Oz, Jurassic Park, The Matrix: Using Film Contexts to Understand Chaos Theory and Organizational Leadership

By

JoAnn Danelo Barbour, Ph.D.
Associate Professor
Educational Administration and Leadership
Texas Woman’s University

Paper originally presented, in part, at the University Council for Educational Administration, Convention November 11-14, 2004, Kansas City, Missouri

Contact Information:
7529 Cedar Elm Dr.
Irving, Texas  75063
Fax Number:  940-898-2209
profbarbour@mindspring.com
Ox, Jurassic Park, The Matrix: Using Film Contexts to Understand Chaos Theory and Organizational Leadership

By
JoAnn Danelo Barbour, Ph.D.
Texas Woman’s University

A Paper Presented at the
University Council for Educational Administration, Convention
November 11-14, 2004, Kansas City, Missouri

Introduction

The 50th anniversary of the University Council for Educational Administration correlates not only with the landmark decision Brown v. Board of Education in 1954, it marks also fifty years of emerging postmodern theoretical thought in leadership theory. Moving out of the shadows of traditional leadership theories such as trait, behavioral and situational theories, the postmodern era has brought several emerging theories of leadership in organizations. Leaders are studied from theoretical perspectives such as transactional and transformational as influential theories, cognitive, critical (including politics within a hegemonic framework), cultural, chaos and complexity theories. A challenge facing educators is to help future leaders understand links between postmodern leadership theory and the practice of leading in schools. The use of film in the graduate “classroom” becomes a pedagogical bridge to link postmodern theories of leadership with postmodern practices of leadership. The use of film to develop understanding of the practices of leaders in chaotic or chaordic environments will be the focus of this scholar. In this essay, I will discuss the use of film, theoretical underpinnings from critical pedagogy and chaos theory, specifications and expectations for the film analysis, movie choices and rationale, and evaluation.
Theoretical Underpinnings

Proponents of various leadership theories have often focused on traits (Bennis, 1989; Bennis & Nanus, 2003; Jinkins & Jinkins, 1998), behaviors (Gardner, J., 1990; Kotter, 1998; Mintzberg, 1998; Zaleznick, 1998) and/or situations (Fielder 1967; Mintzberg, 1973, 1998; Vroom & Jago, 1988; Vroom & Yetton, 1973). The postmodern era, however, has brought several emerging theories of leadership in organizations. Leaders are studied from a variety of perspectives including: transactional (Avolio & Bass, 1999; Bass, 1985; Bass & Avolio, 1994), transformational (Bass, 1999; Burns, 1978), cognitive (Gardner, H., 1995), critical (Habermas, 1984; Marcuse, 1964), cultural (Bolman & Deal, 2003; Morgan, 1986; Schein, 1999), chaos and complexity (Gleick, 1987; Lorenz, 1993; Stacey, 1996; Wheatley, 1999).

With the end of the enlightenment era in philosophy, the postmodernists sought to dispel the notion that there is universal objective truth. They began to reject artificially sharp dichotomies and to appreciate the inherent irony and particularity of language and life. Postmodernists began to see multiple realities and questioned traditional absolute truths. Thus, reality, to the postmodernists, is not purely objective, and does not exist independent of the humans who interpret it. Postmodern management theory has as its focus the constructing or resurrecting of stories and voices of excluded, marginalized, and exploited members in modern organizations. Among the theories subsumed under postmodernism are structuralism, semiotics, post-structuralism, and deconstruction. Key theorists, including Baudrillard (1976) and Lyotard (1984), posit the notion that culture is composed of fragments of experiences and images bombarding individuals. The speed and ease of reproduction of these images suggest that they can exist only as images, devoid of depth, coherence, or originality; there is no consideration for the unity of the whole. The postmodern leader, thus, should operate with an understanding that a
more enlightened and empowering leader who has a great understanding of the whole as well as its parts can counter exploitation within the organization. Conversely, there is skeptical postmodernism, where any procedure for fairness and justice has the potential to be exploited into a routine of higher performance expectations, and render any postmodern prescription into a modernist command and control tool.

The critical theorists noted above and anthropologist Bourdieu (1965, 1977) are opposed to closed philosophical systems and pretensions to absolute truth. To address the legitimacy of and potential for changing existing power structures, critical theorists generally hold the view that humans create their history and society, which, they believe, should be a society of free actors that go beyond the tension between, and abolish the opposition to, one’s purposefulness, spontaneity, and rationality, and the results of one’s labor. While offering a critique of other social theories, critical theorists provide tools for seeing anew ideas or processes taken for granted. Oppositional thinking is one of the keys for gaining such insight.

The critical theorists held one notion that oppositional (dialectical) contradictions imposed upon modern human beings by varieties of social organizations often abused formal rationality in order to deny power to classes of citizens. A chief hope to these theorists was that the explanation of the causes of oppression would result in practical efforts to eliminate it. Thus, from the Frankfurt School of Horkheimer, Adorno, Marcuse, and Habermas, scholars began to pay attention to race, class, and gender issues which included issues of power and, as a pedagogy, action research. Deconstructivists, progressing from the critical theorists, sought to deny priority or privilege of any single reading of a text (even if guided by the intentions of its author). They attempted to show that text is incoherent because its own key terms can be understood only in relation to suppressed opposites. They sought to uncover internal conflicts
that tend to undermine (or at least "decenter") supposed significance of any text. For example, the statement "If I may be perfectly candid for a moment" betrays a reluctance—at least in the past and, probably, even in the present case—to do so, and this difference points toward a systematic ambiguity in notions of honesty and truth.

An emerging leadership theory within the critical postmodern perspective is chaos theory, the notion that while events are rarely controlled, within those existing events lie patterns of behavior. From the work of physicists Gleick and Lorenz, chaos theory grounds a postmodern science of management that is ambiguous, at best unpredictable, and hence unknowable to the degree of precision demanded by modern science. Chaos theory is about how very simple things can generate very complex outcomes that could not be guessed by just looking solely at the parts. While the theory predicts that complex nonlinear systems are inherently unpredictable, concurrently, chaos theory insures that often, the way to express such an unpredictable system lies not in exact equations, but in representations of the behavior of a system, that is, to watch a system over time to find the patterns of behavior not immediately seen in the organization. Thus, chaos theory, which many think is about unpredictability, is at the same time about predictability in even the most unstable systems.

Chaos theorists suggest that systems naturally go to more complexity, and as they do so, these systems become more volatile (or susceptible to cataclysmic events) and must expend more energy to maintain that complexity. As they expend more energy, they seek more structure to maintain stability. This trend continues until the system splits, combines with another complex system or falls apart entirely. According to the theory, life is caught in the tension between order and chaos. Too much order, everything becomes the same and there is no room for creativity or anything new. Too much chaos and nothing can last long enough to create anything useful; the
chaos is a jumble that destroys the lot before it can get started. Between order and chaos is found the “edge of chaos,” the point at which there is enough chaos for creativity, but enough order for appropriate patterns to endure. Complexity, also called the “edge of chaos,” is the name given to the emerging field of research that explores systems in which a great many independent agents are interacting with each other in a great many ways. Complexity can occur in natural and man-made systems, and in social structures. There are several principles in complexity theory, but one key principle is the understanding that different parts of complex systems are linked and affect one another in a synergistic manner.

In management science, chaos theorist Wheatley and complexity theorists Lewin (1993), Senge (1990) and Pascale (2000) suggest that as complex systems naturally go to more complexity, the focus of the manager or leader in a chaotic environment becomes one of managing change and the volatility brought by the change. A postmodern organization would include a network of diverse, self-managed, self-controlled teams with many centers of coordination that fold and unfold according to the requirements of the tasks. The teams are organized in a flat design, employees are highly empowered and involved in the job, information is fluid and continuous improvement is emphasized throughout the organization.

The challenges posed by the modern world, symbolized in part by Brown, remind us not only of the emerging body of knowledge or discourse on what leadership actions, styles, theories and approaches are best for any given situation; challenges also exist in communicating to one another the ideas generated by leadership scholars and educators of leaders. Recognition that leadership is knowable as a discipline, learnable as a set of skills, teachable as a body of theoretical knowledge and practices, and doable as a performance of all of these continues to rise. Emerging and traditional theoretical frameworks are the scaffolding upon which practice is
both built and understood in educational administration. One of the problems faced by educators of future school leaders is how to best “teach for understanding” the theoretical underpinnings of the practice of leading schools. English (1995) and Kellner (1991) note that the use of film is a viable pedagogical tool within a critical perspective that can liberate both the student and instructor.

**Pedagogical Underpinnings**

Understanding theory from a scholar-perspective, the theoretician, is one issue, but helping future school administrators understand theory for utilization in a practical sense is another matter altogether. Moving from the traditional lecture method of teaching traditional leadership theory to postmodern pedagogies advancing postmodern theories provides opportunities and challenges for those who prepare leaders in 21st century schools. In light of Brown, those who prepare future school leaders have been forced to rethink their conceptualization of schools and the role of school leaders. From the critical school of thought, then, in the field of education, Freire led the discussion with the watershed publication of *Pedagogy of the Oppressed* in 1970 in which he sought to dispel the traditional student-teacher relationship from teacher-controlled to a dialogic (Marxist dialectical) action between teacher and student (reflection and action), critical thinking, problem-posing rather than problem solving, and teaching for “learning to learn.”

tool within a critical perspective that can be utilized in the classroom. Film can enrich the study of both the leader as actor and the leader in context within leadership and organizational theory. An instructor can provide a forum to explore how one views the world with respect to power relationships, an abstraction turned into a reality, for example, within the shared context of a film. In addition, issues of observation, perceptions, biases, judgments, and values, both manifest and latent, important for a school leader, can also be explored. For purposes of this discussion, therefore, we will focus on the knowledge to be gleaned and applied in the graduate leadership classroom from the concept of chaos and complexity theory applied to the practice of school leadership.

**Rationale for Using Film**

The graduate students in our program are preparing to become school administrators. Many have had careers in other fields; some have led organizations, however, most of our students are teachers who choose to move from the classroom into leadership positions as school administrators. Their backgrounds, as well as experiences with leaders and in leadership, vary. By using film in various assignments, we attempt to create situations in which class members will have a common frame of reference since many of the students have seen most of the films used in any of the assignments. In addition, the films have the commonality in that they are about leaders, some historical, some still living, the context or situations in which leaders lead others, and those being led, or the followers. Most of the films used in class assignments are first-run feature films that can be rented or purchased from local video-rental stores or from the internet and can be viewed either alone or with others. Sometimes the films are shown in class, while at other times the students view the films on their own.
The three films, *The Wizard of Oz*, *Jurassic Park*, and *The Matrix*, are chosen for several reasons. All students have seen at least one of the films; thus they are familiar with the contexts and the nature of the films. The films are rich in chaos and complexity many-layered, thus providing a good deal of data for analysis. Students can choose to go in several directions with their analyses, thus creating meaning and understanding of chaos from individual perspectives. They will be able to gather easily discernible, manifest evidence to prove their contentions, and, for those so inclined, students will be able to gather symbolic and more latent meaning from the films. All three films have leaders, some obvious, some not so obvious, who can be analyzed from a variety of theoretical perspectives discussed in class. Because the leaders have a group of followers, the students are able to analyze the relationship of leaders and followers within the chaotic context. Finally, the films are in such diverse contexts from schools, the land of Oz, a fantasy dinosaur park, and a futuristic urban environment, that the students are pulled away from a familiar environment and forced to look anew at chaotic contexts and that which is contained therein. Then, within the class discussion, post-viewing and post-analysis, the students are thrust back into a schooling context when they are asked to make critical connections between chaos as a theory, chaos within their films and the transfer knowledge for a leader who has to deal with schools in a chaotic environment.

Each semester I encourage suggestions for films not on the assigned list, that is, the three noted in this essay; one semester, for example, we “piloted” *The Wiz*, *Outbreak*, and *Butterfly Effect*. The students conduct their own “pilot study” analysis of their choice film, and after the assignment is completed, they are expected to make a suggestion, with justifications, to add the piloted film to the current list or not add to the list. For purposes of explication, when I first created this course, I began this particular film assignment with *The Wizard of Oz* as the sole film
of analysis. Over time and through student-pilot-testers, we added *Jurassic Park* and *The Matrix*. This is our third semester piloting *Outbreak*, the first semester for piloting *The Wiz* and *Butterfly Effect*. *Outbreak* will probably be added as a full-class choice because the critiques have been most positive.

**Objectives of the “Chaos” Film Assignment**

The objectives of the film assignment fall within the two goals for the course “Introduction to Leadership,” a beginning leadership theory and practice course in a Masters Degree program in educational administration and leadership. The chief goals of the course are to develop an understanding of self and to develop an understanding of leadership and leading through study and practice of several models or theories of leadership. In the semester course, theories are grouped into six categories. The students are assigned readings with follow-up cases, exercises or assignments in the following theories of leadership: trait, behavioral, power and influence (including political, transformative and transactional), cognitive, chaos and situational, and cultural and symbolic. There are two objectives of the “Chaos Film” essay for the student: to demonstrate to the instructor that one understands the elements of chaos present in various community and organizational contexts, and to appreciate the lessons of chaos that can be applied to the chaos of leading schools. Borrowing a page from qualitative research and ethnography, the approach employs the notion of “making the familiar strange and the strange familiar,” (Comaroff and Comaroff, 1992, p. 6), albeit with a twist. The graduate students have a familiarity with schools and schooling, since most have been teaching three to ten or more years before coming to the program, and with the films, since most of the students have seen at least one of the three films chosen for analysis; however, most students need to practice their skills of observation, they do not easily grasp critical theory or chaos theory, and they need help making the application of the
understanding to leading schools, so the “strange” is the application of the theory. In other words, we get the adult learners out of their school cultures, a process known as defamiliarization (Marcus and Fisher, 1986), and juxtaposition them into another’s culture (the context of the film) in order that they can make comparisons about chaos from one context to the other, thus demonstrating understanding of leadership and chaos theory within a critical perspective.

**Detailed Instructions of the Assignment**

The assignment is designed to ascertain what the students have gleaned from their readings on chaos and complexity theory, class activities and discussions. Students are directed to choose one of three films, *The Wizard of Oz*, *Jurassic Park*, or *The Matrix*, reflect upon the ensuing chaos and complexity depicted in the film, and write a reflective analysis. Thus, using chaos and complexity theories, they are to frame a discussion with two questions to guide reflection: What are the elements of “Chaos Theory” present in the film and how are those elements represented? What lessons are contained in the film that can be applied to the chaos of leading schools? In addition, an attempt is made to work within Bloom’s (1956) highest three objectives in his cognitive taxonomy, analysis, synthesis and evaluation, since these cognitive abilities are important transfer skills to the students’ efforts in school leadership.

The students are to write an essay of four to five pages in length, about 1200 to 1500 words. They are reminded of proper conventions of good writing, for example, the essays should include an introduction with a focus or thesis statement, narrative body and conclusion or summary and a cover page. They are reminded of appropriate font size, margins, and pagination. A scoring guide is added to the assignment, with a description of evaluative criteria. The students are encouraged to watch the chosen film as often as needed. They can choose to view the movie either solo or with others, and their submissions can be written either solo or with two
or three classmates. Over the years, I have discovered the fertile, thoughtful reflections that result from viewing the films together, discussing elements of chaos observed in the film, and then attempting to write a group paper. Students have commented that the “Chaos Film” was one of the more difficult, yet richly layered papers they had ever written due to the creative input of extra writers. Their purpose, to analyze what they see and support their contentions with “data,” evidence from the film, is placed within Bloom’s cognitive taxonomy and added to synthesis and evaluation as this instructor assesses the final essays. This method has the added bonus of introducing our fledging masters candidates to qualitative data collecting: how to collect observational data, how to decide what constitutes data, creating themes, and so on.

Criteria for Grading the Film Assignment

The students are given a scoring guide, a matrix table, with “25 Points” the possible number of points to be earned for the assignment. The scoring guide includes the following categories on its vertical axis: 1. The analysis was formatted appropriately and was submitted on time with a cover page. Writer(s) used proper spelling, grammar, and punctuation. 2. The analysis was organized with an introduction that included a focus/thesis statement, narrative and conclusion or summary. 3. Writer(s) was/were able to view a film, and analyze, evaluate and synthesize a response. 4. Writer(s) discussed the question(s) posed regarding Chaos Theory and the film and provided appropriate examples to prove contentions. (Criteria numbered 1, 2 and 4 above are each allocated five points, while criterion 3 carries more weight and is worth ten points.)

On the horizontal axis of the scoring guide, the columns are labeled by points earned. Thus, to earn “Five Points,” the author(s) will have submitted an essay that is thoughtful, well written, interesting to read, focused on the question(s) posed in the directions, and had few to no
errors. To earn “Four Points,” the author(s) will have submitted an essay that is well written, interesting to read, discussed question(s) posed, and contained some errors. To earn “Three Points,” the author(s) will have submitted an analysis that was interesting to read, discussed question(s) posed, and may have contained several errors.

**Film-to-Paper-to-Class Discussion**

To provide closure to the film experience, we discuss the various films chosen for analysis. The students are in smaller groups to allow for all to participate in a discussion of leaders, leading, issues of context, and chaos. Sometimes I may group by similar films; for example, I will direct students to find *Wizard of Oz* observers (non-writing partners) and form a small group for discussion. On other occasions, I may group by a mix of the various films; thus, for example, students must find someone from *Oz*, from *Jurassic Park* and from *The Matrix*, and form a group for discussion. Then I ask the students to talk critically about what they learned about leadership, contextual issues of leading, watching films, and chaos theory applied to practice. When we break from small groups to merge again within the larger class, I steer the discussion to find common ground. If there are chalkboards or whiteboards in the classroom, I usually take notes for the student discussion and fill all boards!

**Conclusions**

Within the chaotic, complex environment of schools, principals have to make decisions and make meaning within the context of their organizations. Postmodernists and critical theorists would argue that the truth for each principal is contextually based, filled with multiple realities, and hard-to-discriminate truths. Occurrences and events have causes, which can be explored, but never completely explained (Derrida, 1982; Foucault, 1972, 1979; Lyotard, 1984; Rorty, 1996). Meaning emerges only provisionally, from a process of reinterpretation based on
the interaction between an actor and environment; dichotomies between subject and object or appearance and reality are ultimately untenable. Our purpose in using film critically is twofold: to help future school leaders understand and utilize chaos and complexity theory in their work, and to better understand and practice the art and science of leadership by interpreting events and situations to make meaning of the value and appropriateness of their decisions for the people in the organizations within which they work. We help them look for elements of power and control in a context, how and why we might make change. Our discussions focus on who might be excluded and how leadership is demonstrated in chaotic times. We try to discern what is unique to a particular film context relative to what we know about organizations, and what is similar across the various film contexts and differing groups. We attempt to discover common values and ideals that seem particular to a group in a certain context, as well as competing values.

As we transfer knowledge from the film to life and work in schools, we shift the conversation so our future leaders reflect upon their own commonalties and differences, helping them respect their differences from others, while becoming critical of those who would suppress differences or present some differences, for example, racial, gender, or class, negatively, stereotypically, or pejoratively. While we try as scholars and practitioners to come to some common understandings and conclusions about school leadership within contexts of and during times of chaos and complexity, we also try to pose the questions that may not have answers, pose questions that should be asked about leadership, and bring out aspects of chaos that we know exist in schools, just under the surface.
References


