectator. Such an approach was revolutionary because the neoclassical criticism of the time gave little quarter to nonrational responses in the audience. Trowbridge demonstrates the unique implications of the term "lively," in comparison to "just," by pointing out that "liveliness" lies beyond the bounds of reasoned argument; as employed by Dryden, liveliness may only be measured through perception, imagination, or feeling (48). Similarly, Pechter asserts that Neander's arguments seem to indicate that the "the vital substance of poetry"--the essence--lies outside the boundaries of the neoclassical rules, or "in values for which the rules are insufficient guides" (50). The same applies when Neander compares the plays of Jonson and Shakespeare: "I admire [Jonson], but I love Shakespeare" (49); Neander admires Jonson for his dedication to the neoclassical precepts but loves Shakespeare for an instinctive genius that could not be accounted for through neoclassicism: learning through intuition rather than study, writing by luck rather than labor, and particularly because "when he describes anything, you more than see it, you feel it too" (47).

Dryden's employment of the term "lively" in his definition of a play therefore refers to an ineffable essence of drama which, from the point of view of chaos theory, also relates to a chaotic moment of emotional and/or creative emergence, a phenomenon somewhat
comparable to Aristotle's catharsis. Like Aristotle, Dryden gropes for a concept that he does not quite understand; but unlike Aristotle, Dryden had an established tradition of criticism in neoclassicism to draw upon, even if the formal rules of the French and Italians\textsuperscript{6} did not adequately serve the authentic experience of English plays. One of the most obvious examples of neoclassicism's limitations arises when Lisideius (champion of French drama) censures Shakespeare's history plays for disobeying the neoclassical unity of time. According to Lisideius, Shakespeare's history plays, which compress decades into hours, create an effect of "which is not to imitate or paint nature, but rather to draw her in miniature . . . to look upon her through the wrong end of a perspective,"\textsuperscript{7} a device that makes a play "ridiculous" rather than "delightful" (30). Dryden's recognition of the general failure of English playwrights to know about and/or obey the neoclassical precepts, combined with his inclusion of the term "just" in his definition of a play, signifies a respect for neoclassicism. This respect, compounded by neoclassicism's emphasis upon instruction, makes up for the cognitive aspects of catharsis that his term "lively" lacks by itself.

The balance implied by the combination of the terms "just" and "lively" reflects a balance between rational and nonrational forces both in the experience and creation
of drama. From the creative perspective, rational forces are exemplified by the formal, plot-oriented precepts advocated by French neoclassicism; such an approach might be represented by the "changes of fortune" Dryden cites in his definition of a play. However, nonrational forces are more likely to govern the depiction of "passions and humours," which the English find more essential to drama than do the French. From the experiential point of view, a similar duality may be observed in the pairing of the Horatian concepts of "delight" and "instruction" at the end of the definition; French neoclassicism dictates that drama should instruct its audience, particularly with respect to issues such as decorum and poetic justice, while the English, at least according to Dryden's four disputants, prefer to be delighted in the theatre.

The terms "just," "changes of fortune," and "instruction" that appear in Dryden's definition of a play, therefore, each refers in its own way to the neoclassical precepts—the more rational, orderly approach to drama. However, the three matching terms—"lively," "passions and humours," and "delight"—each represent the more irrational, chaotic English approach, which relies more upon intuition and genius than rules. In each of the three pairings that Dryden employs, he emphasizes both sides of what were clearly viewed as dichotomies—particularly amongst the strict neoclassicists—thus advocating a more continuous relationship between the
formal (orderly) and the intangible (chaotic) aspects of dramatic art.

A specific example of how Dryden presents a continuous view of the formal justness of the French neoclassicists and the intangible liveliness of the English arises in his discussion of stage violence in the debate between Lisideius and Neander. Lisideius defends the French habit of narrating violence, rather than representing it directly onstage, by calling to task the believability of onstage deaths and battles. Neander, on the other hand, points out that some violent scenes might be depicted onstage because the imagination may "suffer itself to be deluded," as when actors are accepted as kings in the mind of the spectator. Neander subsequently declares that if the English show too much of the action onstage, then the French show too little; he concludes that the ideal playwright should find a mean between the two extremes. Although the concept of the mean does not itself parallel the continuous, interactive relationship of order and disorder advocated by chaos theory, Dryden nevertheless calls for the playwright to engage the imagination of the audience while simultaneously keeping the most incredible actions offstage. This necessitates that the "just" and the "lively" must work together, rather than simply balance one another or, even worse, cancel one another out.
This perspective concerning the relationship of the just and the lively may be observed in each of the four characters of Dryden's essay, as they agree that a play must reflect both naturalness (justness) and elevation (liveliness), but they disagree concerning which aspect should be emphasized more in an ideal drama. Neander, for example, defends English drama by comparing the beauties of French plays to those of a statue, rather than a real individual, because the French plays lack the passions and humours that constitute the "soul of poesy" (38). Later in the essay, however, when Neander defends rhyme over blank verse, he again employs the statue analogy--but in reverse--as he states that the statue (rhyme) may be made to look better than real life (blank verse). Nevertheless, Neander's opposite applications of the statue analogy actually serve the same purpose: to emphasize the importance of a heightened or "lively" image over that of an accurate, or "just" one.

Pechter summarizes Neander's position: "the closer the imitation seems to be to the audience, the more pleasing it will be" (55). The more conservative Crites, however, holds that an imitation must be objectively close to real life to bring pleasure to an audience. Since Dryden seems to emphasize the significance of both sides of this debate, Pechter concludes that objective and psychological truths are not antagonistic in the essay but instead interact, each contributing to the effectiveness
of the other. Essentially, the dramatist may cause the imitation to appear more lifelike through the artistic heightening of the imitation—as Dryden states through his character Neander: "A play . . . to be like nature, is to be set above it" (65); nevertheless, the dramatist simultaneously employs the lifelike aspects of the imitation so as to conceal the heightening (Pechter 55-56).

Seemingly, therefore, Dryden's vision of the greatest audience pleasure emerges in a manner akin to self-organization through the interaction of the just (objective truth) and the lively (psychological truth). At the very least, Dryden presents these two versions of truth in the same continuous, interactive manner he ascribes to the relationship of the just and the lively, which has already displayed hints of a parallel with the order/disorder continuum advocated by chaos theory. This parallel will continue to develop as the interconnections within Dryden's essay continue to unfold.

Dryden, for example, also takes a continuous approach to another traditionally dichotomous relationship, that of the "general" and the "particular," in at least two clear instances in the essay. One such example arises in his discussion of comedy. According to Moore, Dryden shares Aristotle's notion that abnormality produces laughter. The laughter provoked by "humours" characters, for example, results from "deviations from common customs"
which produce that "malicious pleasure in the audience which is testified by laughter" (Dryden 51). These "deviations," of course, represent the particular in humours characters. Dryden further states through his character Neander that humours characters also produce an audience pleasure that derives from the "naturalness" of the character; such "naturalness" would represent the more general character traits according to neoclassicism. Humours characters must therefore display a "natural" sort of "extravagance" that Moore refers to as a "plausible abnormality" (32).

In the essay, Neander compares humours comedies to Greek old and new comedy, concluding that old comedy contains extravagance without naturalness, while new comedy displays naturalness without the particular of extravagance. Comedies of humours are therefore the best of the three types because they contain both the general naturalness of new comedy and the particular extravagance of old comedy (51). The significance of Dryden's preference for humours comedy, therefore, lies in his predilection for comedies that contain both the general and the particular. Furthermore, the notion of a "plausible abnormality" indicates that Dryden perceives the relationship of the general and the particular--at least in humours comedies--as continuous and interactive in much the same manner as the relationship of the general and the particular advocated by chaos theory. Dryden's
view of the general and the particular also parallels his own theoretical continuum of the "just" and the "lively" found in his definition of a play. The general, which relates to naturalness of a character, certainly represents the "just" aspect of Dryden's definition, while the extravagance of the particular pertains to the artistic heightening implied in Dryden's term "lively."

The second instance in which Dryden presents a continuous view of the general and the particular arises in his discussion of subplots. Neander, defending English drama against that of the French, admits the value of the "regularity" of French plays; of course, this reference to regularity means that the plays follow the neoclassical precepts of decorum and the unities of time, place, and action. Such regularity makes the plays more "natural," or "just." Neander, however, complains that he finds the French plays "barren" compared to the "variety" of English drama. He primarily refers to the neoclassical unity of action dictating a single plot; the "variety" of the English alludes, in this instance, to their often numerous subplots. Although Neander remarks that poorly integrated subplots impede the effectiveness of drama by disrupting the unity of action, a play contains enough unity to provide pleasure if the subplots agree with the "main design" of the play. Here, Neander refers to subplots that contribute to or directly relate to the main plot (40). Once again, an interaction of the orderly French
"just" with the chaotic English "lively" is encouraged as Dryden advocates a combination of naturalness and variety in plotting. As mentioned earlier, this balance is perhaps best epitomized in the example of Ben Jonson, whom Neander considers to be the ideal playwright, because, of the English dramatists, he most closely follows the neoclassical rules but nevertheless infuses his plays with a "copiousness and well-knitting of the intrigues" (46).

Similarly, Neander defends English tragicomedy by not only contending that tragedy and comedy can coexist and even cooperate (much like order and disorder) in the same play--"Does not the eye pass from an unpleasant object to a pleasant in a much shorter time than is required to this? and does not the unpleasantness of the first commend the beauty of the latter?" (39)--but also by displaying how the particular variety of the comic and tragic plots may contribute to, rather than detract from, the general unity of the play. According to Pechter, Neander counters Lisideius' claim that English tragicomedy is unnatural by simply enlarging the scope of the natural, presenting "variety and unity as mutually sustaining rather than mutually exclusive concepts" (51). Neander, therefore, sums up his own arguments concerning tragicomedy and multiple plots when he succinctly states: "our variety, if well ordered, will afford a greater pleasure to the audience" (40). Eugenius employs the same adapted view of nature/neoclassicism when he criticizes the Ancient Greeks
for having only a "general indigested notion of a play," lacking the "particular graces" of the moderns (18-19).\textsuperscript{11} Pechter reveals how even the very form of Dryden's essay reflects his penchant for an interactive balance between unity (the general) and variety (the particular). For example, although Dryden introduces several new ideas (such as English "liveliness") to dramatic criticism, he nevertheless takes full advantage of the old ones, thus melding the variety of old and new into an overall unity. He also brings foreign traditions to his native culture, infusing them with the already established English traditions; according to Pechter: "He successfully Gallicized English taste . . . because he could Anglicize French thought" (6). Thus Dryden deliberately wrote his essay with a loose structure because such an approach allowed him to present the various ideas--old and new, foreign and native--in a unified manner without contradiction, while still acknowledging their differences.

At this point, similarities related to Dryden's preferred relation of the general to the particular may be identified on several levels within the essay. From a perspective of chaos theory, such similarities may be described as "self-similarities," for similar patterns may be observed on various scales within the same system. These patterns provide one of the bases of unity for chaos theory's overall emphasis on holism, while at the same
time exhibiting the particular differences found, for example, in fractal geometry.

In Dryden's essay, the similar "patterns" of behavior may be observed in the relationship of the general and the particular in Dryden's specific discussions of humours characters and subplots, his overall conception of unity and variety (which is also reflected in his references to the "just" and the "lively"), as well as in the overall structure of the essay itself. This same self-similarity actually provides much of the motive for viewing the loosely-constructed essay as a unified product of critical thought; the self-similar patterns that arise on the various levels of Dryden's essay may all be shown to relate directly to Dryden's recommended guidelines for an interactive balance between a "just" adherence to realism and a "lively" artistic heightening in drama.

In fact, the very notion of self-similar patterns plays an even more directly significant role in Dryden's criticism. For example, Charles H. Hinnant illustrates how the "underplots" and "byconcernments" advocated by Neander not only add variety to a play but must by necessity create atemporal and metaphoric actions with respect to the main action if the plot is to contain any unity at all (163). From this point of view, the subplots of what Dryden considers to be a skillfully-crafted play exhibit patterns of action and thought that are self-similar to the main action. This perspective offers a
sharp contrast to Crites' arguments for "la liaison des scènes," which allows for only one overarching, temporal, causal, and--according to Hinnant--Aristotelian action in the plot of a play; Dryden, therefore, clearly brings a complexity (bearing affinities with chaos theory) to the critical issue of plotting that neoclassicism lacked.¹²

Dryden also employs the concept of patterns in his discussions of the development of drama. According to Hume, Dryden believes that the literature of each country or age develops according to similar patterns, from crude beginnings to a final refined form (75). Crites, for example, uses a biological metaphor when describing the evolution of Greek drama: "Dramatic poesy had time enough, reckoning from Thespis (who first invented it) to Aristophanes, to be born, to grow up, and to flourish in maturity" (11). Although one must not assume that Dryden views biological development as the complex, chaotic process dictated by chaos theory—Hume, in fact, asserts that Dryden perceives the progression of literary development as a linear process—at least Dryden recognizes the existence of similar qualitative patterns in the emergence of the literary forms of vastly different cultures.¹³

From a perspective informed by chaos theory, however, the most engaging theoretical, as well as aesthetic, example of a reference to patterns in Dryden's essay occurs when Neander challenges Lisideius' assertion that a
play should contain only one significant character. According to Neander, multiple characters may add variety to the plot, not only through the individual "quality" of each character, but through each character's significant actions as well. Neander then describes the potential effects (upon a spectator) of a plot enhanced by the variety of multiple significant characters:

> If then the parts are managed so regularly that the beauty of the whole be kept entire, and that the variety become not a perplexed and confused mass of accidents, you will find it infinitely pleasing to be led in a labyrinth of design, where you see some of your way before you, yet discern not the end till you arrive at it. (42)

In this statement, Neander seems to invoke chaos theory directly as he advocates an interdependent balance between the parts and the whole of the play's plot. He also calls for a balance between order and disorder, for the manner in which the parts are ordered (managed) should yield variety, but not complete disorder (a perplexed and confused mass of accidents). This same balance between order and disorder also requires a sort of indeterminate determinism, as the parts are "managed" deterministically by the playwright so that the spectator does not perceive the incidents of action as "accidents," yet the pleasure of the play derives from the inability of the spectator to predict the end before it occurs.

Nevertheless, perhaps the most aesthetically pleasing parallel with chaos theory occurs when Dryden refers to the plot of a well-crafted play as a "labyrinth of
design." Here, Dryden not only alludes indirectly to the "patterns" within the construction of his ideal play but also calls to mind the labyrinth-like qualitative patterns/designs of chaos theory, such as fractals and strange attractors. From chaos theory's point of view, the significance of the visual patterns of fractals and strange attractors lies in their repetition of an overall pattern on several levels, with particular differences on each individual level; the unpredictable paths of the strange attractor never repeat exactly, yet still conform to an overall deterministic pattern. In fact, the pattern of design for the sorts of plots Dryden favors even seems to function with the indeterminate determinism of a strange attractor, generally pulling in or "attracting" those plays with the correct ingredients (justness and liveliness, variety and unity, passions and humours, delight and instruction), without predicting the particular details of the final product.

Not surprisingly, chaos theory's notion of an indeterminate determinism helps to illuminate another example of Dryden's predilection for an interactive balance between the orderly "just" and the chaotic "lively" in the essay. For example, Lisideiues, who values "just" imitations, believes that the events of a drama will appear more "natural" if cause and effect relationships are made so clear that "that which appears chance in the play, will seem so reasonable to you that
you will there find it almost necessary" (37). Eugenius, proponent of the "lively," however, values qualities such as surprise, or "novelty," which he finds lacking in the plays of the Ancient Romans, stating that their plots are "built after the Italian mode of houses: you see through them all at once" (19-20).

Similarly, Pechter points out that while Crites demands an adherence in drama to probability and necessity according to his own view of nature, Eugenius merely values what the audience will perceive as probable or necessary (44-45). This difference in perspective illustrates the distinction between the two sharply contrasting world views depicted in the essay: one based on a strictly predictable determinism and the other predictable only so far as audience taste may be predicted--as Neander states, the opinions of the masses "arc sometimes in the right, sometimes in the wrong; their judgment is a mere lottery" (63). Although Dryden often seems to favor the latter of these views, he never gives up on determinism, for even Eugenius frequently accepts Crites' basic theoretical principles. In fact, Dryden seems to be most interested in the overlap between Crites' and Eugenius' perspectives, where objectively "just" imitations are the most subjectively pleasing; of course, from an English point of view, the most pleasing imitations would also appear to be the most "lively."
Apparently, Dryden intended to temper the rather severe neoclassical critical approach that was dominant on the continent--and quite prevalent in his own country--with a few ingredients that simply "worked" on the English stage (liveliness, variety, passions, humours). In fact, Pechter at one point describes the conflict in the essay in terms of the "mimetic" versus the "pragmatic," ultimately deciding that the two are "too interdependent for . . . rigorous separation" (45). Of course, this perspective merely provides another means of viewing the relationship of the just and the lively as continuous and interactive in the essay. Neander, the champion of English drama, even quotes the neoclassical French playwright/critic Corneille to support his own arguments for moderating the mimetic (just) critical approach of the neoclassicists with the more pragmatic (lively) style of the English. Neander points out that in Corneille's "Discourse of the Three Unities," the playwright complains that if critics had to write plays, they would be more lenient concerning the neoclassical unities, for they would learn how playwrights "are bound up and constrained by" the unities "and how many beauties of the stage they banished from it" (qtd. in Dryden 44). Neander, therefore, suggests that even a respected French neoclassical playwright would prefer the latitude to include more liveliness and variety in his work than would be permitted under strict neoclassicism, for as Neander
later proclaims: "How many beautiful accidents might naturally happen in two or three days, which cannot arrive with any probability in the compass of twenty-four hours?" (44).

Neander, of course, would assert that the "beautiful accidents" he mentions in the above quote contribute substantially to the pleasure-giving aspects of drama, just as Eugenius values unpredictability, novelty, and surprise in plotting. In fact, while discussing the four parts of the dramatic plot, Eugenius suddenly waxes poetic, metaphorically describing the unpredictability inherent in the third part, which he refers to as:

the catastasis, or counterturn, which destroys that expectation, imroils the action in new difficulties, and leaves you far distant from that hope in which it found you; as you may have observed in a violent stream resisted by a narrow passage: it runs round to an eddy, and carries back the waters with more swiftness than it brought them on. (18)

Here, Eugenius not only defines the catastasis as an inherently unpredictable moment in the plot of a play but compares this moment to phenomena—turbulent water and eddies—often employed by proponents of chaos theory as examples of the new scientific paradigm at work in nature: a violent stream displays unpredictable, chaotic behavior that gives rise to eddies—pockets of order which emerge out of the chaos of the turbulence. Similarly, the order of the fourth part of the plot of a play, the catastrophe or dénouement, arises from the chaotic unpredictability of...
the catastasis, thus ending the play "with that resemblance of truth and nature that the audience are satisfied with the conduct of it" (Dryden 18). Eugenius, therefore, prefers to view the ordering of the events of the plot of a play as a process of self-organization, both from the perspectives of the audience, as well as the characters in the play.

Hinnant also discovers an emergent quality in Dryden's view of plot, beginning with the phrase "changes of fortune" in Dryden's definition of a play. According to Hinnant, the term "changes of fortune" exists as a singularity--the only term in the definition that is not part of a set of binary opposites (i.e., just and lively, passions and humours, delight and instruction). Hinnant asserts that this singularity makes Dryden's definition of a play dynamic rather than static because the term "changes of fortune" refers to specific events within the action of the play, instead of the play as a whole. Hinnant further states that these specific events produce "disruptions" that bring about changes from one state of affairs to another. On the level of the play as a whole, these disruptions are part of a larger pattern, the "labyrinth of design" discussed earlier, which offers the spectator both delight and instruction. But from the perspective of the characters in the play, the disruptions are unstable and unpredictable (Hinnant 162).
Hinnant's emphasis on "changes of fortune" in Dryden's definition of a play resonates with chaos theory on several levels, almost as though Hinnant were writing specifically about chaos theory. For example, the "disruptions" that bring about the changes in plot resemble miniature versions of Eugenius' *catastasis*, which brings about the plot's overall resolution. These disruptions, therefore, may be described as small pockets of chaos from which arises the order of the new state of affairs following a change of fortune. But although they represent particular moments in the plot, these disruptions are also part of the overall "labyrinth of design"; thus, both the general and the particular reside in Dryden's "changes of fortune." The "labyrinth of design" may also be viewed as an overall formal order that determines the structure of the play; yet the individual disruptions are chaotic and uncertain from the point of view of the play's characters as well as the audience. Hinnant's perception of Dryden's theory, therefore, displays both the formal and the spontaneous, the determinate and the indeterminate, the orderly and the chaotic.

Apparently, Dryden had these same issues in mind during the composition of "An Essay of Dramatic Poesy" when he attempted to answer the question: "How should the English be writing plays?" For Dryden, such issues were couched in debates between the relative merits of the

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Ancient, Modern, French, and English dramatic writing styles. These debates featured concepts such as the "mimetic" and the "pragmatic" and the "general" and the "particular," and employed such terms such as "justness" and "liveliness," and "instruction" and "delight." In fact, Dryden seemingly discovered his most suitable variations on his own personal vision of the very "essence" of drama in the liminal, chaotic moments that lie in the complex, interactive borders between each of the binary pairs listed above.

The debates, therefore, serve as a proving ground for each of the arguments presented in the essay. Even though the four debaters agree that Eugenius and Neander present the best discussions for their respective subjects, Dryden does not intend to send the message that contemporary English drama has more merit than that of the Ancients or the French. Instead, Dryden merely seeks to augment the contemporary neoclassical theory (supposedly derived by/from the Ancients and employed by the French) with what he perceives as "working" on the English stage: liveliness, variety, passions, humours, delight.

In the process, he employs several fundamental ideas and metaphoric images that display affinities with chaos theory. The clearest of these ideas/images may obviously be found in his encouragement of a continuous, interactive relationship between the orderly "just" approach of the neoclassicists and the chaotic "lively" aesthetic.
prevalent in English drama. But as a result of his construction of this integrated theory, he calls for an indeterminate determinism that, through the interaction of the "just" and the "lively," produces a process akin to self-organization from which emerges his version of a perfect theatrical moment, found in the self-similar patterns he refers to in the essay as the "labyrinth of design." The critical significance of Dryden's essay, therefore, lies not so much in the individual arguments of the four debaters as in Dryden's melding of their ideas as they strive to make concessions and find common ground.

From a perspective informed by chaos theory, the significance of the essay may be observed in Dryden's critical recognition of the effectiveness of English playwriting in the face of neoclassicism. His flexibility in this respect allowed him to perceive "chaotic moments" that could not be accounted for under the stricter neoclassical precepts. Finally, even though Dryden himself struggled to describe such moments in words, he at least recognized alternative perspectives to the neoclassical views of nature and art; even more importantly, he strove to explain these alternative perspectives in his theory and criticism.

End Notes

1 Dryden scholars have traditionally tended to speculate that each of the four figures in Dryden's dialogue represents an actual contemporary of Dryden's. Typically, Crites is conceived to be Sir Robert Howard, Eugenius to be Sir Charles Sackville (Lord Buckhurst to
whom the work is dedicated), Lisideius to be Sir Charles Sedley, and Neander to be Dryden himself (Reverand 379-380). This approach appears significant only if one assumes that Dryden's primary purpose for writing the essay was, in fact, to exalt the approaches of English playwrights over those of the Ancients and French.

Evidence that Dryden did, in fact, intend for his essay to espouse the virtues of English writers over the French lies in his dedicatory preface, "To the Reader," in which he states: "The drift of the ensuing discourse was chiefly to vindicate the honor of our English writers from the censure of those who unjustly prefer the French before them" (4). Frank Harper Moore, however, asserts that Dryden was merely being patriotic in his preface and agrees with Hume that Dryden's real purpose in writing the essay was to explain to the English audience what makes a good English play; according to Moore, the dialogue form is a mere device "used to add interest to the discussion and to avoid the imputation of vanity, presumption, and dogmatism" (38-40). Furthermore, Dryden's own dedicatory letter to his friend Lord Buckhurst (typically not published with the essay) displays no preference for the English as Dryden states his desire for Buckhurst to make up his own mind concerning which of the essay's arguments are the strongest (Tyson 72-73).

Dryden later acknowledged that he claimed Lisideius' definition of a play as his own (Hume 26).

This expression means that the definition makes no distinction between drama and other forms of literature.

This latter perspective functions best within the framework of the neoclassical interpretations of Aristotle, as the neoclassicists interpolated (by inferring ideas that are not, in fact, present [such as the unities of time and place]) and extrapolated (by creating new concepts and terms, or by drawing them from other classical works [as with the case of Horace's "decorum"] Aristotelian criticism to derive concepts such as the three unities, verisimilitude, and decorum, thus constructing a precise view of how nature should be represented realistically in drama. Essentially, the neoclassicists combined and augmented the writings of the various classical critics and then claimed that all works of classical criticism conformed to this one overarching (and quite restrictive) system. Aristotle, of course, fails to present a coherent view of nature, or how nature should be depicted in drama, in the Poetics. Nevertheless, the neoclassicists took their own interpretations of Aristotle as fact, and Dryden's perspective of a so-called "classical" view of nature appears to derive more from neoclassicism than Aristotle.

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Dryden must have been familiar with the critical works of the Italians prior to the French neoclassicists, for the writings of critics such as Castelvetro and other Renaissance Italians had been introduced into England long before the ideas of the French neoclassicists (Hume 178). Unfortunately, however, Dryden does not refer to the Italians in the essay.

Dryden's employment of the word "perspective" means "telescope" in this instance (Kirsch 30).

Hume employs the more aesthetically oriented terms "literal" (also "representational") and "ideal" (also "imaginative") rather than referring to objective and psychological truths. Hume assumes that, for Dryden, the essence of drama lies not in literal representation, but in ideal passions and feelings—human nature (the ideal) rather than nature itself (the literal). Hume therefore identifies what he believes to be an inherent contradiction in Dryden's criticism due to the difficulty of representing the ideal visually; Dryden must recognize by necessity, therefore, the more literal, representational aspects of drama, particularly when he states that tragedy surpasses epic because of its ability to visually represent actions (Hume 205-206). Hume consequently depicts Dryden as confused concerning the difference between the literal and the ideal, as well as the exact process by which the audience is affected by drama (i.e., pleasure). Hume also illustrates how the "literal" and the "ideal" may parallel emphases upon "plot" and "character" in drama. The passions and humours of Dryden's definition of a play relate to characterization, while literal imitations—especially of an action—pertain more to plot-centered views of drama. Although Hume successfully shifts the interpretive emphasis of Dryden's essay from "Ancients versus Moderns" and "French versus English" to "literal versus ideal," he nevertheless continues the tradition of assuming that Dryden sides with Neander and Eugenius in the essay, thus representing the literal and ideal as dichotomous and antagonistic, rather than continuous and interactive.

"Humours" characters are identified by personality eccentricities distinctly related to a physiological imbalance—according to contemporary medicine—in their four bodily humours: blood, phlegm, choler, and black bile. Ben Jonson was/is particularly noted for his "humours comedies."

Neander refers to Shakespeare's character, Falstaff, as a "miscellany of humours" because he may be described as "old, fat, merry, cowardly, drunken, amorous, vain, and lying," but "he is singular in his wit." But
Neander seems to imply that Falstaff is not actually a "humours character," the reasons for which are unclear in the essay; Neander defines "humour" as "the ridiculous extravagance of conversation, wherein one man differs from all others" (50). Moore states that Dryden disqualifies Falstaff as a humours character—either because of his multiple humours, or because Dryden does not consider wit to be a humour; Moore suggests the former reason. At any rate, Moore reports that Dryden changed his mind later in his career, ultimately accepting Falstaff as a humours character (34).

1 Eugenius is referring to the modern particulars of the neoclassical precepts as well, as he points out several examples (most notably, the division of the action into five acts) of how the Greeks did not follow the severe rules attributed to them (somewhat incorrectly) by the neoclassicists.

This difference between the neoclassical precept requiring a single dramatic action and Dryden's acceptance of subplots exemplifies Hinnant's structuralist analysis of Dryden's definition of a play in "An Essay of Dramatic Poesy." Hinnant focuses on Dryden's shift from the syntagmatic perspective of the neoclassicists to the more paradigmatic perspective evident in the essay. For example, neoclassicism's insistence upon a "just" (realistic) imitation requires the unities of time, place, and action, which in turn requires a plot consisting of a metonymically-linked, syntagmatic chain of events. Following this line of logic, Dryden's admission of subplots into his critical system has already been described as metaphoric (because the lesser actions of the subplots mirror, and thus comment upon, the incidents of the main plot), and therefore paradigmatic as well. Hinnant, however, finds that the shift from a syntagmatic to a paradigmatic point of view runs much deeper in Dryden's dramatic criticism than mere plotting concerns might indicate. Dryden also brought a paradigmatic perspective to the very essence of theatrical experience—mimesis and audience pleasure. For example, Hinnant states that a syntagmatic approach to performance requires a greater commitment to belief in the dramatic illusion, while a paradigmatic perspective allows more recognition of the theatricality of the events happening on the stage. The argument concerning onstage violence between Lisideius and Neander illustrates the difference between these two points of view. Lisideius, of course, contends that the spectator must find fault with unrealistic representations, stating that "dying especially is a thing which none but a Roman gladiator could naturally perform on the stage, when he did not imitate or represent, but naturally do it" (33). Neander, however, asserts that spectators recognize onstage actions as representations...
and therefore don't have to believe the actions are real. The benefit of Neander's perspective lies in the spectator's freedom to believe that the actors are only actors, but nevertheless suspend disbelief enough to enjoy the performance. Hinnant, therefore, aligns the syntagmatic, neoclassical approach to performance with "presence" and the paradigmatic, Dryden-altered perspective with "absence," referring to the presence or absence of "real" events on the stage; under Dryden's theory, the real event must be absent for the stage event to be regarded as a representation. Hinnant also describes the relationship between the syntagmatic and the paradigmatic as the difference between a bare imitation and a heightened image (163-165).

13Crites provides a vague description of this process: "every age has a kind of universal genius, which inclines those that live in it to some particular studies: the work then being pushed on by many hands, must of necessity go forward" (11). This image of many individuals coming together to produce a literature certainly evokes comparisons to chaos theory's process of self-organization, but according to Hume, Dryden had little concept of the individual viewpoint, which would instead imply that he viewed culture as one great harmonious unit, rather than a complex mass of independent monads (90).

14Crites and Lisideius also cite Corneille to support their arguments for neoclassicism, but as R. V. LeClercq asserts, they actually take Corneille's view of the three unities further than he intended. Eugenius and Neander recognize Corneille as a playwright as well as a critic and more clearly perceive his scepticism, therefore, concerning an absolute adherence to the unities (LeClercq 322).

15Admittedly, Hinnant's organization of Dryden's definition of a play into binaries differs from that employed near the beginning of this chapter, where "changes of fortune" was paired with "passions and humours," rather than being considered a singularity.
Chapter Four: Coleridge's Theory of the Imagination in His Aesthetic Theory and Criticism

In chapter thirteen of his Biographia Literaria, Samuel Taylor Coleridge sets forth his much-interpreted definition of the imagination and its distinction from the related creative faculty of fancy. Much-interpreted because of its ambiguity, the definition merely provides "the main result" of Coleridge's thought concerning imagination and fancy, rather than fully expounding upon the philosophical arguments which informed it. Referring to the Biographia as "unread and largely unreadable" (125), Coleridge scholar J. A. Appleyard recommends that Coleridge's fragmented spectrum of literary theory and criticism be taken as a whole in order to fully comprehend the significance of Coleridge's thought. Observing Appleyard's advice, this chapter will not focus upon any one of Coleridge's works of theory/criticism, but will instead employ each and all that prove necessary to gaining an understanding of Coleridge's theory of the imagination, his views concerning poetry, drama, and theatre in general, and how these theories and views may be regarded from a perspective informed by chaos theory.

This chapter will therefore begin with a discussion of Coleridge's theory of the imagination, choosing the definition in the Biographia as the most logical starting point. A framework of chaos theory will then be employed to examine the most significant elements of Coleridge's definition of the imagination: the reconciliation of...
opposites and organic unity. The following topics will then be explored in the light of the philosophical implications of chaos theory: 1) Coleridge's perception of the relationship of part to whole in art and nature, 2) the relationship of the spiritual to art and nature, 3) Coleridge's notion of a chaotic moment, 4) unpredictability and spontaneity, 5) self-similar patterns, and 6) the role of the audience in Coleridge's theoretical system. This chapter will conclude with a discussion of the application of Coleridge's theories as evidenced in his Shakespearean criticism and the significance of this criticism from a perspective of chaos theory.

Coleridge clearly considered the imagination to be the most significant mental faculty involved in the process of the creation of art; a discussion of Coleridge's theories will therefore begin with an examination of this concept. The vagueness of the definition of the imagination that Coleridge provides in the *Biographia Literaria* suggests a level of importance approaching the order of the spiritual if not the godly in the singular significance of the imagination as the agency responsible for the creative process:

> The IMAGINATION then I consider either as primary, or secondary. The primary IMAGINATION I hold to be the living Power and prime Agent of all human Perception, and as a repetition in the finite mind of the eternal act of creation in the infinite I AM. The secondary I consider as an echo of the former, co-existing with the
conscious will, yet still as identical with the primary in the kind of its agency, and differing only in degree, and in the mode of its operation. It dissolves, diffuses, dissipates, in order to re-create; or where this process is rendered impossible, yet still at all events it struggles to idealize and to unify. It is essentially vital, even as all objects (as objects) are essentially fixed and dead. (I: 304)

Coleridge's primary imagination has been interpreted by many as the faculty of mind capable of accessing an ideal, transcendental level at least somewhat equivalent to the romantic notion of the supersensuous. Coleridge believed that this level could be tapped by humans through the unconscious mind, sometimes by means of the "Communicative Intelligence" of God, which--according to Coleridge--allows humans to occasionally glimpse God's absolute knowledge. In contrast, the secondary imagination requires conscious as well as unconscious activity within the mind. Human creativity requires the will of the artist to inaugurate the creative process, and for Coleridge, the secondary imagination accounts for conscious human initiative. The secondary imagination, therefore, serves as the most common means by which the artist taps into the more mystical primary imagination; when Coleridge generically refers only to the "imagination" in his theoretical and critical writings, he is typically referring to the secondary imagination.

Coleridge never clearly explains the relationship between the primary imagination, the secondary imagination, and the Communicative Intelligence. However,
he seems to imply that the secondary imagination performs the conscious functions necessary to make sense of the unconscious input provided by the primary imagination. If this seems unclear, then the link with the Communicative Intelligence appears even more nebulous. Of the three, only the Communicative Intelligence appears to exist outside the human mind. The Communicative Intelligence allows the individual mind some sort of access to the realm of the spiritual, a pure essence of "nature," God's plan, or even God's own imagination. Seemingly, this access occurs through the primary imagination; the secondary imagination's job must be to make meaning out of the raw material provided through/by the primary imagination.

By dividing the imagination into two distinct components, the primary and the secondary, Coleridge effectively accommodates the romantic movement's philosophical model of the relationship of the spiritual to the material. Whether expressed in the terms of body and soul, natural and ideal, or sensuous and supersensuous, the metaphysical foundations of romanticism consistently serve Coleridge well—primarily because many of Coleridge's own philosophical influences derive from German idealist philosophers such as Kant, Schelling, and Schlegel. For example, Coleridge's secondary imagination and its ability to modify ideas, images, and sensory impressions relates to Kant's notion of an active mind.
that creates experience by synthesizing external (objective) and internal (subjective) impressions. Similar concepts, of course, may be found in Schelling, with a more direct application to the relationship of art, mind, and "nature." According to Schelling, art emerges as the product of the artist's ability to recreate the actual supersensuous "essence" of nature, rather than the mere representation of the artist's own subjective view of nature. Furthermore, Coleridge's employment of an organic metaphor for art has often been traced to Schlegel, who states that the work of art begins as a "seed" in the artist's imagination and should be allowed to flourish "naturally," thus reflecting the human dualism of the animalistic (material/body) and the transcendental (spiritual/soul).³

Two of the most significant functions of the imagination under Coleridge's theory may be traced to the influence of German idealism: the reconciliation of opposites and the attainment of organic unity. Each of these fundamentals of Coleridge's aesthetic theory are evident in the final sentence of chapter fourteen of the Biographia Literaria: "Finally, GOOD SENSE (Understanding) is the BODY of poetic genius, FANCY its DRAPERY, MOTION its LIFE, and IMAGINATION the SOUL that is every where, and in each; and forms all into one graceful and intelligent whole" (II: 18). In this statement, Coleridge appears to be advocating a reconciliation of the
material and spiritual, as well as the intellectual and intuitive aspects of the creation of poetry. Clearly, a reconciliation of opposites contributes also to the achievement of organic unity--"one graceful and intelligent whole" in this case. Each of these elements of the imagination resound throughout Coleridge's theory and criticism; likewise, they each display affinities with the fundamental philosophical concerns inherent in chaos theory. Such significance demands that each receive appropriate attention respectively, beginning with the reconciliation of opposites.

Chaos theory, of course, promotes the notion of a reconciliation of the traditionally dichotomous opposites of order and disorder into a more interactive and harmonious continuum. Chaos may be discovered lurking within seemingly ordered processes, and new levels of order arise spontaneously from/within phenomena that previously appeared to display only chaotic behavior. Coleridge relates his aesthetic preference for poetry that contains a balance of order and disorder when he states: "In poetry it is the blending of passion with order that constitutes perfection" (Shakespearean II: 107). For the romantics in general (Coleridge included), the dichotomy of the spiritual (order) and material (chaos) that formerly existed under neoclassical thought was similarly broken down into a more continuous and interactive relationship. This breakdown was accomplished through the
medium of art, which allows humans limited glimpses of the ideal realm of the spirit. Artists, therefore, were granted roles as privileged intermediaries between the real (chaos) and the ideal (order); perceived as possessing superior powers of creativity, artists were likewise presumed to hold a heightened ability to view elements of the spiritual hidden within the material. From a perspective of chaos theory, one might assert that the romantic artist exhibits a skill for intuiting the order that underlies the chaos of the material world, or even the universe.

For Coleridge, the artist's key to unlocking the supersensuous aspects of the material world lies in the imagination. As mentioned earlier, the secondary imagination serves as the conduit of access to the primary imagination, the latter of which Coleridge more directly links to the realm of the spiritual. Furthermore, Coleridge's intense interest in the conscious and unconscious aspects of the human mind further inspires his description of the means through which the imagination contributes to the creative process. For Coleridge, the creative essence of the imagination resides in the unconscious mind, with the more spiritual primary imagination operating entirely in this domain. Coleridge, in fact, directly links the spiritual and the unconscious when he describes the "spiritual in man" as "of that which lies on the other side of our natural consciousness"
(Biographia I: 243). The secondary imagination also employs the unconscious portions of the mind, but does so while "co-existing with the conscious will," as Coleridge asserts in the definition of the imagination that he provides in the Biographia Literaria. Coleridge clearly states that these two aspects of the mind must function interactively in his essay, "On Poesy or Art":

In every work of art there is a reconcilement of the external with the internal; the conscious is so impressed on the unconscious as to appear in it . . . . He who combines the two is the man of genius; and for that reason he must partake of both. Hence there is in genius itself an unconscious activity; nay, that is the genius in the man of genius. (Miscellanies 47)

Although Coleridge does not directly speak of the imagination in this statement, his association of the unconscious and the conscious with the imagination in the Biographia Literaria demands a similar "reconcilement" of the conscious and the unconscious, as well as the spiritual and material, in his theory of both the imagination and genius.5

Coleridge also associates the traditional dichotomy of feeling6 and thought with his description of the roles of the unconscious and conscious in the creative process. In fact, Coleridge often seems to advocate the use of the uncontrolled aspects of the human mind in a fit of passion for the purposes of releasing the creative treasures of the unconscious. In such instances, the conscious mind provides the "order" necessary to keep the passion in

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check; Coleridge often describes this order-keeping facet of his theory as a "wakefulness of mind" (qtd. in Jackson 106). J. R. de J. Jackson points out that Coleridge believes the activities of the mind to be only semi-conscious while under the influence of passion, but at the same time consciously fostered by the artist. Jackson describes this as an "unusual state of mind" that is never adequately explained by Coleridge, but which appears to maintain a significant association with the Communicative Intelligence, thus providing a spiritual aspect as well. Although unable to articulate exactly how this process works, Jackson clearly aligns the effects of passion upon the mind with the unconscious and the spiritual in the creation of poetry (106-107). It would seem, therefore, that Coleridge seeks the reconciliation of feeling and thought in his theory of creativity and the imagination along with the spiritual and the material and the unconscious and the conscious.

Coleridge's distinction between imagination and fancy is often viewed by interpreters as another attempt to reconcile opposites. The definition of fancy, immediately following that of the imagination, in the *Biographia Literaria* reads as follows:

FANCY, on the contrary, has no other counters to play with, but fixities and definites. The Fancy is indeed no other than a mode of Memory emancipated from the order of time and space; and blended with, and modified by that empirical phenomenon of the will, which we express by the word CHOICE. But equally with the ordinary

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memory it must receive all its materials ready
made from the law of association. (I: 305)

Fancy, therefore, applies to the "fixities and definites"
of sense perception. Coleridge's employment of the phrase
"law of association" refers to David Hartley's theory of
the operation of human mind as a mechanical linking of
senses and ideas through the process of association.
Although Hartley's medical, psychological, and
metaphysical theories significantly influenced the early
stages of the development of Coleridge's aesthetic theory,
Coleridge radically changed course when his thought fell
under the sway of the German metaphysicians. But even
though Hartley's more linearly logical view of the
workings of the human mind found no place in Coleridge's
theory of the imagination, Coleridge retained many of the
fundamental concepts of Hartley's theory, applying them in
modified, more romantically-friendly forms to the lesser
creative faculties of his overall theory. Fancy, of
course, was one such lesser faculty. A hierarchical
schematization of Coleridge's perspective of the links
between the mental faculties discussed in this study
should appear as follows (in decreasing order): primary
imagination--secondary imagination--fancy.

Coleridge modified Hartley's notion of association
when he "emancipated" it "from the order of time and
space"; essentially, Coleridge added the governing power
of the will to a process Hartley had described as
mechanical, even automatic in its contemporaneity.
Jackson points out that fancy is linked to the imagination through this same conscious power of the will, the very "wakefulness of mind" that Coleridge proposes as the limiting factor of passion. According to Jackson, one of the chief distinctions between fancy and imagination concerns the two different kinds of understanding that result from the employment of this wakefulness of mind (120).

Employing Jackson's description of these two discrete types of understanding, the understanding which contributes to fancy may be viewed as that which arises from the sensual perception of nature, the world external to the intellect. Likewise, the imagination benefits from an understanding which arises from the perception of the interior of the mind--the ideas and images that are crafted in the "mind's eye," so to speak; as mentioned earlier, these ideas and images might convey glimpses of the transcendent through the primary imagination's unconscious link with the spiritual. The creation of poetry requires the reconciliation of these opposite varieties of understanding, just as romantic theory in general calls for a reconciliation of the sensuous and the supersensuous. Of course, this directly implies a reconciliation of the fancy and imagination as well. Jackson asserts, however, that in Coleridge's ideal model of poetic creation, the imagination must, to some extent, predominate over the fancy (121).
Coleridge's specified reconciliation of associative fancy and creative imagination, therefore, mirrors the interactive, continuous relationship of order and disorder posited by chaos theory in much the same manner as the similar reconciliations of the material and the spiritual, the conscious and the unconscious, and thought and passion. By turning attention to the respective philosophical influences that informed Coleridge's derivation of and distinction between the definitions of the creative faculties of fancy and the imagination, one observes that Hartley's theory of association is essentially linear and mechanical, while the philosophies of the German metaphysicians, such as Kant, Schelling, and Schlegel, present more nonlinear and organic views of the operation of the human mind. The creative or aesthetic distinction between fancy and imagination, therefore, may be discerned as the difference between a mechanical form, which is impressed upon the work of art from the outside, and an organic form, which develops from within the work of art itself. Appleyard metaphorically models this distinction through the symbols of the machine and the living organism (131-132). This model effectively serves the purposes of comparing the relationship of fancy and the imagination to that of order and disorder under chaos theory, because scientific advocates of chaos theory often use this very model to illustrate the distinction between the traditional Newtonian paradigm for the operation of
the universe and the relatively new paradigm based on chaos theory.

The second of the two significant elements of Coleridge's definition of the imagination, organic unity, exists when the whole of the work of art displays the sense of organic form, meaning that each individual part not only develops from within the work of art, but also contributes to the overall effectiveness of the whole. The similarity of the relationship of part and whole under Coleridge's conception of organic unity to the relationship of part and whole advocated by chaos theory should appear quite obvious. Chaos theory emphasizes a nonlinear, interactive relationship of part to whole, where each part not only contributes to the effectiveness of the whole, but also interacts with and significantly influences numerous other parts, often simultaneously. Often, each individual part also reflects the totality of the whole in the same manner that each part of a living organism carries the genetic information for the complete organism. Finally, a nonlinear relationship of part to whole implies that the function/effect of the whole does not necessarily depend on the absolute existence of each and every part. An organic life-form does not necessarily die after losing a single limb, but the linear operation of a mechanical clock will stop with the removal of any individual gear. In other words, chaos theory asserts
that the whole is, in fact, greater than the mere sum of its parts.

Coleridge displays a strikingly comparable holistic view of the relationship of part and whole in his aesthetic theory and criticism; essentially, Coleridge's very definition of beauty involves a balance of part-ness and wholeness: "The sense of beauty subsists in simultaneous intuitive of the relation of parts, each to each, and of all to a whole" (Miscellanies 26). Similarly, when Coleridge distinguishes poetry from other artforms in the Biographia Literaria, he emphasizes that a poem provides "such delight from the whole, as is compatible with a distinct gratification from each component part" (II: 13). Although this particular statement seems to run counter to chaos theory because the sum of the parts of Coleridge's ideal poem would in fact be greater than the whole (rather than vice versa), the notion that each part may be, in its own way, equal to the whole also indicates a nonlinear relationship of part to whole. But even so, in other discussions Coleridge clearly stresses the importance of unity and the whole, which indicates that Coleridge's thought concerning the relative significance of part and whole oscillated over the course of his lifetime, or perhaps he simply wanted the best of both worlds: a whole that is greater than the sum of its parts with each individual part equal to the whole. At any rate, the greatest significance of
Coleridge's view of the relationship of part to whole from a perspective of chaos theory concerns Coleridge's repeated insistence upon a balance and interaction between the whole and its parts, as well as between the individual parts.

Perhaps Coleridge best sums up his conception of an ideal aesthetic relation of part to whole in the phrase, "Multėity in Unity," which he employs in his essay, "On the Principles of Sound Criticism Concerning the Fine Arts." To illustrate "Multėity in Unity," Coleridge provides the example of a discarded wagon wheel: even though it is "disfigured with tar and dirt," one might nevertheless observe that "many different images are distinctly comprehended at one glance, as forming one whole, and each part in some harmonious relation to each and to all" (Miscellanies 19-20). In another example from the same essay, one might imagine that Coleridge took his inspiration directly from chaos theory: "The frost on a window-pane has by accident crystallized into a striking resemblance of a tree or a seaweed. With what pleasure we trace the parts, and their relations to each other, and to the whole!" (19-20). Nature inspired Coleridge to find similar examples of "Multėity in Unity" in the colors and shapes of a view of the sea and the sounds of the wind in a forest of pine trees (Anima 100; Miscellanies 190).10

Coleridge's appreciation of nature, in addition to being a vogue in his day, certainly derives from his
preference for the organic forms and organic unity that he observed in the nature around him, as the above quotes and references testify. He therefore believed that the artistic ability to produce organic unity could only come from nature as well; according to Coleridge, some skills are born in the artist, rather than learned, such as,

that gift of true Imagination, that capability of reducing a multitude into unity of effect, or by strong passion to modify series of thoughts into one predominant thought or feeling—those were faculties which might be cultivated and improved, but could not be acquired. Only such a man as possessed them deserved the title of poeta who nascitur non fit—he was that child of Nature, and not the creature of his own efforts. (Shakespearean II: 63)

Coleridge, of course, refers to the secondary imagination when he speaks of "that true gift of Imagination" which (as explained above) applies to the artist's ability to access the primary imagination, or unconscious, and therefore catch glimpses of the natural/spiritual truths that the Communicative Intelligence (God) allows the artist to see. Coleridge and most other romantics in general believed that the material aspects of nature viewed by humans on a day-to-day basis was far too multitudinous for the average human mind to perceive the spiritual unity lying beneath the surface; after all, only God could fully comprehend the nature that He had created. The "child of Nature" that Coleridge refers to in the above quote, therefore, enjoys an extraordinarily developed secondary imagination.
In much the same manner that it allows individuals access to the spiritual realm under Coleridge's theory of the imagination, art also acts as "the mediatress between, and reconciler of, nature and man" (Miscellanies 42). But one must not make the mistake of assuming that Coleridge completely equates nature with the spiritual; he perceives the spiritual in nature, rather than regarding all of nature as existing in the realm of the spiritual. In other words, the true artist does not merely copy the sensuous, external aspects of nature, but instead communicates the supersensuous essence of nature. The imagination, of course, is employed for the purposes of gaining glimpses of this essence.11

When Coleridge speaks of relating an "essence" of nature through the imagination's ability to access the spiritual realm, he is attempting to account for a "chaotic moment" that serves as the spark of artistic creation, the same moment that Aristotle links to catharsis and Dryden connects with liveliness. Like both Aristotle and Dryden, Coleridge struggles to adequately explain the particulars of this moment because he does not fully understand it himself. Appleyard suggests that the wide scope of Coleridge's artistic/scholarly career--encompassing the roles of poet, critic, philosopher, theologian, and even political economist--encouraged Coleridge to try to account for too many factors in his theories of literary creativity to feel entirely confident.

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about his explanations (123-124). Again like Aristotle and Dryden, Coleridge was simply attempting to create a coherent system of theory/criticism that matched his own personal experience.

In Coleridge's experience, the chaotic moment that ignites the imagination often originates in, or at least derives from, the unconscious. In fact, Coleridge claims that he benefitted from just such a personal experience during the composition of his poem "Kubla Khan." In the preface to this poem, Coleridge states:

The Author continued for about three hours in a profound sleep, at least of the external senses, during which time he has the most vivid confidence, that he could not have composed less than from two to three hundred lines; if that indeed can be called composition in which all the images rose up before him as things, with a parallel production of the correspondent expressions, without any sensation or consciousness of effort. (qtd. in Baker 157-158)

Coleridge successfully locates the source of inspiration for his poem in the unconscious, but this very fact probably raises more questions than it answers concerning the process of creation. What role, for example, did the more logical, intellectual portion of his mind play as he attempted to construct order out of the chaotic flood of images? Clearly, Coleridge's repeated emphases upon the importance of the limiting contributions of the more orderly conscious creative faculties imply that the poem did not write itself, but his mystical treatment of the
process indicates that he does not himself understand the
creative act in all of its dimensions.

In addition to the unconscious, Coleridge finds
evidence of the creative/chaotic moment in extreme
passion, asserting that "in many instances the
predominance of some mighty Passion takes the place of the
guiding Thought, and the result presents the method of
Nature, rather than the habit of the Individual" (Friend
I: 456). Again, Coleridge mystically implies that the
marrow of the creative process derives from someplace
other than the artist--this time from nature, rather than
the unconscious. But one must also remember that the
combination of passion and order, the unconscious and the
conscious provides the best aesthetic results according to
Coleridge's theory. The significance of the above quotes
concerning the unconscious and passion lies in Coleridge's
reliance upon these "chaotic moments" as instigators
and/or guiding forces for creativity, rather than as
actuators of the total artistic product.

From a perspective of chaos theory, the chaotic
moments that Coleridge attributes to the unconscious or to
the influence of passion appear to correspond to the same
sorts of moments that occur when a system operates on the
boundaries of order and disorder. In such instances,
unstable, aperiodic behavior typically causes an extreme
sensitivity to initial conditions, which in turn often
leads to unpredictability concerning the future state of

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the system. In the case of a self-organizing system, entirely new levels of order may emerge from the initial chaotic moment—order that was hidden beneath the chaos all along.

Under Coleridge's theory of creativity, the initial chaotic moments that trigger the imagination also set into motion a process of ordering the images and ideas that make up the final work of art. As mentioned earlier, both the conscious and unconscious, or linear and nonlinear, portions of the mind contribute to this process, which for this reason may be said to occur on the boundaries of order and disorder. Not surprisingly, the aesthetic priority Coleridge places upon organicism also plays a significant role in the process of organization; Coleridge even employs an organic metaphor as he attempts to describe the kinds of inherent rules that guide poetic creation:

Could a rule be given from without, poetry would cease to be poetry, and sink into a mechanical art . . . . The rules of the IMAGINATION are themselves the very powers of growth and production. The words, to which they are reducible, present only the outlines and external appearances of the fruit. A deceptive counterfeit of the superficial form and colors may be elaborated; but the marble peach feels cold and heavy, and children only put it to their mouths. (Biographia II: 83-84)

Clearly, Coleridge states that the rules of the imagination are organic, so organic that they may not be expressed completely in words. With respect to Coleridge's references to the method of organic form and
organic unity, Appleyard has difficulty reconciling what he views as determinism in the organic process of, for example, the growth of a plant with the more unpredictable modifying functions of the imagination. For this reason, among others, Appleyard asserts that Coleridge never adequately conveys the ultimate process of creativity in terms of organic unity and the imagination (132, 140).

Appleyard is certainly correct when he proclaims Coleridge's theory deficient in its description of the details of the creative process; after all, Coleridge himself admits in the above quote that the operation of the imagination may not be described fully in words. But according to chaos theory, Appleyard errs in his depiction of the growth of a plant as a predictably deterministic process, for even though the "tree-ness" of the acorn is preprogrammed in its genetic code, even DNA may alter itself unpredictably through genetic mutation; complex environmental factors will also force the tree to adapt during its growth cycle. Appleyard, of course, may not be faulted for such an error, because he only reflects the dominant essentialist vein that Coleridge displays in most of his writings. But on occasion, Coleridge seems to intuit the influence of the supersensuous realm upon the imagination as providing more unpredictability and spontaneity than his frequent Platonic references to unity imply at face value.
At this point, Coleridge's admitted inability to describe the imagination in words, combined with the vagueness of the definition in the Biographia Literaria and the fact that he felt compelled to divide this important mental faculty into two distinct parts, indicates that Coleridge himself does not understand the imagination in exact terms. When one attempts to interpolate and extrapolate from Coleridge's comments concerning the imagination, however, an overall picture of this faculty may be derived. First of all, the imagination is the seat of creativity in the human mind. The primary imagination apparently serves as a sort of unconscious generator of internal ideas and images inspired by the realm of the supersensuous. The skill of the artist lies in the secondary imagination's ability to tap into, modify, and effectively craft the raw material provided by the primary imagination into a unified work of art. For his reason, Coleridge's overall view of the imagination is often referred to as a "modifying" faculty of the mind.

Another way to approach Coleridge's theory of the imagination arises in chapter five of the Biographia Literaria when he describes the psychological make-up of the mind as containing three main classes: the passive, the voluntary, and the spontaneous (I: 90). Coleridge defines the passive portion of the mind as that which receives sensory impressions, as well as involuntary
thoughts and emotions. In contrast, the voluntary portion of the mind originates thoughts and ideas, thus being the most highly conscious component of the mind and the seat of the free will and reason. A binary system composed of only the passive and voluntary portions of the mind would bear the markings of a typical Coleridgean theoretical construction; the addition of the third section, the spontaneous, therefore makes this particular system at least somewhat unique. Coleridge describes the spontaneous part of the mind as the mediating agent between the active and passive portions. Because of its reconciling function, this component also serves as the residence of the imagination; one might even think of the most spontaneous portion of the mind as existing in the overlapping region between the more passive primary imagination and the more active secondary imagination.

Coleridge's theoretical model of the psychological make-up of the human mind appears obviously outdated by today's standards, but his notion that spontaneity lies between activity and passivity, the conscious and the unconscious--in essence, order and disorder--very much parallels the most recent explanations of spontaneity based on chaos theory. After all, a mind with thought patterns behaving according to a sensitive dependence on initial conditions would most likely appear to experience new ideas spontaneously and unpredictably through the emergence of self-organization, rather than carefully
crafting the thoughts through a linear method based solely in causality and reductionism. Furthermore, Coleridge's establishment of the spontaneous portion of the mind as the seat of the imagination encourages a comparison of Coleridge's theory of the imagination with self-organization, which also serves a creative as well as reconciling function as a source of new levels of order in unstable, aperiodic systems.

Such a comparison also links Coleridge's theory of the imagination with Koestler's theory of problem-solving and creativity. For Koestler, creative genius enjoys the heightened ability to shift between planes of reference within the mind, resulting in the discovery of concepts that could not be attained through simple logic/reason. Coleridge's notion of genius, by exercising the talent for accessing the supersensuous, also effectively shifts planes of reference, although on a greater scale. The difference, therefore, lies in Koestler's emphasis upon a creative spark internal to the human mind, while for Coleridge, the new idea originates in the spiritual realm;¹³ but regardless of where the inspiration derives from, the mind gains access to it in a remarkably similar manner in both theories.¹⁴

Coleridge and Koestler also present similar respective descriptions of the identifying marks, or effects, of heightened creativity. For Koestler, the shift of reference planes enhances creativity by
encouraging the artist to view the work of art (or possibly the subject of the work?) in a strange new light. Coleridge makes a quite similar statement when he describes the power of the imagination to modify images as being mostly a power to cultivate mood or atmosphere, introducing "the sudden charm, which accidents of light and shade, which moonlight or sun-set diffused over a known and familiar landscape"—quite literally a strange new light (Biographia II: 5). Not coincidentally, Coleridge scholar James Volant Baker refers to Coleridge's emphasis upon atmosphere as "a spiritual meteorology or 'inner weather'" (124). The weather in general has also proven a fertile and quite literal metaphor for chaos theory, most evident in the highly publicized popular example of a sensitive dependence on initial conditions, "the butterfly effect."

The artists and theorists of the romantic movement developed a fascination for the weather because of the indeterminacy and magnificent, dramatic effects displayed by the weather, such as those generated during a thunderstorm. Coleridge, in fact, provides a description of clouds that easily could have been written for a modern book about chaos theory: ". . . the number and variety of (the clouds') effects baffle our powers of calculation: and that the sky is clear or obscured at any particular time, we speak of, in common language, as a matter of accident" (Friend I: 529). According to Arden
Reed, the romantic appreciation of the weather represented a sharp break from neoclassicism; the exactness of scientific experimentation that developed during the enlightenment excluded or ignored factors such as the weather, which could not be controlled, effectively moving science indoors (4). The romantic movement, therefore, exemplified a shift to the outdoors, an appreciation of a complexity in nature that may not be described by Euclidean geometry or duplicated under the controlled conditions of the scientific laboratory.

Coleridge called for a similar shift in the way that writers and critics view and approach literature—a shift from the linear laboratory conditions of neoclassicism (with its rigid precepts) to the naturally complex, spiritual realm of the imagination, which Coleridge describes as: "The completing power which unites clearness with depth, the plenitude of the sense with the comprehensibility of the understanding...impregnated with which the understanding itself becomes intuitive, and a living power" (qtd. in Baker 206). From a formal point of view, the last line of the above quote carries the most substance, for the "living power" of an understanding impregnated with imagination enhances the ability of the artist to endow the work of art with a living, organic form, referred to by Baker as a "living design" (138) and by Coleridge as the "surview" of the work. This "surview"
enables a man to foresee the whole of what he is to convey, appertaining at any one point; and by this means to subordinate and arrange the different parts according to their relative importance, as to convey it at once, and as an organized whole. (Biographia II: 58)

At face value, this passage appears to be just another of Coleridge's statements in support of organic unity, but upon closer inspection, Coleridge seems to encourage the artist to follow a kind of pattern, or rather to keep the "surview" in mind so that the artist may align the overall pattern of the form of the work of art with the "living design" mentioned by Baker. As a set-up to the above quote, Coleridge points out that the poet should not only have a knowledge of the words typically employed by a particular class of people, but should also be familiar with the order in which the words are employed by that class. In other words, he is interested in the way people use words as much as the words that they use. Coleridge's "surview," therefore, refers to the signature patterns--the way that the individual parts are interconnected with the whole and with one another--as much as the mere emphasis of both part and whole aesthetically.

But the notion of signature patterns does not appear only in Coleridge's discussions of the relationship of part and whole; he often suggests that the artist should draw inspiration from the patterns that exist in nature. Coleridge refers directly to such patterns in a discussion of the reconciliation of emotion and thought: "A Poet's Heart and Intellect should be combined, intimately
combined and unified, with the great appearances in Nature—and not merely held in solution and loose mixture with them, in the shape of forced similes" (Letters II: 864). The emphasis here lies, of course, in Coleridge's concern for the reconciliation of opposites, but his employment of the phrase "great appearances" implies that some essence exists in nature that must be tapped by the poet in order to create quality poetry. Furthermore, Coleridge seems to bestow a sort of universal quality to this essence when he remarks on his observations of unity in nature, even among otherwise apparently disparate entities, as when he goes beyond a mere comparison between the shapes of frost and trees to state that: "The arborescent forms on a frosty morning, to be seen on the window and pavement, must have some relation to the more perfect forms developed in the vegetable world" (Miscellaneous 383). One need not leap too far logically to associate this connection that Coleridge perceives in the frost and plants of nature with the natural, supersensuous essence that serves as inspiration for the creative artist.

Briggs and Peat point out that the similarities between frost crystals and trees derive from their shared bond as examples of fractal patterns that exist in nature. Similar patterns may also be observed in the branching of rivers, the structures of galaxies, fractures in metal, and human respiratory and bronchial systems. But Briggs
and Peat are willing to take the notion of self-similar patterns beyond the level of the mere visual; as mentioned in the introductory chapter to this study, they cite research indicating that the way the brain decides which neurons will respond to a stimulus is similar to the way the immune system chooses cells to respond to a disease. This recalls Coleridge's concern for the poetic depiction of the way people talk as well as the words they use. Indeed, Coleridge's emphasis upon the supersensuous essence and "great appearances" in nature certainly anticipates chaos theory's discovery of similar patterns, not only in the physical form of nature, but also in the various ways that nature operates.

According to Coleridge, artists may best communicate the "great appearances" of nature through the employment of symbols; for Coleridge, symbols unify the signifier and the signified, thus conveying a transcendental meaning sometimes seemingly ideal to a Platonic extreme. Coleridge believes that symbols carry the essence of the nature within the thing that is represented. Symbols, therefore, seem to function as a shorthand for the deeper patterns of nature, or the spiritual realm: "The artist must imitate that which is within the thing, that which is active through form and figure, and discourses to us by symbols--the Natur-geist, or spirit of nature" (Miscellaneies 48). For Coleridge, therefore, a symbol illuminates the supersensuous within the work of art; a
symbol "is characterized by a translucence of the Special in the Individual or of the General in the Especial or of the Universal in the General. Above all by the translucence of the Eternal through and in the Temporal" (Statesman's 30).

Turning now from the creation of art to the reception of the work of art by an audience, Coleridge's theory seems to imply that an audience may perceive the symbolic illumination of the supersensuous essence within the work of art, but not as directly as the artist experiences the essence during the process of creation. Jackson contends that Coleridge was uncomfortable with this barrier between the minds of the audience and the spiritual core of the art--the insight relayed from the Communicative Intelligence. After all, Coleridge's own experience as a reader and playgoer testified that those who are exposed to the work of art are, in fact, able to play a more active role than his theory allows at face value; one example of such an observation arises in a discussion of French tragedy, in which he states that the tragedies "excite the minds of the spectators to active thought, to a striving after ideal excellence" (Biographia II: 184). In order to accommodate this activity of the mind as he perceived it in the spectator, Coleridge tried to derive less obvious theoretical means to explain how the audience might more closely perceive what the artist experiences during the act of creation (Jackson 131).
Not surprisingly, the ideal state of mind that Coleridge recommends for viewing works of art resembles the state of mind he advocates for the creation of art: a sort of dream state ruled at least partially by the unconscious, but nevertheless guided by conscious thought, or the will. He describes this psychological mode for experiencing art as "a middle state of mind more strictly appropriate to the imagination than any other, when it is, as it were, hovering between images." This statement resonates with chaos theory's assertion that creativity occurs on the boundaries in between absolute order and disorder. Coleridge continues, proclaiming that "As soon as (the state of mind) is fixed on one image, it becomes understanding; but while it is unfixed and wavering between them, attaching itself permanently to none, it is imagination" (Shakespearean II: 103). This latter observation not only corresponds with Coleridge's notion of the reconciliation of the conscious and unconscious in the creative operation of the imagination, but also appeals to general common sense and experience; most persons would agree that understanding requires a focused state of mind, while imagination seems to function best in the nonlinear realm when the mind is between images or ideas.

Most significantly for the purposes of this chapter, however, Coleridge employs his explanation of the dream
state in the development of his theory of dramatic
illusion. He first describes dreams by stating:

It is not strictly accurate to say that we believe our dreams to be actual while we are
dreaming. We neither believe it or disbelieve it--with the will the comparing power is
suspended, and without the comparing power any act of Judgement, whether affirmation or denial, is impossible. (Letters IV: 641)

By first setting up the idea that the power of comparison resides within the will, therefore establishing that his assertion concerning the absence of the will in dreams likewise removes the ability to compare reality with dream, Coleridge is able to make his most famous contention concerning the believability/reality of onstage events:

Add to [the argument in the previous quote] a voluntary Lending of the Will to this suspension of one of it's own operations (i.e. that of comparison & consequent decision concerning the reality of any sensuous Impression) and you have the True Theory of Stage Illusion . . . ." (Letters IV: 642)

Coleridge, of course, is stating that the spectator participates in a "willing suspension of disbelief," literally exercising the will so much as to cancel one of its own functions.

The upshot of Coleridge's discussion of the "willing suspension of disbelief" lies in the similarities between what happens in the mind of the spectator as a result of the experience of the work of art and what happens in the mind of the artist during the creative process.
Ultimately, such similarities may be said to result from the combination of conscious and unconscious mental activities. For the artist, the unconscious must be tapped in order to gain inspiration from the realm of the supersensuous, yet the conscious will is necessary to guide and shape the product. The audience employs the will in order to suspend disbelief just enough to allow a dream-like state to occur in which the mind wavers between images and ideas. Most significantly, in both cases the imagination is evoked by the oscillation between conscious and unconscious mental states (Jackson 134).

As a result of having their imaginations stimulated through witnessing the work of art, Coleridge believed the audience would benefit from a profound cognitive experience as well. Even though Coleridge distinguishes poetry from science "by proposing for (poetry's) immediate object pleasure, not truth" (Biographia II: 13), the pleasure that arises in the audience does so in response to what the artist represents and how the artist's imagination operates upon what is represented (Appleyard 133). Since for Coleridge, the poet enjoys "a more than ordinary sensibility," which results in "a more than ordinary sympathy" in the audience for the objects, persons, and situations represented, then the audience benefits from "a more than ordinary activity of the mind in general," particularly with respect to the imagination. Coleridge's ultimate goal for poetry, therefore, is quite
similar to that shared by Aristotle and Dryden: "intellectual pleasure" (Shakespearean II: 50-51).

For Coleridge, the poet who inspires the greatest degree of intellectual pleasure is Shakespeare, for his plays create in the reader and spectator the kind of active mental mode that Coleridge advocates. According to Coleridge: "You feel (Shakespeare) to be a poet, inasmuch as, for a time, he has made you one--an active creative being" (Shakespearean II: 65). Shakespeare, in fact, serves as Coleridge's ideal example of an artist blessed with a true gift of imagination; more than any other literary figure Coleridge discusses in his criticism, Shakespeare best conforms to the artistic standards Coleridge establishes in his theory.

For example, Coleridge sets forth the reconciliation of opposites and organic unity as two of the most significant elements of his theory of the imagination, and one may likewise find corresponding critical passages praising the contributions of these same ingredients in Shakespeare's works. One example of such a passage arises in an essay entitled, "Shakespeare's Judgement Equal to His Genius," in which Coleridge defends Shakespeare by attempting to prove that "the judgement of Shakespeare is commensurate with his genius, nay, that his genius reveals itself in his judgment, as in its most exalted form" (Literary 183). Here, Coleridge challenges the long-accepted belief that Shakespeare's works were products of
pure instinct, or--so to speak--pure genius, with no foundation in the orderly rules of dramatic literature; from Coleridge's perspective, this traditional view of Shakespeare's work implies that Shakespeare's creative process was ruled entirely by the unconscious, without the guiding force of the more linear conscious mind to keep the product orderly. Essentially, Coleridge responds by pointing out that Shakespeare wrote according to his own rules which, at least according to Coleridge's aesthetics, were indeed far superior to the "accepted" rules (such as neoclassicism) that Shakespeare appeared to ignore. Thus for Coleridge, Shakespeare's plays accomplish the reconciliation of the opposites of thought and instinct, the conscious and the unconscious, philosophy and poetry, even the real and the ideal.

As stressed repeatedly in this chapter, the reconciliation of opposites contributes to the establishment of organic unity, which arises repeatedly in Shakespeare's plays. After all, Coleridge states that the alternative rules that guided Shakespeare's creativity were the rules of nature, organicism itself. Thus Shakespeare's genius was not wild, as was often claimed by Coleridge's critical predecessors, but orderly in an organic, rather than mechanical, way; Coleridge consistently stresses the manner in which the individual parts of each of Shakespeare's plays serve the whole, yet maintain their own particular beauty. Shakespeare's
command of organic form therefore accounts for the reason that Coleridge perceives the speeches of Shakespeare's characters, just to cite one example, as arising naturally out of his characterizations instead of out of the pen of the playwright (Criticism 158-159).

Coleridge, of course, maintains that Shakespeare's ability to write plays that contain such an ideal organic unity derives from the extraordinarily high development of Shakespeare's secondary imagination. Coleridge believes, therefore, that Shakespeare's plays contain truths higher even than true-to-life; such truth and universality must come much more directly from the supersensuous nature, and thus the Communicative Intelligence, than from Shakespeare's own consciousness--even though the latter plays a significant role in shaping the former. Coleridge therefore refers to Shakespeare as "a nature humanized, a genial understanding directing self-consciously a power and an implicit wisdom deeper than consciousness" (Shakespearean I: 198). In addition to defending Shakespeare's judgement, Coleridge believes that Shakespeare's instinct should also be admired, rather than dismissed as untrained:

If Shakespeare be the wonder of the ignorant, he is, and ought to be, much more the wonder of the learned: not only from profundity of thought, but from his astonishing and intuitive knowledge of what man must be at all times, and under all circumstances, he is rather to be looked upon as a prophet than as a poet. (Shakespearean II: 140).
Clearly, from the above quote, Coleridge feels that an audience may learn much from the insight of Shakespeare's plays. Because of his highly developed imagination, Shakespeare likewise stimulates the imagination of the audience, igniting in them the intellectual sort of pleasure that Coleridge values in his theory. It was for this reason that Coleridge was so critical of the Shakespearean productions of his own day (as well as all other staged theatrical productions); he felt that elaborate stage spectacle diverted the audience's attention, thus interfering with the excitation of the imagination. He therefore believed that plays were better read than seen—at least in his own day. Coleridge, therefore, pined for the days of the Elizabethans, when "the stage, indeed, had nothing but curtains for its scenes, but this fact compelled the actor, as well as the author, to appeal to the imaginations, and not to the senses of the audience" (Shakespearean II: 123).

Coleridge's criticism of Shakespeare, therefore, conforms well to his theory of the imagination, from both the creative and experiential perspectives. Each of the mutual elements between Coleridge's theory and criticism are likewise significant when viewed through a framework based on chaos theory. But most importantly, Coleridge observed each of these elements of his theory of the imagination as operating "naturally" in the processes of creativity as well as in the reception of art by an
audience. He tried to explain each of these observations, even if he did not have a vocabulary or scientific basis for the concepts derived from the philosophical implications of chaos theory. Clearly, however, when Coleridge crafted his theory of the imagination as the ultimate impetus for creativity and his most perfect theatrical/literary/artistic moment, he instinctively understood that the most interesting types of creativity and experience occur in the chaotic moment that lies in the liminal nether-region between order and disorder.

End Notes

1 Appleyard was, of course, referring to the sum of the problems inherent in the Biographia Literaria when he offered his complaints concerning the difficulty of the work. According to Appleyard, Coleridge himself regarded the book as "immethodical miscellany" (125).

2 See Appleyard, Jackson, Tak.

3 Several Coleridge scholars have traced both the German and English roots of Coleridge's philosophical influences. See Emmet, Hamilton, Modiano, Shaffer, Hume.

4 The word "passion" alone does not necessarily imply chaos, but as with Dryden, Coleridge perceived the state of the human mind as illogical and disordered when ruled by passion. Also like Dryden, Coleridge considered passion to be a positive influence in the creation of poetry, as well as in the experience of reading poetry/drama or attending the theatre.

5 One must be careful not to confuse Coleridge's notion of the unconscious with Freud's. Although there are personal (subjective) aspects in Coleridge's understanding of the unconsciousness of the artist, the unconscious also allow the artist to tap into and thus communicate universal truths gleaned from the realm of the spiritual.

6 For the purposes of this chapter, the word "feeling" will refer to emotion, pleasure, intuition, and other
ineffable responses, as opposed to the phenomenological interpretation relating to the sense of touch.

7 Without performing a systematic examination of the sum of Coleridge's criticism concerning this topic, it appears that he (as well as most commentators on his critical works) tends to use the terms "organic form" and "organic unity" interchangeably. If he does make a distinction, then he seems to apply the term "organic form" when referring to the germination and growth of the work of art within the artist, while "organic unity" appears to be used more often in instances regarding the relationship of part and whole within the work of art. Admittedly, the former term does imply the latter and more often than not vise versa, but nevertheless, this minor distinction has been made for the purposes of this study.

8 Coleridge claims to be paraphrasing Pythagoras when he provides this definition in his essay, "On the Principles of Sound Criticism Concerning the Fine Arts."

9 Coleridge makes a similar statement in one of his lectures on Shakespeare when he defines poetry as:

an art (or whatever better term our language may afford) of representing, in words, external nature and human thoughts and affections, both relatively to human affections, by the production of as much immediate pleasure in parts, as is compatible with the largest sum of pleasure in the whole" (Shakespearean II: 41).

10 Coleridge does not actually employ the phrase "Multéity in Unity" in either of these examples, but does refer to the unity of the color and shapes of the sea and the unity of sound of the trees.

11 Appleyard points out that Coleridge derived this view of the imagination from Schelling, but eventually became distrustful of the extreme power Schelling ascribed to the imagination and its connection with nature. Apparently, Schelling's views resembled pantheism too closely for Coleridge's personal taste. Appleyard claims that this problem completely undermines Coleridge's distinction between the primary and secondary imagination in chapter thirteen of the Biographia Literaria (137-138). If, however, one simply views the essence of nature as being connected with the spiritual, rather than the entirety of nature, Coleridge's borrowing of Schelling still appears to fit with his overall theory of creativity and aesthetics.

12 It is difficult to discern whether Coleridge intended for there to be any significant difference between his employment of both the unconscious and nature
as sources of creativity. He probably used the two interchangeably, since the realm of the supersensuous is supposed to be a place of complete unity. Tapping into the spiritual through "natural" passion, therefore, should be essentially the same as accessing the spiritual through the unconscious, which should also be just as "natural."

13 Depending on how one interprets the rather vague spiritual aspects of Coleridge's theory of the imagination, one need not necessarily exclude the realm of the spiritual—and thus the trigger of creativity—from the internal human mind. This is a difficult question, for even though Coleridge often implies that the spiritual permeates all (which must include the individual human mind), he also gives the impression that creative genius lies in the artist's ability to access something outside of his/her own being. Again, the vagueness reflects Coleridge's own uncertainty about how to describe a creative/chaotic moment that he himself does not fully understand.

14 James Volant Baker employs a quote from Henry James to illustrate the interaction between Coleridge's secondary and primary imaginations in a manner that reinforces the connection with Koestler's theory of creativity:

I dropped it (my idea) for the time into the deep well of unconscious cerebration: not without the hope, doubtless, that it might eventually emerge from that reservoir, as one had already known the buried treasure to come to light, with a firm iridescent surface and a notable increase of weight. (122)

15 Most likely, Coleridge means that the spectator experiences what Shakespeare experienced as he created the play, as opposed to implying that the spectator becomes a full co-creator of the dramatic work.

16 See Janet Ruth Heller 33-94.
Chapter Five: Artaud's The Theatre and Its Double and the Patterns of Cruelty

In his collection of essays entitled The Theatre and Its Double, Antonin Artaud sets forth the theoretical principles for the formulation of a new theatre, his influential (yet practically difficult—perhaps impossible) "Theatre of Cruelty." According to Artaud, the necessity for a new theatre stems from the Western theatre's "terrible lack of imagination," a condition resulting from a preoccupation with the dramatic text, psychological conflict, and social and moral didacticism (116). These aesthetic "problems" arose when humanity separated art from life; the Theatre of Cruelty would not only heal such a perceived separation, but would also heal the psychic ills brought about by this gulf, this rift that disengages humanity from the very essence of life itself. Artaud, therefore, proposes to restore theatre to its most primitive, essential, magical roots. His ideal theatre would not be the double of life; rather, life would be the double of his theatre.

The mystical nature of Artaud's theory inherently displays affinities for chaos theory's notion of a chaotic moment; this chapter will therefore begin with an examination of the sort of chaotic moment Artaud advocates as part of the experience of his theatre. The following issues will then be addressed respectively through a framework of chaos theory: 1) the relationship between order and chaos in Artaud's theoretical theatre,
2) Artaud's perception of the relationships between the spiritual and the material, and between life and culture, 3) the notion of a universal unity and Artaud's theoretical relationship of part to whole, 4) archetypal patterns, 5) Artaud's suggestions for a new stage language, 6) creative chaos and self-organization, 7) Artaud's "catharsis," 8) the cognitive aspects of Artaud's theatre, 9) Koestler's theories in relation to Artaud's, and 10) an indeterminate determinism.

Chaos theory's notion of a chaotic moment appears to be the most logical place to begin an examination of Artaud's theories because of the central status Artaud gives the more ineffable qualities of his theoretical vision of the universe. Attempting to trace the philosophical and intellectual influences that informed this vision appears problematic because, in the final analysis, Artaud claims to reject philosophy and intellectual thought in his own essays. His brief association with the surrealists in the mid-1920s must have at least strengthened the ideas he claimed to have already developed independently concerning dreams and the rejection of a conventional notion of literature. Rather ironically, the significance Artaud placed upon the spiritual aspects of art—which had been informed by the above-mentioned surrealist tenets—contributed to his being expelled from the surrealist group when they decided to endorse communism. Certainly the most
essential/spiritual aspects of Artaud's thought and theoretical theatre derived from his studies of mysticism, particularly Cabala, and his interest in Eastern religions and theatre.

Because of its essential/spiritual quality, Peter Brook categorizes Artaud's Theatre of Cruelty as "Holy Theatre" but states that it could also be referred to as "Theatre of the Invisible-Made-Visible." The "invisible" and its impact upon an audience, in fact, characterize the ultimate goals Artaud proposes for his theoretical theatre. Artaud, therefore, would agree with Brook's description of the theatre as:

the last forum where idealism is still an open question: many audiences all over the world will answer positively from their own experience that they have seen the face of the invisible through an experience on the stage that transcended their experience in life. (42)

Artaud, however, would take this experience of the invisible--which he perceives as being the underlying unity of the spiritual realm--to its most extreme conclusion; emphasizing its power to operate directly upon what Artaud calls the "unconscious" of the spectator, Artaud intends for the invisible experiences of his theatre to eventually bring about a favorable change in individual, as well as community, psyches.

From a perspective based on chaos theory, Artaud clearly attempts to describe a "chaotic moment" when he locates the most powerful aspects of his theatre within

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the realms of the invisible and the "unconscious." Like Aristotle, Artaud expresses the ultimate end of his theatre in terms of a cathartic process; like Coleridge, he discovers the most essential elements of his theatre in the realm of the spiritual. But unlike any of the other figures discussed in this dissertation, Artaud does not value any form of "intellectual pleasure." Artaud, in fact, believes that the theatrical event should engage only the irrational portions of the spectator's being: emotions, intuition, instinct—hence the difficulty of Artaud's theories. These same sorts of ineffable qualities also inform Artaud's notion of the unconscious; Artaud would most likely define the unconscious as an unstructured, primitive portion of the mind closely associated with an ideal, universal realm of the spirit.2

If one were to criticize Artaud by stating that such a definition is too mystical, Artaud would counter by asserting that the true, spiritual reality may not be defined in exact terms; if one were to challenge the existence of a universal experience, Artaud would proclaim that absolute subjectivity is a false construction of Western civilization and culture, which are themselves barriers to spiritual unity because of their emphases upon intellectualism and rational thought. According to his friend and contemporary, Arthur Adamov: "Artaud's theoretical work was completely inspirational. There was something evanescent about his dramatic ideas, and when
one approached them, when one thought he had grasped them, they vanished" (qtd. in Sellin 101). Artaud, of course, delights in the evanescent and mysterious and berates the drama of psychological conflict for "relentlessly" reducing "the unknown to the known, to the quotidiant and the ordinary" (77).

Bettina L. Knapp posits that Artaud's fascination with the ineffable and nonlinear facets of the human mind derives from his own inability to think rationally as a result of his lifelong bouts with mental illness (78). Because he views the world through an irrational gaze, Artaud tends to perceive the problems of the world as a consequence of the human race's general lack of communion with the instincts he himself is attuned to so finely and which, he believes, provide access to the invisible essence of life itself.

Artaud, recognizing conventional theatre's inability to produce such visceral responses in the spectator, seeks to strip the theatre of all logic and verisimilitude in order to convince the audience that they are witnessing the most essential aspects of their own being. Thus for Artaud, life is merely a "double" of the greater truth portrayed on the stage, a view similar to Jarry's concept of the "mirror-play" through which the audience recognizes themselves as monsters.3 Because a Western audience would not easily abandon the comforts of linear thought or realistic stage illusion and certainly would not willingly
peer into the darkest recesses of their own beings, Artaud feels that he must force the involvement of the spectator through shock and psychic assault. Before a production may be judged a success, the spectator must first react emotionally to the performance in the most extreme manner possible. Artaud's chaotic moment, therefore, lies in the audience's reactions to the emotional instability created by the shocking of their psyches.

For Artaud, the most efficient means of instigating the chaotic moment that results from dragging the unwilling spectator into the depths of his/her own psyche may be found in the theatrical presentation of myths. Artaud believes that myths relate the deepest qualities of human experience and therefore contain what he believes to be a universality capable of awakening any individual human unconsciousness. But not just any myth will touch the spectator in a manner appropriate to Artaud's theory; even the myths of the Greeks, Shakespeare, and the Bible are sorely inadequate in this respect. Only the most modern, up-to-date myths can truly express the conditions of contemporary human experience, and in Artaud's opinion, modern Western culture has failed to produce such myths. New myths must therefore be created, and rapidly, because their lack of existence contributes to the Western schism between humanity and nature, individuals and their respective selves.
These new myths should not, however, be expressed in the form of dramatic texts or written words of any kind. Artaud believes that poetry has power only in the moment it is created and therefore loses its essential nature when written down—hence the message of his aptly-titled essay, "No More Masterpieces." Language has lost its power as well for Artaud because of the gulf that has developed between the word and the real material/spiritual object it represents, essentially the separation between the signifier and the signified. Artaud asserts that form is an empty shell if it does not carry with it an essence. "Call it thought-energy, the life force, the determinism of change, lunar menses, or anything you like. Beneath the poetry of the texts, there is the actual poetry, without form and without text" (78).

Artaud's appropriation of live theatre as the most ideal artistic expression of his theories therefore derives in part from performance's evanescent qualities, permitting "the action of what is gesticulated and pronounced, and which is never made the same way twice" (78). Here a contradiction seems to arise in Artaud's theories, for he appears to appreciate the aleatory elements of live performance, yet often calls for a precise language of the stage containing no ambiguity of the sign. Perhaps Artaud recognizes that the affective experience he values derives from a sort of chaotic moment, but one which may be aroused in the spectator.
through two very different methods: one based in a total
ordering of stage events that precisely communicates the
intentions of the director and another that emerges from
aleatory moments of disorder. For example, Artaud
advocates humour as a technique appropriate to his Theatre
of Cruelty because of comedy's anarchic qualities, which
disrupt the sensibilities of the audience and reverse the
expected order of things. But even though such a
predilection appears out of place among his other
carefully prescribed instructions for staging, the
effect/affect is the same; as Philip Auslander points out, Artaud's proposed theatre was intended to be causal,
rather than meaningful (22).

Artaud's assessment of the experience of the
theatrical event, therefore, resonates profoundly with
chaos theory's notion of the chaotic moment. The psychic
shock which Artaud proposes to inflict upon the spectator
would certainly create an instability in the individual
being similar to the chaotic moment which, according to
chaos theory, occurs in the interactive boundary region
between order and disorder. If such a shock may be
considered a form of extreme chaos in the mind/being of
the spectator, then this shock is certainly aroused by a
form of extreme order in the performance onstage.
Although some scholars discover a contradiction between
the notions of a tightly controlled theatrical event and
the releasing of subconscious repressions in the
audience, Artaud would assert that these extremes of order and disorder interact in a religious sense—in the same manner that the precise order of a religious ritual may be employed to summon chaotic feelings of ecstasy, ultimately resulting in the desired contact with the realm of the spiritual. Artaud would also state that true art is "anarchic" because, through the illumination of "natural" order (i.e., the "tree-ness" of the tree), it calls into question the human preoccupations with language and rational thought (42-43).

For Artaud, therefore, theatre creates a medium for interaction between the material and the spiritual, between humanity and nature, between the real and the ideal; theatre "reforges the chain between what is and what is not, between the virtuality of the possible and what already exists in materialized nature" (27). The necessity for such union and interaction derives from the separation of art and culture from everyday life, "as if there were culture on one side and life on the other, as if true culture were not a refined means of understanding and exercising life" (10). As mentioned earlier, this separation has contributed to the decadence of modern European society and the psychic ills Artaud wishes to cure. Essentially, Artaud intended for his theatre to break down the dichotomy between culture/art and life, just as the traditional dichotomy of order and disorder dissolves under a world view informed by chaos theory.

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In order for his theoretical theatre to achieve this dismantling of the dichotomy between culture and life, Artaud places all of his faith in the stimulation of the instincts, intuitions, and emotions of the spectators, rather than an appeal to their rational, linear modes of thought. Artaud states, therefore, that his Theatre of Cruelty may not be analyzed philosophically, but:

only poetically and by seizing upon what is communicative and magnetic in the principles of all the arts can we, by shapes, sounds, music, and volumes, evoke, passing by way of all natural resemblances of images and affinities to each other not the primordial directions of the mind, which our excessive logical intellectualism would reduce to merely useless schemata, but states of an acuteness so intense and so absolute that we sense, beyond the tremors of all music and form, the underlying menace of a chaos as decisive as it is dangerous. (50-51).

Of course, the "dangerous" aspect of the chaos (chaotic moment) that Artaud refers to lies in its ability to shatter the barrier between the true, spiritual reality and the artificial constructs of Western civilization. Artaud believes that the human body holds mysterious "natural" powers--repressed and forgotten by the conscious mind--that must be re-awakened, both in the actor and the audience, before either individual or collective psyches may be reached in the manner necessary to achieve the illumination of the spiritual reality. Artaud therefore intends for the actors of his theatre, through primarily physical means, to summon the supersensuous images and emotions capable of affecting the entire being--the
physical bodies as well as the psyches--of the spectators, thus bringing the audience closer to themselves, each other, and even the secrets of life itself. As Artaud states in his first manifesto on the Theatre of Cruelty: "In our present state of degeneration it is through the skin that metaphysics must be made to re-enter our minds" (99).

Since the images and emotions that the actors physically/psychically communicate to the audience during a Theatre of Cruelty performance derive from the modern myths that Artaud stipulates as the source material for his theatre, these myths must be universal to the extent that the theatre become "the equal of life . . . the sort of liberated life which sweeps away human individuality and in which man is only a reflection" (116). The universal constant that Artaud's theatre strives to attain lies in this essence of life that "sweeps away human individuality," that connects not only every living thing, but every thing as well. This universal constant lies in the perfect, original state of unconscious unity with the universal life force, which Artaud seems sometimes to associate with Eastern notions of spiritual unity (a subject that will be explored in more detail later); Artaud, at least, does clearly state that Western civilization has alienated the individual from such unity. Artaud's theatre must therefore be considered "cruel" because the performance forces the spectator to recognize
his/her own separation from this perfect, blissful unity. At the same time, however, Artaud considers his Theatre of Cruelty to be a saving grace, because once an individual understands the interactive connection between the material and spiritual worlds, he/she will be at peace with the destructive forces in his/her own psyche; once enough individuals find this inner peace through the experience of Artaud's theatre, war and violence will seem pointless (if all is one, then why fight with oneself?) and eventually cease to exist. As in Coleridge's theory of the imagination, therefore, artists are given a privileged position in Artaud's theoretical universe, because only they may save humanity from its current miserable existence and almost certain destruction.

Artaud's notion of a universal unity to which every person and every thing is connected parallels the description of the relationship of part to whole, and thus the very description of the universe, according to chaos theory. For example, scientist David Bohm theorizes that the universe is fundamentally indivisible, and that the parts are just abstractions of the whole, rather than autonomous units subject to reductionist analysis. John Briggs and F. David Peat even state that "Bohm's ideas give a scientific shape to the ancient belief that 'the universe is one'" (29). Artaud's proposed theatre also resonates with chaos theory's notion of an interactive relationship of part to whole on the microcosmic level of
the theatre house on any given night. Artaud states that the Theatre of Cruelty should not only impact the individual psyches of the spectators, but the collective or community psyche of the audience as a whole as well. This holistic view of the theatre experience results in a total audience that certainly may not be described as the sum of its parts.

The relationship of part to whole in Artaud's theoretical theatre also coincides with that of chaos theory from the perspective of the stage and staging. Artaud relies on many different theatrical elements to create his desired affect upon the sensibilities of the audience: cries, groans, apparitions, surprises, costumes, lighting, music, colors, rhythm, movement, masks, puppets, and others. All of these disparate elements must be brought together to create the new theatrical language necessary for directly assaulting the human unconscious. The director's job entails the creation of unity from the disunity of the theatrical raw material; Artaud refers to the director as a "unique Creator," "a kind of demiurge," comparing his role to that of a magician, priest, and even god (94, 114-115). But even though the director unifies the various aspects of the production, he/she should not tie together the individual parts of the performance in a rational manner. In order to produce an irrational effect in the mind of the spectator, the play should not provide images that may be linearly ordered in any fashion. Cause
and effect, suspense, and depth of character should not, therefore, be evident in Artaud's theatre. As in the relationship of part and whole advocated by chaos theory, the impact of the individual fragments of the production should be treated as significantly as the totality of the work.

Chaos theory posits that one of the principal reasons for the pervasive unity that results from a nonlinear, interactive relationship between part and whole may be discovered in natural phenomena containing similar and self-similar "patterns"—behavioral as well as geometric. Artaud's theories also display affinities for repetitive patterns, which on one level appear in the myths he advocates as source material for his theatre; the universal aspects of these myths exhibit patterns that trigger reactions in the audience, many of which are self-similar (from a point of view of the total theatre event) with the individual experience of the spectator. Artaud, in fact, asserts that "The true purpose of the theater is to create Myths, to express life in its immense, universal aspect, and from that life to extract images in which we find pleasure in discovering ourselves" (116).

Artaud's rather Jungian employment of the archetypal quality of myths for their impact upon the human psyche emerges on a more detailed level in Artaud's descriptions of the stage language necessary to effect the communication of these myths. As Artaud states in his
essay entitled "The Theater and the Plague": The theatre "recovers the notion of symbols and archetypes which act like silent blows . . . inflammatory images thrust into our abruptly wakened heads. The theater restores us all our dormant conflicts and all their powers" (27). For example, the individual gestures and utterances of the actor are intended by Artaud to express symbolic, archetypal patterns that touch and wound the core of the spectator, as opposed to communicating rational ideas and meanings. The rhythmic patterns of the actor's voice and body shall serve a communicative function as well in a manner that, Artaud suggests, should be inspired by hieroglyphic characters, a notion that proves too mystical for many of Artaud's critics, but has been explored with varying (and debatable) degrees of success by theatre artists such as Peter Brook and Jerzy Grotowski.9

In addition to the hieroglyphic communication of the actor's voice and body, Artaud asserts that every individual aspect of the theatrical production should convey a symbolic significance deeper than the obvious surface message; as Artaud states with respect to the desired "interpretation" of his Theatre of Cruelty: "The spectacle will be calculated from one end to the other, like a code. Thus there will be no lost movements, all movements will obey a rhythm" (98). This notion was at least partially influenced by Artaud's attendance of a Balinese theatre production in 1931 (Esslin 35).
As an example of how individual production elements may convey symbolic significance, Artaud states that lighting may be employed for the purposes of reaching the unconscious minds of the audience through "luminous vibration"; Artaud further stipulates that a manipulation of the patterns of vibration would determine the precise nature of the emotional impact upon the audience (95). Costumes as well may be given an air of the mystical by treating them as hieroglyphic works of art (as in the Eastern theatre), thus making stage garments more than mere indicators of character or fashion. Musical instruments used during a performance should be given a double role as symbolic stage props. Masks and props may be made to play a significant role in Artaud's new theatrical language through their appearance on the stage in the forms of strange, unrealistic sizes, shapes, colors, etc. Artaud even refers to giant puppets as means of symbolically depicting actions or objects; for example, Artaud mentions "manikins ten feet high representing the beard of King Lear in the storm" (97-98).

As evidenced by the examples given above, Artaud refers to two types of patterns when describing the practical aspects of his Theatre of Cruelty: rhythmic patterns and symbolic or hieroglyphic patterns. The power of each of these patterns lies in their ability to bypass the rational portions of the mind, thus creating emotional responses that speak directly to the instincts of the
individual. The patterns employed in Artaud's theatre, therefore, should not be linearly analyzable or reducible to "lucid language" because "All true feeling is in reality untranslatable" (71). Peter Brook articulates the significance of patterns as means for expressing the ineffable facets of human experience in his discussion of "Holy Theatre":

> We are all aware that most of life escapees our senses: a most powerful explanation of the various arts is that they talk of patterns which we can only begin to recognize when they manifest themselves as rhythms or shapes. We observe that the behavior of people, of crowds, of history, obeys such recurrent patterns. (42)

An individual informed by a perspective based on chaos theory would agree that patterns hold the potential for communicating the "untranslatable" which "escapes our senses." The specific examples Artaud provides for the individual elements of his proposed stage language appear too simplistic, however, to account for the complexity inherent in the self-similar patterns illuminated by chaos theory. Certainly Artaud's more general comments concerning his theoretical stage language are more valuable to theatre practitioners than the particular examples he occasionally supplies.

Even though Artaud favors a stage language based in the patterns of rhythms and symbols over one that emphasizes spoken dialogue and the dramatic text, he does suggest that words should not be vanquished from his theatre altogether. The spoken word should be utilized,
but accorded no more weight than any other element of the production. In a typically mystical fashion, he states that words should be given a significance similar to their appearance in dreams; Artaud must mean that words should be employed on the stage abstractly, with an emphasis on communicating raw emotion, rather than semantics, for he refers to a supersensuous power of the word found in ancient hymns and prayers, but lost to modern Western culture. Words must be destroyed before such magical, primitive qualities may be returned to them and recreated in a form closer to hieroglyphs. The rhythmic properties of words should be exploited as well, as Artaud states in his Fourth Letter on Language:

Rhythmic repetitions of syllables and particular modulations of the voice, swathing the precise sense of words, arouse swarms of images in the brain, producing a more or less hallucinatory state and impelling the sensibility and mind alike to a kind of organic alteration which helps to strip from the written poetry the gratuitousness that commonly characterizes it. (120-121)

Artaud proposes that, in order to gain a mastery of the appropriate rhythmic patterns for the voice, the actor should study and perfect breathing techniques found in the Cabala. According to Artaud, the actor can stimulate specific emotional responses in the spectator through the employment of the proper "breaths," which coincide with precise physical locations in the body of the spectator corresponding to the correct emotions; Artaud proposes to build an emotional language of the body by integrating the
six different combinations of breath found in the Cabala with the 380 Chinese acupuncture locations. In his essay entitled "An Affective Athleticism," therefore, Artaud refers to the actor as "an athlete of the heart," for he/she must be physically trained to the extent that the body presents no physical resistance to the manifestation of the emotions and instinctual impulses that must be conveyed through the breath, the voice, and gestures (133). This system of acting is rooted in Artaud's assertion that emotions are materially and organically related to the body in a manner that contemporary actors have failed to comprehend directly:

The gifted actor finds by instinct how to tap and radiate certain powers; but he would be astonished indeed if it were revealed to him that these powers, which have their material trajectory by and in the organs, actually exist, for he has never realized they could actually exist. (134)

When Artaud describes the essential patterns that may be summoned by the physical body of the actor, he is actually tapping into patterns of mythology found on a greater, more ancient level. As Knapp points out, Artaud's notion of an essential element within the human breath is paralleled in both Western and Eastern mythological theories of creation. In the Bible, for example, God "breathes" life into Adam, and Buddhists believe in an "all-pervading Breath," from which all life emerges and into which all life eventually redissolves (Knapp 85). The breath, therefore, carries essential, spiritual

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connotations in at least two vastly separate ancient religions. Artaud was relying on this essential power of the breath (emphasized in the Cabala as well) when he began speculating on its employment as a technique for acting. Artaudian scholar Timothy J. Wiles apparently overlooks Artaud's assumption of the spiritual, even magical power of the breath with respect to the essential life force when he criticizes Artaud's suggestion of complicated breathing patterns as an element of his stage language, for Wiles dismisses Artaud's idea as merely one form of semiotics propped up in the place of another (the latter being the traditional spoken word and dramatic text) (125). One may, of course, criticize Artaud's system for its lack of practicality and even for its lack of proven success, but one must grant Artaud his own faith that his system, if applied correctly, would unify the sign by incorporating the pure spiritual essence of what is to be conveyed within the carrying device, thus creating a pure, perfectly efficient language that defies semiotics.

To summarize, or at least attempt to put together some of the most coherent pieces of the puzzle, Artaud believes that human emotions, instincts, intuition, dreams, unconsciousness, etc., provide conduits to the supersensuous essence of life. He proposes that these ineffable aspects of the human mind/being may be accessed materially/physically through the appropriate "patterns"
of the stimulation of the senses through light, sound, movement, and the essential breathing and knowledge of the physical location of emotions in the body. These patterns make up a language of the stage that bypasses the logical mind and speaks directly to the above-mentioned ineffable aspects of the individual; the essential truth of the patterns shocks the individual into a chaotic moment that allows him/her to perceive the hidden spiritual unity of the universe. In one statement, Artaud employs the words "Creation, Becoming, and Chaos" to describe the spiritual truths which may operate upon or at least be made manifest to an audience through Theatre of Cruelty. According to Artaud, Creation, Becoming, and Chaos "are able to create a kind of passionate equation between Man, Society, Nature, and Objects" (90).

For Artaud, the link between the terms "creation," "becoming," and "chaos" most likely derives from the ancient association of creativity with a chaotic entity or phenomenon often referred to as a void or vortex. Under chaos theory, however, creation and becoming may be described as processes that occur when new patterns of order arise out of chaos through "self-organization" or "emergence." Artaud's actor draws upon the creative/chaotic essence of nature in order to contact the primal emotions and impulses that must be spontaneously produced during a performance; the director/demiurge tells the actor which patterns of rhythms and symbols to employ

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during the rehearsal process. Ultimately, the patterns communicated by the actor must relate directly to invisible feelings deriving from the essential life force. From the spectator's point of view, the ordered rhythms and symbols communicated by the performance react with the physical bodies of the audience to produce the same appropriate emotions and impulses; these feelings produce a shock in the spectator that helps him/her reconnect with the spiritual realm, thus healing the psychic ills of the audience, and ultimately, society. From both the creative and experiential perspectives of Artaud's theatre, therefore, chaos may be discovered underlying order, and order may be observed "emerging" out of chaos.

Artaud describes the self-organization of his ideal theatre event as one which involves both the transcendence of normal experience and the emergence of a unified—even to the extent of holism—performance product. The precisely ordered stage language he proposes operates according to a chaotic, underlying human "nervous magnetism" that permits "the transgression of the ordinary limits of art and speech, in order to realize actively, that is to say magically, in real terms, a kind of total creation in which man must reassume his place between dreams and events" (93). Auslander presents Artaud's "nervous magnetism" as a sort of cathartic "frenzy" that begins in the actor and spreads to the audience "like an epidemic." The actor, according to Auslander, is the key
to uniting the spectator with the intangible (23). The overall pattern of a characteristic performance of Artaud's Theatre of Cruelty might be outlined therefore as one of order--chaos--order: the order of the carefully planned and executed performance summons the underlying essential chaos, which is transferred directly to the audience, resulting finally in the self-organization of a new level of order in the mind/being of the spectator.

The final step in this process is often compared with Aristotle's concept of catharsis, or at least, a generalized notion of catharsis deriving from Aristotle. Recalling the discussion of Aristotle's catharsis clause in the second chapter of this study, the conclusion that catharsis functions--according to Golden's interpretation--as a process of intellectual clarification does not serve Artaud's purposes at all. Artaud, in fact, often seems to go out of his way to exclude intellectual thought processes from the experience of his theatre. However, Aristotle's emphasis upon the revelation of universal human experience through the theatre clearly parallels Artaud's theories. Furthermore, the idea of "clarification" alone (without intellectual references) arises repeatedly in Artaud's descriptions of the power of his ideal theatre. For example, in Artaud's essay comparing the theatre to the plague, he states that the theatre:
is beneficial, for, impelling men to see themselves as they are, it causes the mask to fall, reveals the lie, the slackness, baseness, and hypocrisy of our world; it shakes off the asphyxiating inertia of matter which invades even the clearest testimony of the senses; and in revealing to collectivities of men their dark power, their hidden force, it invites them to take, in the face of destiny, a superior and heroic attitude they would never have assumed without it. (31-32)

Certainly from this perspective, one might presume to define Artaud's notion of catharsis as one of spiritual or psychic clarification.

With respect to the self-organizing aspects of his variety of catharsis, Artaud states that through the psychic shock the audience receives as a result of experiencing the theatre event, they will gain an awareness of certain dominant powers and overarching ideas (which may also be considered powers, because "ideas, when they are effective, carry their energy with them").\(^{12}\) The psychic clarification of these newly discovered--or rediscovered--powers and ideas render the audience "capable of recovering within [them]selves those energies which ultimately create order and increase the value of life." The "order" Artaud refers to here lies in the human ability to rise above "disorder, famine, blood, war, and epidemics" (80).

In addition to the notion of a recovered order that emerges from the application of newly discovered ineffable powers springing from the chaotic opening of the spectator's unconscious psyche, Artaud also emphasizes the
value of "ideas" in the above statement, thus admitting at least some sort of cognitive aspect to his theoretical process of catharsis. This seems to contradict what so many scholars have interpreted as a homeopathic foundation to Artaud's catharsis. True, Artaud refers to a conquering of the violent and evil impulses in the spectator through the experience of the stage events, but not through purgation; rather, "the theater teaches precisely the uselessness of the action which, once done, is not to be done" (82). The element of teaching alone negates indications of a homeopathic purgation. The spectator does not "spend" dangerous impulses by living them on some meta-level in the theatre; instead, the audience learns more about these impulses and how such impulses separate the audience from the spiritual realm and from themselves through experiencing a life on the stage that is even more real than their own. The theatre, therefore, is not a safe place to spend dangerous energies, but a dangerous place where such energies are illuminated for what they truly are. The danger of this theatre lies in a performance that does not just present these energies but actively engages the entire being of the audience with images that "crush and hypnotize the sensibility of the spectator seized by the theater as by a whirlwind of higher forces" (Artaud 83). Ultimately, Artaud wants this aggressive aspect of his theatre "not to define thoughts but to cause thinking" and "entice the
mind to take profound and efficacious attitudes toward it from its own point of view" (69). Because he wants the audience to learn and theatre to cause thinking, Artaud betrays his own arguments against intellectualism in order to serve his plans for theatre to cognitively effect the audience, thus revolutionizing the social order and ultimately saving the human race from itself.

The mention of this cognitive aspect of Artaud's ideal theatrical experience, ignored by most scholars, is not to deny the emotional and unconscious experiences that Artaud favors above all. In fact, the very exercises in cognition that Artaud advocates as a result of the experience of his theatre involve the realization and understanding of the repressed emotions and elements of the unconscious psyche. Martin Esslin skillfully describes the purpose of Artaud's theatre in terms of audience experience from the emotional perspective as well as the ultimate cognitive and even, as Esslin asserts, social perspectives:

[Artaud's] theatre [is] defined as an assembly of human beings striving to establish contact with the profound mainsprings of their own being, the dark forces of physical emotion which lie beyond the trivialities of their everyday existence. The theatre enables them to experience the full reality of these emotions without involving them in irreversible real life situations in which alone experiences of such shattering power could otherwise be lived through. And by making the full force of a full emotional life, the whole gamut of human suffering and joy again active in multitudes of human beings, the theatre could change their basic attitude to life and institutions, their
ways of thinking, their entire consciousness and thus transform society and the world. (83)

Esslin's depiction of Artaud's model cathartic experience resonates with chaos theory not only in respect to his dual emphasis on the more orderly cognitive aspects of the spectator's mind as well as the more chaotic emotional facets, but also through his portrayal of the reorganization (self-organization?) of the "entire consciousness" of the audience as a result of the chaos of the psychic shock associated with witnessing the theatre event. But of course, the changes in individual thoughts and attitudes are small potatoes compared to the ultimate transformation of the whole of society and even the world. As Artaud himself proclaims, "I am not one of those who believe that civilization has to change in order for the theater to change; but I do believe that the theater . . . has the power to influence the aspect and formation of things" (79). The notion that theatre may change the world especially suggests the influence of chaos theory's process of self-organization, as the resulting new social order would emerge from the interaction of the individual consciousnesses altered by the theatrical experience.

Returning to the level of the individual consciousness and the cognitive as well as psychic effect upon the spectator, one may observe Koestler's theories of problem-solving and creativity within the self-organization of recognition and understanding as a result of the theatre's affective attacks upon the individual.
For example, the effect of the psychic shock upon an audience member, as advocated by Artaud, would certainly qualify as a shift in frames of reference, as described by Koestler. Koestler asserts that the solution to a problem or source of creative inspiration may lie outside the particular plane of reference within which an individual is trapped,\textsuperscript{14} thus requiring removal from the problem or project in order to shift to another reference plane, hopefully one in which a solution may be found. Artaud's psychic shock would provide such a removal, but in this case, the shift in reference planes would entail a shift from the conscious mind to the unconscious psychic mind/spirit (Artaud uses the word esprit, meaning both mind and spirit and having, of course, no English equivalent). The solution to be discovered by the spectator would involve the recovery of lost spirituality and feelings of cosmic unity, which for Artaud provides a basis for the solution of virtually all of the problems of Western civilization as well.

Although when Koestler employs the notion of shifting frames of reference in problem-solving, he is mainly referring to the advantages of the potentially fresh perspective that may be brought about by changes in situation or environment, he also mentions the ability of the artist to cast ordinary objects or events in a strange new light through a similar process. Of course, this latter aspect of Koestler's theories equally applies to
the hypothetical effects of Artaud's theatre. One of the manners through which Artaud advocates casting the experience of the spectator in a strange new light may be observed in his frequent allusions to the power of dreams to impact reality, as when he states: "In the same way that our dreams have an effect upon us and reality has an effect upon our dreams, so we believe that the images of thought can be identified with a dream" (85-86).

This interactive description of the realms of dreams and reality conjures an impression of feedback loops reiterating images and ideas until they take on a significance that otherwise could not be found in conscious thought. The concept of feedback loops was certainly not alien to Artaud, for he proposes that the various elements of a Theatre of Cruelty production should act and react with one another and with the audience until an overall unity emerges, but on an emotional level, rather than one of meaning or message. Knapp produces a similar interpretation of Artaud's theory when she states that the performative events elicit psychological projections from the audience that become amplified through onstage tension that in turn causes tension in the audience as well. Once this tension reaches a certain intensity, the spectator comes to view his/her problems from a different perspective and the fragments of the spectator's psyche are returned with an added unity and verve (81). The key to this model, of course, lies in the
breaking point of the tension, which not only corresponds to Koestler's shift in planes of reference, but also involves Artaud's endorsement of the beneficial powers of cruelty involved in the shock of recognition and eventual closure of the gap between the individual and the spiritual self.

Artaud associates cruelty with the theatre because "everything that acts is a cruelty" (85). He also links cruelty with creation and consequently, chaos. Artaud states that he employs

> the word cruelty in the sense of an appetite for life, a cosmic rigor and implacable necessity, in the gnostic sense of a living whirlwind that devours the darkness, in the sense of that pain apart from whose ineluctable necessity life could not continue . . . . When the hidden god creates, he obeys the cruel necessity of creation which has been imposed on himself by himself, and he cannot not create, hence not admit into the center of the self-willed whirlwind a kernel of evil ever more condensed, and ever more consumed. And theater in the sense of continuous creation, a wholly magical action, obeys this necessity. (102-103)

Having established that cruelty, for Artaud, pertains to action, creation, and chaos, one must note that these phenomena are related also through a kind of determinism evident in Artaud's employment of the word "necessity" repeatedly in the above quote. In fact, at the risk of overstating the case, Artaud elsewhere refers to cruelty as "a kind of rigid control and submission to necessity" (102).
Artaud's determinism informs the very definition of his Theatre of Cruelty, particularly when he feels, as he often does, that he must defend his choice of the word "cruelty" by understating its more violent and bloody connotations. Artaud emphasizes that the "cruelty" of the title of his proposed theatre does not refer to physical violence, such as "hacking at each other's bodies," but to something much more "terrible and necessary": "We are not free. And the sky can still fall on our heads. And the theater has been created to teach us that first of all" (79). Naomi Greene points out that Artaud's desire to liberate the audience from their bodies so that they may learn to harmonize with the spiritual realm stems from this same determinism (136-138).

Apparently, one of the central problems Artaud observes in Western culture lies in its over-emphasis on self-determination; a key realization that the spectator of a Theatre of Cruelty production may achieve, therefore, involves insight into the ability to close the gap between the self and the spiritual by submitting to the universal forces of destiny. A parallel may be observed in the creation and performance of Artaud's theatre, as the strict control of the director/god releases the actor--and through association, the audience--from the responsibility of free will.

At this point, one might perceive an inconsistency between Artaud's determinism and his emphasis upon the
creative powers of chaos. One need only recall, however, that for Artaud, the universal forces that govern fate also constitute the "living whirlwind" that guides creation. This connection also appears in a quote employed earlier in this chapter with respect to the ineffable essence of poetry, in which Artaud equates the "life force" with a "determinism of change" (78). Change, of course, implies action and creation; Artaud might as well have employed the phrase "determinism of chaos."

Such a view of determinism should only seem inconsistent, however, from a modern Western perspective rooted in predestination. As mentioned earlier, ancient and Eastern religions have tended to incorporate the notions of chaos and unpredictability into their explanations of the spiritual. Artaud, of course, favored ancient and Eastern cultures, religions, and metaphysics highly over those of contemporary Western civilization. The idea of a chaotic sort of determinism also does not appear inconsistent from a perspective informed by chaos theory, which suggests a model for predictability based on an "indeterminate determinism." Essentially, the same phenomena that produce the butterfly effect dictate that even relatively simple, solvable sets of differential equations, through reiteration, defy predictability in practical applications.

Science writers such as Briggs and Peat and Fritjof Capra illuminate the parallels between the world view...
advocated by the new sciences such as chaos theory, quantum mechanics, and relativity and the spiritual perspectives encouraged by the Eastern and ancient religions from which Artaud draws his conception of an indeterminate determinism. In the final analysis, the significance of Artaud's theories from a point of view acquainted with chaos theory owes much to the influence of ancient and Eastern mysticism upon Artaud's thought. Artaud's perspective of part and whole, for example, not only parallels that of chaos theory but also reflects the emphasis upon a universal oneness displayed in Eastern religions, such as Taoism and Buddhism. Similarly, the chaotic moment of psychic upheaval, recognition, and renewal that Artaud proposes as the result of the experience of his theatre mirrors the more chaotic forces of creation found in both Eastern and ancient religions/mythologies--referred to above as the "living whirlwind"--in addition to resonating with chaos theory's notions of order out of chaos and self-organization or emergence. But finally and most significantly, Artaud's assertion that the spiritual facets of the material world may be summoned through the employment of archetypal patterns, and that such patterns may touch the deepest and most essential aspects of the individual spectator, not only displays affinities with the importance of patterns in ancient and Eastern religions, but also with chaos
theory's attention to the patterns of growth and behavior that make up the operation of the universe.

Even though Artaud may have placed a greater priority upon the strict control of the director in the creation of the theatre event for an aficionado of chaos theory to accept completely, the patterns of rhythm and symbol that make up Artaud's stage language, the method through which this language is communicated, and the manner in which it effects/affects the spectator and possibly even changes the world all resonate with the philosophical implications of chaos theory. For the purposes of this study, however, Artaud's notion of a chaotic moment appears even more significant. Although perhaps too mystical to be practical, Artaud's theory of awakening higher levels of both emotional and cognitive understanding in the spectator through psychic shock at least acknowledges the creative power of chaos that Artaud perceived in ancient and Eastern religions and that chaos theory recognizes as scientific fact today.

End Notes

1 Peter Brook states that "Artaud applied is Artaud betrayed" because one may only exercise a portion of his theories at a time, and because it is much easier to train a troupe of actors in Artaud's beliefs than the entire audience that might attend a performance on any given night (54). Artaud would respond by asserting that his theoretical theatre is so essentially universal that, if employed in its totality, the audience could not help but be affected. On the contrary, Artaud also seemed to acknowledge this problem when, given the opportunity to describe his ideal audience, he stated: "First of all this theater must exist" (76).
Artaud would probably prefer not to define the unconscious at all—except in terms of his view of a collective unconscious—for he denied the validity of psychology and psychiatry (Barber 8-9). His view of the unconscious must, however, owe something to Freud because of his association with the surrealists. As Esslin states:

A great deal of Surrealist ideology was based on Freudian concepts and Artaud was clearly influenced by Freud, in particular the Interpretation of Dreams. It was Freud who had indicated how language in dream is transposed into images which can then be read like picture-writing, hieroglyphs. (80-81)

Eric Sellin describes Artaud’s "double" as a combination of Jarry's "mirror-play" and Plato's shadows-in-the-cavern analogy (94).

Artaud states that Western culture's failure to produce new myths results from advances in science, which have robbed nature of its mysteries, and the inability of Western religion to adapt to cultural change.

Artaud was apparently unaware of the work of Saussure (Hayman 80), which was certainly fortunate for Artaud, as the two advocated precisely opposite relationships between signified and signifier. Saussure emphasized the subjectivity of the sign, while Artaud called for a return to a primitive form of language where the sign was not only objective, but was the thing it represented—at both poles of the signified-signifier relationship. Artaud distrusted abstract thought, and therefore wanted to remove the "meta" quality from language; in Artaud's ideal language, the word "chair" would not be recognized as a "word," but as an actual chair.

Artaud includes a short essay on the Marx Brothers near the end of The Theater and Its Double to illustrate his ideas concerning the anarchic qualities of comedy.

See Day 148.

Artaud blames "Shakespeare and his imitators" for establishing the dichotomy between art and life. By playing an essential, even seminal, role in the development of psychological drama, which deals with the personal problems (such as love or money) of the characters rather than universal ideas and images, Artaud believes that Shakespeare sapped the stage of its essential power to shake the spectator to the very core of his/her own being (76-77).
9 See Esslin 91-93.

10 Artaud calls for new technologies in lighting to produce this effect, as well as new lighting instruments capable of "spreading the light in waves, in sheets, in fusillades of fiery arrows" (95).

11 Martin Esslin states that Jean-Louis Barrault could demonstrate this technique and lauds the results as "spectacular" (87).

12 In another translation: "ideas, when they are effective, generate their own energy" (Works 60-61). This implies that the "power" of the idea may also emerge in a manner akin to self-organization.

13 Alternate translation: "theatre teaches us just how useless action is since once it is done it is over" (Works 63). In either translation, the emphasis is on learning the uselessness of the action.

14 As Briggs and Peat point out, the trapped thought patterns may be described as behaving like limit cycles around a point attractor.

15 Admittedly, one may question the appropriateness of the employment of the word "understating" in this instance, for Artaud repeatedly stresses the more universal, nonviolent sense with which he employs the word "cruelty." On the other hand, however, one must also admit Artaud's frequent references to acts of bloody violence as a means of shocking the psychic senses of the spectator as evidence that his deemphasis of the more violent connotations of the word "cruelty" is actually a campaign to divert the criticism of those who find stage violence repulsive. Support of this latter view of Artaud's employment of the word "cruelty" may be found in his appreciation of bloody plays, such as Ford's 'Tis Pity She's a Whore and Büchner's Woyzeck.

16 According to Greene, Artaud's mistrust of and feelings of helplessness in the face of his own free will (despite a professed desire for self-determination) contributed to a personal need to relinquish control of his fate to universal forces (136-137).

17 Briggs and Peat find self-similar patterns in: the convoluted and interwoven figures of Bronze Age Celtic art, the complex designs of a Shang ritual vessel, visual motifs from the West Coast American Indians, myths of mazes and labyrinths, the iterative language games of children or the chant patterns of so-called "primitive" peoples.
Briggs and Peat then make a comment that would certainly draw Artaud's sympathies: "The regular harmonies of classical Western art become almost an aberration set beside these forms" (110).
Chapter Six: Conclusions and Implications

The respective theoretical writings of the four figures discussed thus far in this study each display attempts to describe some sort of an ineffable, chaotic moment involving theatrical experience and/or creativity. This point alone brings no new insight to the works of these theorists. When examined through a framework of chaos theory, however, such emphasis on these moments reveals the significant--even central--roles they play in the theorists' accounts of the creation and experience of the theatre event. In this light, the traditional distinctions between the theories of these four individuals collapse, revealing underlying commonalities in their analyses of both the processes and effects of theatrical art.

Of course, the most prominent commonality lies in the appeal to the intangible, the indication of the ineffable exhibited in the works of each of the theorists. This study has described the intangible and ineffable in each of the works examined in terms of a "chaotic moment," an instance of creative chaos from which a new level of order emerges. In Aristotle's Poetics, this chaotic moment manifests itself in his term "catharsis," which clarifies the pitiful and fearful incidents of the action of the drama, both in the text itself as well as in the consciousness of the reader/spectator. The impact of Aristotle's catharsis upon the text and the audience
contributes to a cognitive "eureka" effect concerning the mimesis, without diminishing the emotional effectiveness of the pathos.

John Dryden appeals to an ineffable chaotic moment in his "Essay of Dramatic Poesy" through the inclusion of the descriptive term "lively" in his definition of a play. For Dryden, this term describes a wide range of pleasure-giving advantages that may be found in modern (relative to Dryden) English plays, but which Ancient and French plays generally lack. This range includes simple, concrete notions such as "variety," as well as more subjective, intangible concepts such as "passion." The unifying element of the term "lively" works in opposition to the (somewhat) equally significant term "just," which Dryden uses to describe the aesthetics of French neoclassicism. Dryden, therefore, finds his chaotic moment in the complex and often numerous consequences of breaking the "rules."

The other two theorists discussed in this study, Coleridge and Artaud, do not "appeal" to the ineffable in their theoretical writings; rather, they include it as an obviously central aspect of their theories. Samuel Taylor Coleridge, for example, includes the direct participation of the spiritual realm in his creative/aesthetic theory. For Coleridge, "truth" lies in the supersensuous essence of the material world. For an artist to represent anything truthfully, therefore, he/she must possess a heightened ability to perceive this essence; Coleridge
employs the term "imagination" in reference to this ability. Coleridge believes that the unconscious mind offers the least resistance to the imagination's reception of spiritual reality. Coleridge's chaotic moment thus lies in the spontaneous operations of the human imagination during states of relative mental passivity, the latter of which Coleridge describes as ranging from the effects of passion to literal dream states.

Antonin Artaud also highlights the spiritual realm as a central element of his appeal to an intangible, chaotic moment in his work, The Theater and Its Double. For Artaud, the unconscious likewise plays a crucial role in accessing the supersensuous, but through forced activity, rather than voluntary passivity. Artaud posits that the proper theatre experience should shock the unconscious psyche of the spectator into an awareness (more emotional than intellectual, but nevertheless cognitive) of the individual's separation from ideal spiritual unity with the cosmos. Artaud's chaotic moment, therefore, lies in the instant of disturbance in the spectator's mind as a result of this psychic assault.

Although the common notion of an ineffable, chaotic moment central to their theories of theatrical creativity and/or experience is described differently by each of the four theorists, their explanations share several meaningful similarities. For example, according to chaos theory, the sorts of chaotic moments detailed in this
study arise in the continuous, interactive boundary regions between order and disorder. The chaotic moments discovered in each of the four creative/aesthetic theories examined also involve the interaction of order and disorder. Through a framework of chaos theory, Aristotle's catharsis may be seen to emerge within the tragedy as a result of the interaction of the more chaotic, emotional pathos and the more orderly, intellectual arrangement/progression of the mimesis. Similarly, Dryden states that the best drama emphasizes a balance and interaction between his binary terms "just" and "lively." Coleridge demands the reconciliation of a number of so-called "opposites" in the creation and reception of dramatic art, each paralleling chaos theory's relationship of order and disorder: form/passion, matter/spirit, real/ideal, conscious/unconscious, thought/feeling, mental activity/passivity, and--most notably in his criticism of Shakespeare--judgement/genius. Artaud also sets up interactive systems of the material and the spiritual, the real and the ideal, dictating that, much as in a religious ceremony, only the most meticulously ordered performances may directly relate to the deepest innate human feelings and instincts, ultimately calling forth the chaotic experience of spiritual fruition.

In this respect, Artaud's theory differs from those of Aristotle, Dryden, and Coleridge in that he devalues
the dramatic text, instead placing all of the power of theatrical art in the performance event. Where Aristotle, Dryden, and Coleridge each emphasize the playwright's attention to the interaction of pathos and mimesis, justness and liveliness, and form and passion, respectively, Artaud stresses only the role of the director as the total creative artist. The significance of this difference lies in Artaud's greater appreciation of the evanescent qualities of live performance--the very qualities Coleridge despises--in which Artaud finds a superior source of the intangible elements that inform his theorization of a chaotic moment.

Whether deriving from the interaction of orderly and disorderly elements in the text, the performance, or both, the chaotic moments described in each of the above theories give rise to similar creative/aesthetic phenomena that resonate with the manner in which chaos theory models the performance of complex systems. According to chaos theory, chaos may be discovered underlying simple, apparently ordered systems, and order may be found lurking beneath systems that appear chaotic on the surface. Furthermore, new levels of order often emerge spontaneously from the chaotic moments that lie on the cusps of interaction between order and disorder in such systems. This self-organization may be viewed as a result of Aristotle's catharsis in the clarification of the incidents of action, which constitutes a new level of
order in the understanding of the reader/spectator, as well as in the clarity of the ordering of the action within the text itself. Similarly, Dryden's interaction of the just and lively aspects of a text or performance produce a heightening of the theatrical art which may be viewed as new level of order concerning what Dryden perceives as the artistic merit of the work. For Coleridge, self-organization occurs as a result of the spontaneity that lies between the active and passive portions of the human mind; such spontaneity produces a new level of order of organic unity in the work of art, which Coleridge recognizes as the epitome of his definition of beauty. Artaud's theories offer a plethora of instances of self-organization. One example of a new level of order may be observed in the unity produced by the director in the composition of the overall performance event from the various and disparate production elements. A new level of spiritual/emotional order emerges in the mind/being of the spectator as well as a result of the psychic shock initiated by the intensity of the performance. Artaud even predicts that a new level of social order will arise in civilization as a whole as a result of the psychic healing of theatre audiences.

Each of these theoretical examples of self-organization also bear affinities with Arthur Koestler's theories of cognition and creativity, as interpreted through a framework of chaos theory by Briggs and Peat.
Koestler states that the mind often becomes trapped within an incorrect frame or plane of reference when attempting to find the solution to a problem, only to discover the solution through an "eureka" effect after some change in context leads the mind to wander accidentally into the correct reference plane. Briggs and Peat compare the depiction of a trapping plane of reference to a point attractor; escaping from the limiting patterns of thought of the point attractor requires a chaotic moment that leads to the self-organization of new levels of thought on a different reference plane. Under this theory, the most talented artists are those who command the greatest ability to freely and rapidly shift among such reference planes.

Aristotle presents such a view of the playwright when he emphasizes the balanced employment of intellectual and affective mental activities in the creation of the dramatic text. This balance results from the addition of the more nonlinear, emotional responses of the mind to those responsible for constructing the linear, formal elements of the text, thus enhancing the playwright's abilities to shift planes of reference. The pathos must certainly play a similar role in the mind of the tragic spectator as a trigger for the cathartic clarification of the incidents of action. For Dryden, Koestler's theories explain the "natural" liveliness of Shakespeare's plays, as Dryden would certainly agree that Shakespeare was more
attuned to the ineffable, chaotic moments of playwriting. In addition, the perception of the artistic heightening in the mind of the spectator must also involve shifts in reference planes. Coleridge's creative genius also employs the heightened ability to shift planes of reference; Coleridge equates this ability to a proficiency for accessing the true reality of the realm of the supersensuous through the employment of the imagination, which the audience may glimpse as well through the communication of the insight of the artist via the work of art. In Artaud's theories, the unsettling of the spectator's mind/being through psychic assault would be more than sufficient to produce the shift in reference frames described by Koestler; the spiritual realizations called for by Artaud would lie in wait for the audience on one of these new planes of reference.

Another point of comparison may now be constructed between the theories of these four critical figures. Aristotle, Dryden, and Coleridge each advocate an intellectual brand of pleasure as an integral part of the audience's experience of the chaotic moments associated with clarification, heightening, and spiritual insight, respectively. This intellectual pleasure manifests itself through the cognitive aspects of Aristotle's catharsis, which Aristotle associates with what he calls the inherent human pleasure of learning. For Dryden, the "delight" and "instruction" of his definition of a play interact through
a correspondence with the interaction of the "lively" and the "just," thus implying the existence of a cognitive aspect to his notion of audience pleasure. On the most basic level, this cognitive pleasure is represented by Dryden's fundamental acceptance of the neoclassical rules, but one might interpret Dryden's vague reference to "human nature" as suggesting a more profound degree of realization and understanding in the spectator than a neoclassically realistic depiction of the action would imply alone. Coleridge's ultimate goal for the experience of the audience involves an intellectual pleasure that results from an interactive balance between the employment of active (conscious) and passive (unconscious) mental faculties; this balance may be accomplished through the stimulation of the imagination of the spectator. Artaud, of course, finds no use for intellectual pleasure in his aesthetic theory but does refer to a kind of cognitive realization, albeit painful, that results from the psychic/emotional assault that the theatre event performs upon the spectator's being, ultimately changing the way the audience thinks about themselves and their relationships to society and the world; ironically, the intellect is the final affective realm in Artaud's theory.

Each of the four theorists, therefore, discerns a similar sort of cognitive self-organization in the minds of the audience as a result of the experience of theatrical art. These cognitive experiences interact with
emotional/instinctual experiences, even if the feelings associated with the latter may not always be described as pleasurable. Of course, the interaction of the intellectual and emotional facets of the human mind/experience parallels the interactive, continuous relationship of order and disorder advocated by chaos theory. The philosophical notion of an indeterminate determinism serves as a significant fundamental assumption with respect to this relationship, for even simple and so-called "deterministic" mathematical systems may exhibit unpredictability because of the butterfly effect.

A balance of the unpredictable and the determinate is also evident in each of the four major theories discussed in this study, to varying degrees. For example, Aristotle states in his discussion of tragic plot that chance occurrences provide the greatest pleasure when they appear to have been brought about by design; he also asserts that improbable events should occur often enough so as to make them seem probable. Dryden likewise alludes to an indeterminate determinism when he emphasizes that "accidents" which occur in the plot should be drawn deliberately by the hand of the playwright. Coleridge incorporates unpredictability into his system of aesthetics through his appreciation of the indeterminate quality of natural phenomena such as the weather, while simultaneously acknowledging the underlying order of his vision of the spiritual essence of nature. For Artaud,
the order of spiritual unity involves an inherent unpredictability, evident in his references to the chaotic vortex of creation found in ancient and Eastern mythologies.

The notion of an indeterminate determinism also informs chaos theory's profoundly holistic view of the relationship of part to whole, in which each part is determined by its relationship to the whole, yet maintains its individuality through particular differences. This idea also relates to chaos theory's emphasis upon qualitative knowledge through similar "patterns," rather than the precise, predictable quantitative knowledge of traditional reductionist science. An aesthetic of similar patterns and a holistic relationship of part to whole are each exhibited in the theories examined by this study, with the most prominent examples evident in Dryden's "labyrinth of design," Coleridge's "multëity in unity," and Artaud's suggestions concerning the theatrical employment of myths, symbols, archetypes, hieroglyphs, and rhythms of light, sound, movement, and even breathing.

The emphasis upon similar patterns and a holistic relationship between part and whole displayed in the writings of each of the four theorists discussed in this study might certainly be described by some as exhibiting merely analogous, and at the worst, accidental resemblances to these same concepts as described by the principles of chaos theory. Surely, the same may be said
as well of the other parallels with chaos theory presented here: an indeterminate determinism, an interactive balance of order and disorder, a continuous view of cognitive and emotional mental faculties/responses, the butterfly effect, self organization, and the notion of a chaotic moment, among others. According to chaos theory, however, most of nature, including human nature, behaves (and always has behaved) according to these fundamental tenets. From this perspective, one should not be surprised to discover hints of chaos theory in the creative and aesthetic theories examined here; such hints might arise from the theorists' instinctual attempts to explain phenomena which they do not fully understand themselves. If one counters that those aspects of the theoretical systems that have been compared with chaos theory may also be explained by the cultural constructedness of the overall belief structures of the theorists or of the theorists' respective times, then all the better; if the theorists' instincts match either their own carefully reasoned arguments or the accepted beliefs of their day, then each theorist should be even more comfortable expressing their perception of the indications of chaos theory as framed by their own cultural/societal influences.

At this point, the skeptic might certainly ask: Why has the author only addressed critical theories of the past? Wouldn't contemporary theories exhibit the greatest...
affinities for chaos theory? With respect to these questions, this study has not pretended to search for the creative or aesthetic theory with the largest number of or even most significant parallels to chaos theory; rather, this study has merely sought to discover if chaos theory may be employed to cast a new light on these theories and to seek the particular ideas from these theories that prove valuable to a theoretical structure based on the philosophical implications of chaos theory. With this in mind, an abbreviated examination of the dominant contemporary critical theory known as "poststructuralism" and its related aesthetic theory, "postmodernism," will be undertaken to explore the relationship of these contemporary theories to chaos theory. The theoretical ideas of Richard Foreman, a theatre artist often associated with the postmodern movement, will be investigated as a somewhat restricted case study.

Poststructuralism, in its most essential guise, may be interpreted as a denial of the existence of absolute truth, whether it be the absolute truth of metaphysics, presence, language, authorship, knowledge, history, or the subject. Theorists such as Jacques Derrida, Roland Barthes, Michel Foucault, Jacques Lacan, and numerous others, have "decentered" the first principles of each of the above-mentioned notions by pointing out their constructedness, thereby "deconstructing" the entire foundation of meaning upon which each is based. Derrida's
"trace" of that which is not itself therefore grows, particularly as amplified through the relativity of Barthes' "text," to a challenging of all inherent or original intent; Derrida's différencé likewise expands into a gulf of meaningless void, "always already" eating away at the heart of every presumption of unity and at every attempt to communicate.

Postmodernism, the artistic/stylistic parallel to poststructuralism, therefore advocates an aesthetic of fracture, an aversion to the concept of the autonomous character, and a lack of narrative closure. Disregarding and even devaluing the notion of artistic unity, postmodern artists may and do borrow indiscriminately from various and often contradictory artistic/historical periods, forms, and styles. Such a hodgepodge approach, governed by no absolute value system, effectively dissolves the traditional boundaries between "high" and "popular" art/culture. Examples of the postmodernism in theatrical art include the staged deconstruction of traditional dramatic texts, the depiction of characters lacking consistency or identifiable traits, and the employment of technical elements such as lighting, sound, props, set pieces, slides, film, etc., as autonomous production elements with significance equal to the bodies and voices of the actors; the resulting production may be described ideally as a barrage of infinitely ambiguous signs conveying infinite/no meaning. Essentially, the
postmodern theatre artist attempts to frustrate or subvert traditional audience expectations at every possible turn.

In her work, *The Death of Character*, Elinor Fuchs presents a formidable study of postmodernism in theatre, laden with poststructuralist theory to an extent and success uncommon in works of such wide scope. One of her fundamental premises involves the application of the poststructuralist decentering/deconstruction of the subject to the postmodern theatrical character; Fuchs asserts that as poststructuralism strips individuals of the sense of an autonomous, unified self, then the autonomous, unified stage character also becomes meaningless. Fuchs describes the human figure remaining on the stage as a protean, multi-masked creature who represents only one aspect of the total production she describes in one chapter of her book as a "landscape stage": "A new kind of pastoral, one appropriate to an ecological age when the human figure is no longer the measure of all things" (12).

Fuchs names playwright/director/designer Richard Foreman as one of several contemporary theatre artists whose work reflects her conception of the "landscape stage" because of his emphasis upon stage environment above and in place of the narrative presentation of psychological characterizations. Fuchs describes Foreman's characters as "more like characterological objects in a field crowded with things, all of which are
infused with a deep, mysterious animation" (102). In this respect, Fuchs aligns Foreman with postmodernism for his deconstruction of the subject through his resistance to writing/staging psychologically deep characters. Foreman therefore presents the "traces" of characters, rather than attempting or pretending to present the "presence" of real individuals through the actors' interpretation of characterizations.

Fuchs, of course, asserts that Foreman deconstructs theatrical presence through several other aspects of his staging as well. Most obviously, Foreman frustrates audience expectations through non-narrative philosophical-poetical dialogue, the employment of bizarre, abstract props, set pieces, and stage decorations (such as the famous "Foreman strings"), placards and projections, blinding flashes of light, and strange sounds and music. According to Fuchs, such practices deny presence by forcing the audience to examine their own modes of perception, as well as the uselessness of their attempts to make meaning out of the endless flow of mostly empty signifiers. Fuchs especially emphasizes the techniques by which Foreman calls attention to the constructedness of language and of the dramatic text itself. For example, Fuchs mentions the banners, legends, and projections containing words or phrases that may or may not be related to the rest of the performance, as well as the reflexivity of Foreman's dialogue, including one instance of a
character writing the text of the play on a blackboard throughout the performance. Fuchs seems particularly impressed, however, by what she refers to as a "kabbalistic" influence on Foreman's productions, thus adding a definite level of mysticism to her criticism that appears out of place in a postmodern analysis.

By "kabbalistic," Fuchs refers to the hints she perceives within Foreman's productions of his admitted attraction to Cabala. The most obvious hints arise in the form of Hebrew letters, which Foreman employs mysteriously in his sets with no apparent attempts at meaning or relation to the other production elements. Fuchs interprets the appearance of the scenic depictions of these letters as a conflicted double-presentation of the literal stagings of the communicative failures of language and the possibilities of a higher form of language--a "pure cosmic notation." According to Fuchs: "The Hebrew letters strain to connect the entire theater event with the great mystery of signs and codes in the universe" (81).

In her analysis of Foreman's play Lava, Fuchs discovers such mysticism in the offstage "Voice," played by Foreman himself and comprising almost three-fourths of the lines of the play. Foreman refers to the relationship of the Voice to Lava's other characters as "their author, their director, their boss--even the voice of God" (310). Fuchs also emphasizes the mystical qualities of Foreman's
employment of an electronic "hum" and of a tape loop of random spoken numbers, each played over the production's sound system. Foreman considered the "hum" to be related to something "primal" that precedes language, while the numbers were Foreman's manner of hinting at a "pure" form of language, more "Platonic" than practical language. For Fuchs, each of these examples suggests traces of the mystical, the metaphysical, or the religious in Lava, but Fuchs states explicitly that "there is never an expectation of realizing the mystery, or becoming present enough . . . to make God present" (84).

Fuchs' incorporation of mysticism into poststructuralist theory during her discussion of Foreman's theatre is not inconsistent with the rest of her book. In her introduction, Fuchs compares the Buddhist notion of anatta, or "no-self," with the poststructuralist denial of the continuous, autonomous self. Although such a comparison works on many levels, it fails at its very core when one considers that Buddhists believe in a transcendent reality that lies beneath the impermanence of all things. For the poststructuralist, on the other hand, reality lies in social/linguistic constructiveness; peeling away the layers of meaning or layers of the self under poststructuralism is equivalent to peeling an onion—nothing lies at the center. Perhaps Fuchs was misled by the Buddhist references to the transcendent reality as a "void" or "emptiness." According to Eastern thought,
however, this "void" corresponds more to the chaotic whirlwind of creation discussed with respect to Artaud's theories (in Chapter Five) than an absolute nothingness in the sense of a vacuum. As stated by Fritjof Capra in his discussion of Buddhism: "Reality, or Emptiness, itself is not a state of mere nothingness, but is the very source of all life and the essence of all forms" (97).

Returning to Fuchs' discussion of Foreman, one encounters a similar inconsistency in Fuchs' references to Foreman's mysticism within her overall framework of poststructuralist analysis. Fuchs quotes Foreman, stating that "in Foreman's cosmogony, God is in the 'cracks in our . . . systems of discourse,' but will never pass through them" (84). But by placing something in the cracks of Derrida's différance, whether it may pass through or not, both Fuchs and Foreman allow the existence of a kind of truth, a thread linking the signifier and the signified, or--with respect to the decentered individual--a soup of selfness, a center that is everywhere, holding the fragments of being together. Thus Fuchs "decenters" poststructuralism's notion of infinite/no meaning by allowing a "trace" of truth.

Fuchs' interpretation of Foreman's theatre matches the latter's own statements concerning poststructuralism and his theatrical art. In the passage immediately following the above-mentioned quote that Fuchs takes from
Foreman's introduction to *Lava* (regarding the "cracks" in the "discourse"), Foreman states:

> There are writers who despair that language is incapable of expressing the true self, and that a gap exists between the self and the words that come, but for me that gap is the field of all creativity—it's an ecstatic field rather than a field of despair. It's the field of the unconscious, of God; it's the unfathomable from which everything pours forth. (315)

In the passages that follow the above, Foreman credits art for its ability to allow glimpses of this unfathomable, invisible essence that lies in the "gaps." He then states, however, that the concretization of this essence into the work of art necessarily kills the vitality of the impulse; representation of the gap makes it a dead thing ("the work of art") rather than a living thing ("the impulse") (315-316).

Foreman and Fuchs each refer to a kind of mystical essence that is both there and not there (present and absent) in Foreman's theatrical art. They each witness something through experience and then try to explain it away through theory. Perhaps the contradictions and confusion inherent in their discussions arise not as a result of flaws in observations or experience, but rather, from the inabilities of their theory to adequately describe the essential nature of such observations and experiences. Furthermore, perhaps chaos theory offers an alternative approach that incorporates experience as well.
as theory, instinctual presence as well as conceptual absence, into the discussion of Foreman's work.

From a perspective of chaos theory, the fundamental (and perhaps only) failure of poststructuralism lies in the latter's denial of the existence of a foundation upon which the structures of language and culture may stand. Without the possibility of exact meaning, the logic of poststructuralism arrives at the dead end of absolute meaninglessness. But as Nancy Easterlin and Barbara Riebling state in their introduction to *After Poststructuralism*: "even though we must admit we cannot know *everything*, that is not the same as asserting that we cannot know *anything*" (2).

Modern sciences such as chaos theory and quantum mechanics acknowledge the limitations of the reductionist demand for precise knowledge. Briggs and Peat call attention to Kurt Gödel's proof that "important logical systems like arithmetic and algebra will always contain statements that are true but which cannot be derived from a fixed set of axioms" (75). Similarly, quantum mechanics dictates that information concerning the most fundamental building blocks of matter may not be known with certainty. Briggs and Peat even go so far as to assert that these ideas concerning the limitations of knowledge are not new, quoting Aristotle from his *Nichomachian Ethics*: "It is the mark of an educated mind to rest satisfied with the degree of precision that the nature of the subject admits, and
not to seek exactness when only an approximation is possible" (76).

Chaos theory challenges traditional reductionist ideas about knowledge through concepts such as the butterfly effect. The fact that a miniscule fluctuation or error in measurement may become magnified through feedback completely stifles the predictability of the future state of an unstable, aperiodic system, thus severely limiting the kinds of precise knowledge that one may obtain about the system. But instead of denying that any knowledge may be obtained, chaos theory offers new, qualitative methods of understanding the operation of the system in terms of patterns and similarities that in turn correspond to new ways of thinking about what constitutes meaningful knowledge and truth. When viewed through a framework of chaos theory, therefore, the poststructuralist despair in the face of infinite meaning becomes insignificant; even though precise truth may be impossible to obtain, certain patterns of meaning may prove more valuable than others for the purposes of interpretation.

Chaos theory also asserts that new levels of order emerge from the interactive boundary regions between order and disorder. From this perspective, the poststructuralist notion of the "gap" collapses into a continuum between the order of truth and chaos of infinite traces of ambiguity; meaning emerges from the interaction
between the two. This does not throw deconstruction out
the window. Through self-similarity, certain patterns of
meaning will assert themselves as being more significant
to the system than others. This is why a deconstruction
of a Tennessee Williams play from a perspective of race
relations seems more significant than one informed by
traces of crop rotation techniques. Removing the
nihilistic "gap" from the poststructuralist system of
semiotics makes such a value judgement possible.

Chaos theory may therefore be employed to account for
the mysticism that arises in Foreman's ideas concerning
his theatrical art, as well as in Fuchs' poststructuralist
interpretation of Foreman's work. The traces of mysticism
that Fuchs calls attention to yet denies presence actually
are present in the complex interaction of the concrete
signifier and the ambiguous signified. Foreman states as
much when he refers to "a third possibility between logic
and randomness. It's something between narrative
development and pure chance. It's the cracks in reality
that can't be mapped, the cracks in our normal, inherited
systems of discourse" (315). Foreman, of course, takes
the notion of cracks from poststructuralism; as mentioned
earlier, he finds the source of creativity in these
cracks, or "gaps." Chaos theory suggests that instead of
"cracks" or "gaps," Foreman is actually witnessing
"overlaps": chaotic moments of interaction between order
and disorder, truth and ambiguity. The traces of presence
that both Fuchs and Foreman so clearly want to find in Foreman's theatre emerge from these interactions, rather than falling through the poststructuralist "gaps."

In Foreman's theory concerning his theatrical art, these traces of presence are most clearly articulated in the altered modes of perception that Foreman wishes to instill in his audience by frustrating their expectations. Through a framework of chaos theory, such frustrations may, of course, be viewed as chaotic moments. The altered states of perception that Foreman advocates as a result of his ideal spectator experience would therefore emerge from the chaotic moments of frustrated expectation in a manner akin to self-organization. But what is Foreman's ideal spectator experience? What are the results of an altered mode of perception during an ideal Foreman production?

Foreman states that the experience he attempts to help his audience attain is partially based on an "emotion of the mind" he claimed to have experienced while reading Ortega y Gasset. Foreman describes this experience as simultaneously intellectual and emotional, thus informing the name of his company: the Ontological-Hysteric Theatre (Davy 8). On at least one level, therefore, Foreman's ideal theoretical spectator experience may be compared with the notions of "intellectual pleasure" found in Aristotle's, Dryden's, and Coleridge's theories. The cognitive aspects of spectator experience found in the writings of all four of the theorists examined in this
study also appears in Foreman's theoretical theatre, for he hopes that his productions teach the audience to question their own viewing habits. As Foreman himself states in his book *Unbalancing Acts*:

For instance, in *Hotel China* there were ten little wooden stands on the stage, and each had a rock placed on it which was covered by a handkerchief. At one point, an actor removed the handkerchiefs, revealing the rocks for the first time. As the audience was watching this, a legend was projected on the back of the stage that read, 'Do not pay attention to the rocks, pay attention to the color of the stands.' I wanted to say to the audience, Be aware that you can make choices in this theatrical situation, unlike normal theatre where everything is done to manipulate you into watching, thinking, and feeling the one thing the play's creator wants you to watch, think, and feel. (56-57)

Foreman's notion of the cognitive experience that his theatre should invoke is simply one meta-level deeper than Aristotle's cognitive approach to catharsis. Where Aristotle wants the viewer to ask questions about the artistic representation of "nature" and learn that "this is a picture of so and so," Foreman wants the viewer to ask questions about his/her perception of the representations and learn about how and why the viewer perceives that "this is a picture of so and so," as well as what other perceptions may result from the experience of the performance.

Each of the theories of the figures examined by this study deal with questions of the representation of what they perceive as "nature" on one level or another—even if the perception concerns the representation of...
spiritually/psychically primal symbols and archetypes, as in the case of Artaud's theatre, or if the performance is designed to induce alternate modes of perception, as in Foreman's theatre. Because artists look to what they perceive as being "nature," including "human nature," for inspiration for their works of art, theorists/critics must also look to "nature" in their attempts to explain the creation and experience of art.

In this respect, chaos theory promises to offer a common foundation for speaking about the creation and reception of art. Even though each artist, theorist, and critic will experience a different perception of "nature," they will nevertheless observe the same similar patterns and chaotic moments of creation at work underneath it all. The same will therefore be true in their creation and perception of art, thus overcoming the poststructuralist lack of foundation and the postmodern impasse to meaning of any kind.

In looking for the most essential aspects of "nature," and relating it to the most essential aspects of art, theorists cannot help but see hints of chaos theory in the operation of the universe. Because they do not have the philosophical tools and vocabulary to adequately describe those aspects of nature that are informed by chaos theory, theorists often resort to the intangible in their attempts to explain what they perceive both in art and nature. This study has attempted to employ chaos
theory as a method of illuminating the most essential concepts presented by the theorists examined in order to discover if any new insight into their theories may be provided as a result of the benefits of the hindsight of chaos theory. Along the way, this study sought to discover which aspects of the theories work and which aspects offer little and/or no merit when viewed through a framework of chaos theory, with the hopes of gleaning information that may assist with the potential creation of a "poetics of chaos theory" in future studies.

End Notes

1 Fuchs employs the spelling, "Kabbalah," but for consistency the spelling employed in Chapter Five, "Cabala," will be used here, except when quoted from Fuchs.

2 Fuchs, of course, finds similarities in the non-foundational nature of both systems. Poststructuralism, however, emphasizes a lack of foundation based on disparateness, while the Buddhist lack of foundation is rooted in connectedness. The poststructuralist self is everywhere, but fragmented from everything else; the Buddhist self is also everywhere, but continuous and whole with everything else. One might contend, however, that an absolute system like poststructuralism may not be discussed without the acknowledgement of its absolute opposite, mysticism.
Bibliography


Morrow, Laura and Edward Morrow. "Humpty-Dumpty Lives! Complexity Theory as an Alternative to the Omelet


Vita

Robert E. Brooks graduated from Wilson High School in Wilson, Kansas in 1985. He has since received a Bachelor of Science degree in chemical engineering from Kansas State University (1990) and a Master of Arts degree in speech/theatre from Kansas State University (1993). While attending Louisiana State University as a candidate for the Doctor of Philosophy degree, he has presented papers at the Mid-America Theatre Conference (1995), the University of Florida Comparative Drama Conference (1995), the Association for Theatre in Higher Education Conference (1995), and the American Society for Theatre Research Conference (1997). His essays will soon be published in two biographical encyclopedias: the American National Biography and Notable Gays and Lesbians in American Theater History. On June 5, 1998, he married Shainna Lynne Roach. In the near future, he will present papers at the Association for Theatre in Higher Education Conference and the South Central Modern Languages Association Conference. He has also agreed to write a biographical essay on the career of Jack Gelber for the Dictionary of Literary Biography. He intends to graduate from Louisiana State University with the Doctor of Philosophy degree in theatre on August 7, 1998. He has accepted a position as Instructor of Theatre Arts at Eastern Illinois University, to begin August 20, 1998.
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