Chaos in Prison: Explaining the Random Nature of Prison Riots

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Abstract

Despite many concentrated efforts to understand the prison riot phenomenon, what is obvious is that there does not appear to be any consensus as to what causes a prison to erupt in a riot. Researchers have examined potential practical causes (such as poor food, idleness, and weakened security) as well as theoretical causes (including deprivation theory, breakdown theory, and theories of collective behavior), and as of yet remain unable to explain or predict prison riots. Also lacking is any explanation of why all prisons with similar characteristics do not explode in violence.

Chaos theory gained popularity in the 1970's due to its ability to explain seemingly random events (such as water faucet drips or snowflake configurations), and its ability to demonstrate that there is in fact a pattern underlying these random events. Utilizing highly technical computer programs and some ingenuity, chaos theory remains an innovative tool arguing that ***strange attractors*** can be used to demonstrate and explain the seemingly chaotic nature of some events.

It is my contention that prison riots cannot be fully explained, nor can they be predicted; they are random occurrences. However, utilization of chaos theory allows one to understand that there is a pattern to prison riots but that this pattern cannot be predetermined.

INTRODUCTION

Currently used by scientists in both the "natural" and "social and behavioral" sciences, chaos theory lends itself well to explaining many phenomenon. Scientists have long recognized the fact that there exist errors, "noise", and events that are neither typical nor predictable. However, instead of attempting to find a causal explanation for such occurrences, scientists have most often simply called cases that did not "fit" in their research "noise", "error", etc. or more often, the cases were just dismissed as being "highly unusual", "outliers", and the like. Scientist, particularly Western scientists, tend to think of relationships in a linear fashion. Moreover, as a goal of science is perceived to be predictability, scientists find linear thinking a necessity - for without it, prediction and complete understanding of "natural" events could not exist. However, scientists in all fields are currently re-thinking the necessity of linear thinking and some are going so far as to think in terms of chaos theory.

THE THEORY

Chaos theory is not a theory of anarchy any more than it is *not* a way of understanding everything in our world (from population growth to art work and so on). In Turbulent Mirror, Briggs and Peat state:

> "Scientists have long admitted, of course, that outside the laboratory our world is seldom as Euclidean as it seems in the mirror of those laws that we hold up to nature. Turbulence, irregularity, and unpredictability are everywhere, but it has always seemed fair to assume that this was "noise", a messiness that resulted from the way things in reality crowd into each other...Chaos, irregularity, unpredictability. Could it be that such things are not mere noise, but have laws of their own? This is what some scientists are now learning. More than that, these scientists are showing how the strange laws of chaos lie behind many is not most of the things we considered remarkable about our world: the human heart beat and human thoughts, clouds, storms, the structure of galaxies, the creation of a poem, the rise and fall of the gypsy moth caterpillar population, the spread of a fire, a winding coastline, even the origins and evolution of life itself." (Briggs and Peat, 1989, p. 14)

Essentially Briggs and Peat point out that the structured, ordered, linear world scientists perceive and have studied really does not exist. What exists instead is a world of chaos; chaos is present in every system - social and physical. Chaos theory is a "new" (albeit the study of chaos dates back several decades, but has only recently been "discovered") way of understanding that for nearly all systems, natural and created, complete prediction is not possible and chaotic, or random, behavior is inevitable.

Scientists have discovered, however, that chaotic behavior is not without pattern. For example, a classic study in this area dealt with drips from a water faucet: "Most people imagine the canonical dripping faucet as relentlessly periodic, but it is not necessarily so...'it's a simple example of a system that goes from precedable behavior to unpredictable behavior,' Shaw [a leading chaos theorist and physicist] said. 'If you turn it up a

little bit, you can see a regime where the pitter-patter is irregular. As it turns out, it's not a predictable pattern beyond a short time. So even something a simple as a faucet can generate a pattern that is eternally creative.'" (Gleick, 1987, p. 262) In fact, Shaw went so far as to measure the drops (in terms of mass, falling time, etc.) and the time interval between the drops, theorizing that regular behavior would produce a patterned graph. Instead a graph with random points and no apparent pattern was produced; Shaw found the "regular" to be chaotic.

Chaos theorists and scientists know that as a system moves into chaotic behavior, the chaos increases and apparently seems to feed off itself, furthering a more and more chaotic system. Theoretically, this system may return to order, may continue in chaos, or may order itself in a new fashion. Importantly, chaos theorists have also discovered that the imposition of structure or order on any system will lead to or increase chaotic behavior. For chaos theory, this means a need to utilize nonlinear equations for analysis (contrary to our "linear" ways of perception). Although nonlinear equations are difficult and sometimes impossible to solve (especially for particularly complex systems), these equations illustrate the fact that the behavior of complex systems is dependent upon the initial conditions of a system. For example, one can calculate distance traveled in a car with a linear equation represented by Rate X Time. However, in reality, if one is traveling it is not merely

an occurrence of Rate X Time. Instead, what we find is that no two drivers are alike, no two cars are alike, no two starting points are exactly alike, there are stopping and starting periods, acceleration and deceleration periods, and on and on. Now, instead of a simple linear equation, one must include several variables of different powers, hence, a nonlinear equation. Small, even minute, differences become magnified as the nonlinear equations are calculated and what one finds is that simply because of the initial conditions of a car, a driver, and a start point, the end results are dramatically different.

The presence of chaos in our world may be best illustrated by the following: when ground breaking research was done on weather prediction, the researchers found that even a Cray super computer could not predict the weather (even from a human made program) because weather is dependent upon initial conditions and as each "equation" was calculated, the initial conditions changed just enough to change the equation. However, on a very large scale there *appeared* to be a pattern (this is weather forecasting as we know it), but on the small scale, when looking at the data and the actual equations - there is was no pattern, no predictability. "In systems like the weather, sensitive dependence on initial conditions was an inescapable consequence of the way small scales intertwined with large". (Gleick, 1987, p. 23) Basically, what the weather researchers found was that on the very large scale weather patterns appear so close to previous weather patterns it appears as if there is a pattern, but in

reality, the differences (albeit small) exist and exact predictability is not possible because the initial conditions are always changing (pollution, structures, satellites, animal behavior) and this influences the weather equation, thusly influencing actual weather conditions. This is the butterfly effect - the notion that the flapping of a butterfly's wings somewhere in the world affects the weather experienced elsewhere. This is the embodiment of a holistic science; a science that takes into account all actions of all parts of systems as influential in system outcomes. Sociologist William Berkson easily defines the dependence on initial conditions in the following passage:

> "In the new mathematics of non-linear dynamics, or 'chaos' theory, it has been noted that very many phenomena exhibit 'sensitive dependence on initial conditions'. This means that an infinitesimal change in the starting point or the conditions surrounding a phenomenon will result in a radically different course of events. In such situations it is not possible to predict with any accuracy the conditions of evolving systems at a particular future time. But in spite of the unpredictability of single events it is possible and this is the breakthrough in the new mathematics-to say a great deal that is testable about the pattern of future events.
>
> The evolution of snowflakes is an illustration of this kind of unpredictability of event but predictability of pattern. A slight change in conditions under which a snowflake forms results in a quite different shape. But still a great deal can be said about the pattern of snowflakes-all are hexagonal and so on." (Berkson, 1989. pps. 167-168)

Despite the unpredictability of chaos, scientists have discovered "hidden regularities within the complex variety of a system's behavior...[finding that in] any sort of system where there is confusion and unpredictability we can find underlying

order." (Crichton, p. 75) This underlying order is known as a strange attractor. Consider a study on stellar orbits in galaxies in which a system was designed to map the three dimensional phenomenon in two dimensions: "A typical orbit might begin with a point toward the lower left of the page. Then on the next go-round, a point would appear a few inches to the right. Then another, more to the right and up a little-and so on. At first no pattern would be obvious, but after ten or twenty points an egg-shaped curve would take shape. The successive points actually make a circuit around the curve, but since they do not come around to exactly the same place, eventually after hundreds or thousands of points, the curve is solidly outlined." (Gleick, 1987, p. 147) Subsequently, this is a strange attractor - not a prediction - but a pattern underlying seemingly random behavior.

Despite the brevity of the previous discussion, it is hoped that the reader now has some understanding of chaos theory. Currently chaos theory is utilized in biology (through the famous work of W. M. Schaffer on the spread of disease), in physics, chemistry, and the social sciences. In "Testability in the Social Sciences", William Berkson argues that chaos theory is not only applicable in the social sciences, but may be the best means for studying social sciences. He states, "Social laws and patterns are more likely to correspond to these nonlinear phenomenon [chaos theory and laws] , since they are the product of repeated, fairly complex interaction between individuals. And

hence successful testable theories are, I suspect, more likely to come to focus on the pattern [ie. strange attractor] than the full prediction of individual events [current linear thinking]." (Berkson, 1989. p. 168) T. R. Young, a postmodernist sociologist argues that chaos theory is applicable in the social sciences. He postulates:

> "Postmodern thought receives its scientific cachet from Chaos Theory...the work in chaos research has revealed a quite a different world from that of the modern world-view. In place of order, perfection, and normality, chaos is the rule. There are tiny pockets of order and determinacy but they are exceptions to the rule...chaos theory is just one of the many manifestations of the transitions from modern ways of understanding (and responding to) the world of nature and culture toward postmodern ways of acting, thinking, and believing...In modern science and modern criminology, order was desired; finding mathematical paths and mathematical equations was the task of the graduate student and the task of the research scientist. No one wanted findings that were unstable or correlations that were weak. A simple unified theory of behavior subsumed by stuctural-functional models was preferred. Chaos and indeterminacy were signs of failure-signs of poor scholarship and weak intelligence. In post-modern science and in postmodern criminology, such disorder becomes the arena in which one must work." (Young, 1990, pps. 6-7)

A leading criminologist, Harold Pepinsky, utilized chaos theory in criminology and criminal justice. Drawing heavily on the notion of the strange attractor, Pepinsky formulated a "'chaos' theory of how violence is reproduced". (Pepinsky, 1990, p. 166) Arguing that "social structure results nonlinearly from social interactions over generations..."The 'strange attraction' of intergenerational movement into more or less enduring structures cannot be predicted from the flow of the movement; nor can the structure (e.g., feudalism, capitalism) be predicted from

the flow. Not only do social structures arise almost magically or strangely; when people try to impose sudden structural change as through political revolution, within a generation, old structures almost magically or strangely reassemble themselves" (Pepinsky, 1990, pl 164), Pepinsky theorizes that synergetic systems "dissolve" into entropy or violence and that this violence increases the more physical monuments are built and discipline is imposed (Pepinsky, 1990, pps. 162-163). Thus, Pepinsky is suggesting that social interaction (and generational descent) are best represented by nonlinear systems due to their chaotic nature. However, he proposes that strange attractors (specifically, compassion) exist that allow for social interaction to lead to social structure (including physical structures as a part of social structure). Pepinsky suggests that violence acts as entropy in this synergetic social system and is the result of attempts to cling to some type of structure or to impose discipline upon the system. If violence is successfully met by compassion, the entropy will desist and will be converted into synergy. However, if this fails, the entropy will continue.

Further discussion will attempt to establish the fact that the prison environment is a very unique environment that survives only due to a delicate power balance between inmates and staff. When this balance is upset, riotous behavior may occur. Reasons for prison riots will be explored, and an attempt will be made to

determine what causes riots. What should become clear by the conclusion of this paper is that prisons represent unique chaotic systems that are nonlinear in nature and are subject to entropy and the chaos it breeds.

CHAOS IN PRISONS

American society relies upon prisons for the containment of its "criminal element." Once the "criminals" are behind prison walls, what happens to them is known primarily only to correctional staff and the inmates themselves. The public tends to stand at a relatively safe distance from the prison and seems to adopt a "see no evil, hear no evil, speak no evil" attitude regarding the institution. This public detachment from the prison usually ends when a riot occurs. Subsequently, after inmates riot, public outcry about the inmates themselves, prison security and prison conditions usually follows. It is precisely this outcry that leads scholars to attempt to understand why riots occur in prisons.

The inmates in prisons are controlled by a proportionately very small number of correctional staff, technological surveillance and custody and a lot of luck. It follows from this, then, that "inmates could seize control over an institution at any given moment should they wish to take that risk." (Barak-Glantz, 1983 p. 9) The question may become not one of why

prisoners riot, but one of why they do not riot. It may in fact be that the perceived legitimacy of punishment and collective awareness of the negative consequences of rioting help to explain why few riots occur. However, the fact remains that the majority of the prisons (limited to the United States) are overcrowded and are wrought with institutional and administrative difficulties. This situation represents a chaotic system with an imposed structure, and chaos theory suggests that this type of arrangement will not succeed.

Despite overcrowding and less than ideal conditions, riots are a rare occurrence in penal institutions and thus, constitute a perplexing problem. It is possible that riotous behavior occurs among inmates more often than is documented, but often spontaneous acts of violence are "restructured" and become routine practices through 1)institutional hearings, etc. that make spontaneous behavior a part of the bureaucracy running the institution, 2)support on the part of the staff that spontaneous violent behavior is simply a part of the job, or 3)rituals that hide spontaneous violent behavior behind a cloak of secrecy and/or understatement. (Johnson, 1986) This last practice may be an example of entropy in a chaotic system that has been reabsorbed. Riotous behavior that is most often reported and made public knowledge, consists of the most severe violent behavior and destruction and exemplifies a chaotic system with structure imposed to the point of insurmountable chaos (an accident waiting to happen).

Prison riots appear unique when compared to riots that take place outside the prison walls. Prison riots are seemingly more violent and bloodier, and result in incredible and costly amounts of damage. In The Society of Captives (1958 p. 120), Sykes pointed out that a riot is "a disturbing reminder of society's decision to punish some, to protect the many and simultaneously records the failure of 'penal policy'." Perhaps what is most intriguing about prison riots is the fact that they occur within institutions which were designed and operate to control inmates behavior through tight security. This causes one to wonder precisely how a riot can occur inside such an ordered and regulated institution. It is also interesting to note that during riotous behavior, inmates destroy the place in which they live (in a sense, they destroy their "home"). Furthermore, one wonders what drives inmates to such destruction and engage in such violent behavior for which reprimand and punishment are certain. It should be evident that complex social systems, such as a prison, are chaotic and nonlinear and thusly do not lend themselves well to highly imposed structure.

DEFINING PRISON RIOTS

Violent behavior often occurs in prisons, however this behavior is not always riotous. It is not entirely uncommon to hear of a guard "roughing-up" an inmate, an inmate directing violence against a guard, or violent behavior by one inmate

against another. Riots are outbreaks of violent behavior that are somehow different from other violent outbreaks in prison. Riots often involve the majority of the inmate population, are extremely violent, and often involve a great deal of violence against the correctional staff.

Prisons, unlike the outside world, are not "self-correcting mechanisms." (Sykes, 1958). In a sense, a prison is a closed system. In society, there exist different forms of release valves that release the pressure that builds up from various stresses and strains (or internal entropy). These release valves give the members of society an outlet and subsequently prevent outbreaks of violent behavior. However, in a prison, there are no release valves; there are not any ways to relieve the pressures and strains. In turn, small disturbances escalate, behaving like strange attractors, and lead to further disturbances with no outlet for release. The increase in disturbances without release, leads to a riot (this is the epitome of a chaotic system). Sykes (1958) supports this notion (of release valves) by arguing that "[riots] are a long time in the making. They are the culmination of a series of minor crises, each of which sets in motion forces for the creation of a new and more serious crises...riots are not an accident." Furthermore, this indicates a dependence on initial conditions and subsequent chaos that feeds off itself.

Riots involve an inmate attempt to take over the prison in order to control it and run the institution the way they wish.

Usually inmates try to initiate some type of change in the conditions in which they live. Vernon Fox (1971 p. 13) described this process as the inmates' desire to "smash the system that keeps them helpless, anonymous, and in despair..." What occurs during a riot involves inmate control of the institution whereas access by staff and administration is limited or non-existent. (Wilsnack, 1976) Inmates participating in the riot are usually attempting to implement some sort of change (typically through a list of demands) that will affect the prison population as a whole and not simply those actively rioting. The inclusion of demands for change and the control of the institution by the inmates differentiates this type of violence from other types.

As riots are a different form of inmate violence, they are not initiated in the same way as other violence, nor do they follow the same course of action. Riots, particularly prison riots, are a very unique type of collective behavior.

As chaos theory suggests patterns may exist in chaotic systems due to strange attractors, one can see that riots cannot be understood by examining isolated incidents or riots . It is important to look at the history of prison riots in order to understand the riots themselves.

A HISTORY OF PRISON RIOTS

The following is a brief discussion of the history of prison riots. It is necessary to understand that although prison riots appear as isolated incidents of violent behavior, it is important to remember that they are the products of a chaotic system.

The first recorded prison riot occurred in Simbury, Connecticut in 1774. (Dillingham & Montgomery, 1983) The fact that prison riots were occurring in the eighteenth century may indicate that riots are more than merely spontaneous violent behavior. The continued occurrence of prison riots since 1774 may serve to support this notion. Research into the history of prison riots reveals four major "waves" (Barak-Glantz, 1983) or time periods during which prison riots seem to be particularly prevalent. These waves represent "not only a cyclical pattern of periodic flare-ups every decade or so, but also a steady increase in occurrences of disruptive behavior and a change in the seriousness of the riots in terms of injuries and damage to property." (Barak-Glantz, 1983, p. 5) Information on early prison riots is neither good nor very descriptive until the 1900's. Although this discussion may appear limited, it <u>does</u> present highlights of time periods during which prison riots seem to have occurred with relative frequency and illustrates the problematic nature of prison riots. Moreover, the "waves" of riotous behavior throughout American history demonstrate the profound force strange attractors exert on chaotic systems (the reader

will find a similar analysis in Pepinsky's Geometry of Violence regarding "waves" of violence in society - although beyond the scope of this paper, this is a theoretical link further demonstrating the validity of the notion of the strange attractor).

The first wave outlined by Barak-Glantz (1983) occurs around the time of World War I (ending in 1915). Prison riots during this time were not overly violent and did not result in many deaths or property damage. The first riot during this wave was recorded as lasting approximately twenty-four months and resulted in some inmate demands being met.

The second wave of prison riots occurred at approximately the same time as the Depression (from 1929-1931). Also occurring at this time period was the introduction and practice of the rehabilitation model in criminology. During this era prisoner rights and treatments were extended which produced more outside involvement in the prison and may have led to the riots during this period.

The third wave of prison riots took place during the era of the Korean War (1951) and lasted into the 1960's. These riots were based on complaints about food, treatment, and other complaints that seem to be commonplace for more recent riots. Riots far exceeded one or two a year and increased in brutality. Riots quickly spread from one institution to another.

The fourth wave of riots began in 1971 with the Attica riot in New York. This riot marked the bloodiest and most severe riot

to this point. Severe riots continued in 1971 at Idaho State Penitentiary and Rahway. In 1973, two more state prisons experienced riots, and this continued through 1978 with a total of nine very severe riots occurring between 1971 to 1978. The worst riot however, occurred in 1980 at the New Mexico State Penitentiary. This riot remains as the bloodiest riot of record. It has been theorized that the prison riots of the 1970's were so numerous and violent because of the increased contact between the inmates and the outside world which lead to increased social awareness. (Wilsnack, 1976) A 1981 riot at the State Prison of Southern Michigan triggered subsequent riots in the three largest prisons in Michigan during the following week. This fourth wave of riots were based on complaints of poor food, treatment, education, and visiting privileges, as well as rising job satisfaction among correctional staff (Cerrato, 1984). Riots continue to occur to date, but the research in this field does not cover them as of yet. What is known however, is that "the magnitude and dangerousness of more recent riots have increased with ever-growing and ever-crowded conditions in most state correctional facilities" (Dillingham & Montgomery, 1983, p. 33) Perhaps this increasing violence suggests an increasingly chaotic system.

The South Carolina Department of Corrections researched collective violence in prisons (Dillingham & Montgomery, 1983). This research revealed that more riots occur: 1) in maximum security prisons, 2) when contact time with prison administration decreases, 3)staff and inmates have more education, 4) when inmates lack meaningful jobs, 5) when recreational activities are lacking, and 6) when punishment occurs more often than rewards.

A study of prison riots from 1971-1972 by Wilsnack and Ohlin (Wilsnack, 1976) was an attempt to understand what factors lead to prison riots. Instead of discovering what causes prison riots, Wilsnack and Ohlin found "**...that nothing automatically produces collective violence in prison...No single pre-condition nor combination of pre-conditions covered in our questionnaire was always followed by a prison disturbance** [emphasis mine]." (Wilsnack, 1976, p. 69) Pre-conditions examined in this study included administrative changes, political organization or activities, staff conflicts, and lack of staff. Tightening security did not appear to contribute to prison riots. What this research did find was that overcrowding, idleness, and lack of separation of dangerous inmates are often conditions found in prisons which experience riots (although they did not find a causal relationship). What seemed apparent to these researchers was that inmates are more predisposed to riot when they feel powerless or when they feel that the prison administration will

not negotiate with them. These findings indicate that it is difficult, if not impossible, to conceive of and study prisons as linear systems. It is probable that prison systems are best represented by non-linear equations.

Vernon Fox argued that morale and the battle between the institution's goal of custody and the belief in rehabilitation were primary causative factors for prison riots. He argued that, "Riots occur in prisons where inmates have medium to high morale and where some conflict appears in the staff, probably between treatment and custodial philosophies..." (Fox, 1971, p. 11)

Research in the field does, however, seem to fall into two major areas in terms of trying to determine the causes of prison riots. The first of area of factors consists of "practical" causes, including administrative changes, poor food, etc. The second area is "theoretical" causes, including deprivation theory and breakdown theory. Chaos theory suggests that these factors are not causal factors per se, but instead are strange attractors that allow patterns in chaotic behavior to be identified.

PRACTICAL CAUSES

The practical causes appear frequently in the literature and are believed to have a direct impact on inmate behavior. The term "practical" is utilized here because these elements consist of conditions regarding the operation of the prison, the condition of the prison, the administration, the staff, or the

inmates themselves. These conditions are practical because they are readily obvious and are involved in the everyday operation of the prison. In other words, these practical conditions involve the "degrading and humiliating nature of prison life in general." (Douglas, Drummond, & Jayewardene, 1980, p. 197)

The first of these practical causes is the controversy between rehabilitation of inmates and keeping them under lock and key. (Douglas, Drummond, & Jayewardene, 1980, Barak-Glantz, 1983) The prison sees its primary goal as custody of inmates, while inmates are often under the impression that they are to receive rehabilitative treatment. This inconsistency only adds to the hostility and frustration inmates feel.

The second of the practical causes stems from the condition of the prison itself. (Useem & Kimball, 1989) Poor or contaminated food, lack of recreational facilities, lack of educational opportunities, and a lack of segregation of dangerous inmates all contribute to an unstable and unhappy environment for the inmates.

Administration of the prison serves as the third practical cause. Political appointments and a high turn-over rate in administrative officials contribute to an unstable prison environment. (Toch, 1977, Irwin, 1980, Cerrato, 1984) Instability in administration leads to instability in the way the prison is run. Correctional staff and inmates become confused as to what is expected of them and the goals of the institution. It is not hard to imagine the hostilities that are fueled.

The fourth practical cause is the correctional staff. The problems presented by the staff are twofold. In the first place, correctional staff may be dissatisfied with their jobs or the non-professional career in which they work. (Barak-Glantz, 1984, Cerrato, 1983) In addition, staff may feel that they are too few in numbers (they may actually be) in order to control the inmates and to do their job. (Wilsnack, 1976) When these dissatisfactions occur, not only do hostilities rise, but security lapses may occur (Bowker, 1983). Harassment and unfair treatment of the inmates by the staff is the second problem the staff presents. Harassment of the inmates and mass punishment for abuses by the few are common complaints made by inmates. (Douglas, Drummond, & Jayewardene, 1980, Barak-Glantz, 1983)

The inmates themselves are the fifth practical cause of prison riots. Snitching, harassment, homosexual advances, and rape by other inmates cause factions and hostilities to develop between the inmates and add to their growing dissatisfaction with the prison. (Fox, 1982) Inmates' contact with the outside world is limited, and subsequently they may see a riot as a way of communicating prison conditions to the public. (Wilsnack, 1976, Fox, 1982) The large increase in the black, urban male population brought racial tension and new social awareness into the prison furthering tension between staff and inmates and amongst the inmates themselves. (Barak-Glantz, 1983, Useem & Kimball, 1989) Finally, idleness is another complaint often cited by inmates. (Douglas, Drummond, & Jayewardene, 1980, Barak-Glantz,

1983) Inmates argue that they do not have any meaningful work (or possibly any work at all), no education opportunities, and restricted recreational opportunities. While the inmates are not asking for a summer camp type experience, they are asking for something to do other than sitting in a small cell. Perhaps the best way to express the impact of inmate idleness on the operation of the prison is the old adage that "idle hands make the devil's work."

Overall, in terms of these practical causes, it may appear that riotous behavior may be prevented by addressing these concerns; by providing the inmates with something meaningful to occupy their time, by professionalizing staff, and by instituting some stability in the day to day operations of the prison. More accurately though, the prison-system's instability and lack of uniformity are characteristic of chaotic systems. It should be clear that these practical causes are best represented by a nonlinear equation with sensitivity to initial conditions, and subsequently one realizes that prison riots cannot be prevented.

THEORETICAL CAUSES

The literature presents three major theoretical causes for prison riots. These theories are: deprivation theory, breakdown of social control theory, and a theory of collective behavior.

Perhaps the most popular of the three theoretical causes of prison riots is the deprivation theory. Deprivation theory is

based upon the notion that human beings act rationally. Deprivation theorists argue that during a prison riot, inmates are acting rationally and are rioting because the conditions under which they live force them to riot. (Sykes, 1958, Bowker, 1983) Theorists subscribing to this notion also argue that the rising expectations of inmates (perhaps due to promises for change by the administration) lead to severe disappointment when they are not met. (Barak-Glantz, 1983) Subsequently, this disappointment occurs, inmates find themselves in such deprived situations that they riot.

Situational stress theory may be considered a sub-theory of deprivation theory. Situational stress refers to the pressures and frustrations inmates develop due to the prison situation. (Perry & Pugh, 1978) Some examples of situational stress are: inmate harassment, racial conflicts, and unequal power situations. Psychological problems such as a loss of hope, a feeling of losing one's manhood, etc. may also contribute to situational stress. (Fox, 1982) Theorists argue that when situational stress becomes too much for the inmates to handle, they riot.

This theory, despite its popularity, is flawed. Nearly all inmates in all prisons live in deprived circumstances, accordingly, deprivation theory would seem to indicate that all inmate living in deprivation would riot. This is not true.

Breakdown theories or social control theories are also popular explanations for prison riots. Breakdown theorists argue

that social controls force people to behave. (Wilsnack, 1976, Bowker, 1983) According to the breakdown theory, when inmates riot, they are engaging in irrational behavior and the end goal is to re-establish the social controls that no longer control inmate behavior. Inconsistent rules, high rates of administration or staff turn-over, escapes, and unprofessional staff may all lead to a breakdown in the social controls in the institution.

Also included in breakdown theory is the notion of loss of inmate power. Inmate subcultures and power structures serve many functions, and one such function is that of informal social control for the inmates. (Wilsnack, 1976, Bowker, 1977, Barak-Glantz, 1983) This informal social control appears as illegitimate means for inmates to obtain status, power, contraband, cigarettes, etc. when the legitimate means to these items are not present. When the administration or staff limits the availability of these illegitimate means, informal social control for the inmates breaks down. Breakdown theorists suggest that by rioting, inmates may be trying to return to the status quo and may be trying to re-establish the informal social controls.

Examining prison riots from a conflict perspective can also tie into breakdown theory. The conflict perspective stresses that the prison situation is a series of unresolved conflicts between inmates and staff, administration, and other inmates (Dillingham & Montgomery, 1982, Dillingham & Montgomery, 1983).

When these unresolved conflicts become too numerous, social control is no longer possible and inmates riot.

Breakdown theory stresses the irrationality of riotous behavior and a desire to return the social controls. It appears however, that inmates riot in order to instigate and promote change, not to return to the previous status quo, moreover, it is highly suspect to suggest that this is irrational behavior.

The third theoretical approach to the study of prison riots stems from theories of collective behavior. Prison riots, according to this theory, are nothing more than a spontaneous outburst of violent behavior. (Fox, 1971, Perry & Pugh, 1978, Dillingham & Montgomery, 1982, Dillingham & Montgomery, 1983). Prison riots, according to collective behavior theorists, rely on the conduciveness of the prison structure (it is easy to gain control of the institution or parts of it), inmate strains, growth of a belief or rumor, a precipitating factor, and subsequent action on behalf of the inmates. According to this theory, social controls return the inmates to non-riotous behavior.

In order for a prison riot to be a truly spontaneous event, strains, rumors, and precipitating factors need not be present. Perhaps instead of seeing prison riots as spontaneous behavior, they should be seen merely as an overt act of collective behavior.

What appears obvious from the previous discussion is that there does not appear to be any consensus as to what causes a

prison to erupt in the violence of a riot suggesting prison riots are examples of chaotic and random behavior, not predictable behavior.

I do not feel that any one of these theories adequately explains prison riots. Riots are the culmination of deprived conditions for the inmates, a breakdown in social controls, and the result of collective behavior:

> It's not the physical condition of the inmates which matters, but their mental state; not their 'objective' deprivation (at least not directly), but their subjective experience of deprivation and grievance... In general, information, change and instability, and ideology can intensify the feelings of deprivation and destroy the presumption of legitimacy. (Bowker, 1983)

This description is an illustration of a chaotic system that can not be examined in a traditional linear sense. The aforementioned theoretical causes of riots may be linked, but instead of a predictive theory of collective behavior, a chaos theorist understands the random nature of prison riots and subsequently may view these united theories as descriptions of entropy and strange attractors. Riots are a form of collective behavior. The strain of the prison situation and the deprivation of the inmates (the practical causes) unites the inmates. Rumors of riot and/or escape attempts escalate hostilities. As hostilities increase, the informal social controls of the inmates are dismantled by administration and staff, thus adding to the hostilities. A precipitating event occurs (an attack on an inmate, mistreatment of an inmate,

etc.), and the prison erupts in violence. Inmates take control of the institution and take hostages in order to have something with which to bargain. Inmates riot in an attempt to create change in the prison. Prison riots are not irrational behavior, nor are they simply spontaneous behavior.

Riots do follow a particular course of action. In order to understand the pattern of a riot, one must turn away from the causes of riots.

THE COURSE OF PRISON RIOTS

The notion that riots may be spontaneous behavior (discussed under theoretical causes of riots) does not eliminate the possibility that prison riots do follow a sequential pattern as they run their course. This notion is also easily covered by chaos theory in that it is recognized that even seemingly random events may appear to have some type of order if they are examined extensively.

Vernon Fox (1971) outlined a five stage pattern for prison riots. According to Fox, the stages in prison riots are:

1. a time of unorganized violence by inmates and possibly staff, during which the violence does not seem to be aimed at specific targets
2. inmate leaders emerge and form some sort of administration uniting the inmates
3. inmates and prison officials enter into some type of interaction, violence and/or negotiations, and during this time inmate cohesion begins to lessen

4. inmates surrender control of the institution either due to force or as a result of negotiations

5. investigations of the riot, an attempt by the administration to re-construct power, personnel and policy changes.

This five stage pattern begins with the violent outbreak and seemingly ignores any behavior that would occur before the riot actually begins.

Lee Bowker (1983) also developed a systematic pattern of prison riot behavior. Bowker's pattern includes only three steps, and is as follows:

1. orientation, planning, and organization, including growing solidarity and hostility among the inmates, inmate organization and plans for action during the riot, and showing the staff and administration what the inmates are capable of (demonstrations, escapes, and so on)

2. getting other inmates to join the riot, emergence of inmate leaders, and an emphasis on group solidarity and collective support for riotous action

3. seizing control of the prison, taking hostages.

Unlike Fox's pattern, Bowker's theory of riot behavior begins with pre-riot behavior but does not include inmate surrender, investigation, etc.

Due to the fact that Fox's theory does not include pre-riot behavior and the fact that Bowker's theory does not include behavior at the end of the riot, I believe that neither theory truly captures the essence of the pattern of behavior that occurs during a prison riot. However, I do see consistency between the two theories and believe that they can

be fused to provide one seemingly complete pattern of chaotic prison riot behavior. This pattern would emerge as a series of dots or values obtained using a nonlinear equation - the pattern would appear as the results from repetitive iterations would lie close to one another, but not on top of one another (for this would illustrate a predictive pattern that is not reflected in reality).

First, there is some type of pre-riot behavior. This pre-riot behavior involves inmate demonstration of solidarity (through a demonstration, escapes, etc.). Inmate solidarity is vital in order for the inmates to be at all successful in their attempt to gain control of the prison. Also during this first stage, inmate hostilities toward correctional staff will grow. This time period may also be filled with rumors about riots and/or assaults on staff.

Second, some precipitating event must occur which essentially starts the riot. This event may be an inmate's assault on a guard, a guard's assault on an inmate, or something similar. Neither Fox nor Bowker account for the precipitating factor, yet when prison riots such as Attica and New Mexico are examined, the existence of some type of precipitating event is clear.

It is important to note here that what have been categorized as pre-riot behavior and as precipitating events occur with frequency in institutions. However, despite

frequent occurrences, pre-riot behavior and/or precipitating factors often do not produce riots.

Third, there is a period of seemingly undirected violence by the inmates. This undirected violence may take the form of self satisfaction: "Once a riot has begun, many inmates use it as an occasion for purely individualistic predation." (Bowker, 1977) Conduciveness of the structure of the prison allows for this behavior. For example, in Attica inmates quickly spread the riot thanks to a faulty gate which gave way and gave them access to the prison. In New Mexico, the central control area was enclosed in glass (a recent replacement of bars) which was quickly smashed, giving the inmates control of the institution. During this period, recruitment of other inmates is undertaken. At this point, prison staff is usually caught "off guard" and staff actions also appear to be unorganized. Toward the end of this period, inmates gain control of the institution or parts of the institution. Hostages, either staff or other inmates, are also taken during this time.

Fourth, inmate leaders emerge. The leaders are often religious leaders, gang leaders, or jail house lawyers. The leaders are often the more aggressive and violent inmates, yet they inspire solidarity. (Sykes, 1958) At this point, inmate leaders may coerce other inmates into joining the riot. (Wilsnack, 1976) These leaders attempt to unite the inmates and to formulate a list of demands, which if met will result in the release of the hostages and the seizure of the institution (or

parts of the institution). Inmate leaders also express collective support for the riot. By guaranteeing anonymity of participants, fear of punishment decreases, and solidarity and aggressiveness increase. (Perry & Pugh, 1978)

Various ideologies are used by the inmates and inmate leaders to justify participation in a riot. These ideologies are: nationalism, constitutionalism, rehabilitationism, and revolutionism. (Bowker, 1977) "Nationalism" conveys the belief among inmates that conditions in the prison are poor because administration and staff are not doing their jobs. "Constitutionalism" is the belief that conditions in the prison will improve if outside authorities are made aware of the conditions inside. "Rehabilitationism" is the justification based on the belief that the prison should not be used merely for custody, but for rehabilitation. These first three justifications appear to be related to the practical causes of prison riots. The final justification, "revolutionism", is the belief that the prison is a place of repression and the inmates are locked up because they are poor, black, etc. This final justification is more closely related to the theoretical causes of prison riots.

Fifth, interaction between inmate leaders and prison administration occurs either in the form of negotiations or correctional staff forcefully re-taking the prison (or seized parts). At this point, group cohesion among the inmates begins to lessen.

Sixth, inmates surrender. The surrender may be due to some agreement between the inmate leaders and prison administration regarding the inmates' demands, or may be do to force. (Bowker, 1977)

Seventh, the prison is now under the control of the administration and staff. Investigations concerning the riot are conducted and personnel changes often follow. Inmate demands may be implemented or may be ignored.

CONCLUSION

Prison riots cannot be explained by any <u>one</u> of the current theories in the field in part because all prison riots are unique, partly because collective behavior in prisons is more accurately perceived as a non-linear relationship, and partly because there exist an overwhelming number of prisons (at least in the United States) that experience any one or combination of the "causes" yet never see riots. The same is true of the pattern prison riots follow: no one theory is sufficient, they must be united. Instead, the theories must be fused together in order to describe the chaotic nature of prison riots.

Prison riots cannot be totally predicted because of their chaotic nature. A chaotic system, such as a prison, is subject to extreme entropy (ie. a riot) when the system or environment is full of instability and discrepancies. Providing a safe, stable environment is the best protection

against an inmate riot. (Colvin, 1982, Barak-Glantz, 1983, This includes prison conditions, administration, and formal, as well as informal, social control structures.

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