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The research reported in this article is part of a larger project sponsored by the Office of Naval Research which is designed to develop a better understanding of the basic psychological mechanisms underlying human aggression. In this study, Dr. Zimbardo fabricated a simulation of the essential characteristics of a prison environment. From a highly selected group of college students, Dr. Zimbardo randomly assigned half as "guards" (with all attendant powers) and half as "prisoners" (under the complete subjugation of the "guards"). Essentially then, a group of intelligent, "normal" young men were put into a situation which demanded close contact over a period of several days. There was a well-defined authority/subordinate relationship between "guards" and "prisoners." The "prison" environment was further manipulated to promote anonymity, depersonalization, and dehumanization among the subjects. The study demonstrates how these variables combine to increase the incidence of aggressive behavior on the part of the "guards" and submissive and docile conformity on the part of the "prisoners."

Studies such as this one help to identify and isolate the various processes which motivate aggressive/submissive behavior within a "total institution" such as a prison. The Navy and Marine Corps have a direct interest in the conclusions drawn from this study in as much as parallels can be made between the forces which operated within Dr. Zimbardo's "prison" and those which spawn disruptive interpersonal conflict in Naval prisons. More importantly, however, this study identifies some of the conditions which are likely to promote unrest when men are placed in situations which demand close contact for protracted periods of time. Such research increases the Navy's capability to develop effective training designs to eliminate conditions which elicit counter-productive conflict.

INTRODUCTION

After he had spent four years in a Siberian prison the great Russian novelist Dostoevsky commented surprisingly that his time in prison had created in him a deep optimism about the ultimate future of mankind because, as he put it, if man could survive the horrors of prison life he

must surely be a "creature who could withstand anything." The cruel irony which Dostoevsky overlooked is that the reality of prison bears witness not only to the resiliency and adaptiveness of the men who tolerate life within its walls, but as well to the "ingenuity" and tenacity of those who devised and still maintain our correctional and reformatory systems.

Nevertheless, in the century which has passed since Dostoevsky's imprisonment, little has changed to render the main thrust of his statement less relevant. Although we have passed through periods of enlightened humanitarian reform, in which physical conditions within prisons have improved somewhat, and the rhetoric of rehabilitation has replaced the language of punitive incarceration, the social institution of prison has continued to fail. On purely pragmatic grounds, there is substantial evidence that prisons really neither "rehabilitate" nor act as a deterrent to future crime—in America, recidivism rates upwards of 75 percent speak quite decisively to these criteria. And, to perpetuate what is also an economic failure, American taxpayers alone must provide an expenditure for "corrections" of 1.5 billion dollars annually. On humanitarian grounds as well, prisons have failed: our mass media are increasingly filled with accounts of atrocities committed daily, man against man, in reaction to the penal system or in the name of it. The experience of prison creates undeniably, almost to the point of cliché, an intense hatred and disrespect in most inmates for the authority and the established order of society into which they will eventually return. And the toll it takes in the deterioration of human spirit for those who must administer it, as well as for those upon whom it is inflicted, is incalculable.

Attempts to provide an explanation of the deplorable condition of our penal system and its dehumanizing effects upon prisoners and guards, often focus upon what might be called the *dispositional hypothesis*. While this explanation is rarely expressed explicitly, it is central to a prevalent nonconscious ideology: that the state of the social institution of prison is due to the "nature" of the people who administrate it, or the "nature" of the people who populate it, or both. That is, a major contributing cause to despicable conditions, violence, brutality, dehumanization and degradation existing within any prison can be traced to some innate or acquired characteristic of the correctional and inmate population. Thus on the one hand, there is the contention that violence and brutality exist within prison because guards are sadistic, uneducated, and insensitive people. It is the "guard mentality," a unique syndrome of negative traits which they bring into the situation, that engenders the inhumane treatment of prisoners. On the other hand, there is the argument that prison violence and brutality are the logical and predictable results of the involuntary confinement of a collective of individuals whose life histories are, by definition, characterized by disregard for

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law, order and social convention and a concurrent propensity for impulsivity and aggression. In seeming logic, it follows that these individuals, having proven themselves incapable of functioning satisfactorily within the "normal" structure of society, cannot do so either inside the structure provided by prisons. To control such men, the argument continues, whose basic orientation to any conflict situation is to react with physical power or deception, force must be met with force, and a certain number of violent encounters must be expected and tolerated by the public.

The dispositional hypothesis has been embraced by the proponents of the prison *status quo* (blaming conditions on the evil in the prisoners), as well as by its critics (attributing the evil to guards and staff with their evil motives and deficient personality structures). The appealing simplicity of this proposition localizes the source of prison riots, recidivism and corruption in these "bad seeds" and not in the conditions of the "prison soil." Such an analysis directs attention away from the complex matrix of social, economic and political forces that combine to make prisons what they are—and that would require complex, expensive, revolutionary actions to bring about any meaningful change. Instead, rioting prisoners are identified, punished, transferred to maximum security institutions or shot, outside agitators sought, and corrupt officials suspended—while the system itself goes on essentially unchanged, its basic structure unexamined and unchallenged.

However, the dispositional hypothesis cannot be critically evaluated directly through observation in existing prison settings, because such naturalistic observation necessarily confounds the acute effects of the environment with the chronic characteristics of the inmate and guard populations. To separate the effects of the prison environment *per se* from those attributable to *a priori* dispositions of its inhabitants requires a research strategy in which a "new" prison is constructed, comparable in its fundamental social-psychological milieu to existing prison systems, but entirely populated by individuals who are undifferentiated in all essential dimensions from the rest of society.

Such was the approach taken in the present empirical study, namely, to create a prison-like situation in which the guards and inmates were initially comparable and characterized as being "normal-average," and then to observe the patterns of behavior which resulted, as well as the cognitive, emotional and attitudinal reactions which emerged. Thus, we began our experiment with a sample of individuals who were in the normal range of the general population on a variety of dimensions we were able to measure. Half were randomly assigned to the role of "prisoner," the others to that of "guard," neither group having any history of crime, emotional disability, physical handicap or even intellectual or social disadvantage.

The environment created was that of a "mock" prison which physically constrained the prisoners in barred cells and psychologically conveyed the sense of imprisonment to all participants. Our intention was not to create a *literal* simulation of an American prison, but rather a functional representation of one. For ethical, moral and pragmatic reasons we could not detain our subjects for extended or indefinite periods of time, we could not exercise the threat and promise of severe physical punishment, we could not allow homosexual or racist practices to flourish, nor could we duplicate certain other specific aspects of prison life. Nevertheless, we believed that we could create a situation with sufficient mundane realism to allow the role-playing participants to go beyond the superficial demands of their assignment into the deep structure of the characters they represented. To do so, we established functional equivalents for the activities and experiences of actual prison life which were expected to produce qualitatively similar psychological reactions in our subjects—feelings of power and powerlessness, of control and oppression, of satisfaction and frustration, of arbitrary rule and resistance to authority, of status and anonymity, of machismo and emasculation. In the conventional terminology of experimental social psychology, we first identified a number of relevant conceptual variables through analysis of existing prison situations, then designed a setting in which these variables were operationalized. No specific hypotheses were advanced other than the general one that assignment to the treatment of "guard" or "prisoner" would result in significantly different reactions on behavioral measures of interaction, emotional measures of mood state and pathology, attitudes toward self, as well as other indices of coping and adaptation to this novel situation. What follows is a discussion of how we created and peopled our prison, what we observed, what our subjects reported, and finally, what we can conclude about the nature of the prison environment and the psychology of imprisonment which can account for the failure of our prisons.

METHOD

Overview

The effects of playing the role of "guard" or "prisoner" were studied in the context of an experimental simulation of a prison environment. The research design was a relatively simple one, involving as it did only a single treatment variable, the random assignment to either a "guard" or "prisoner" condition. These roles were enacted over an extended period of time (nearly one week) within an environment that was physically constructed to resemble a prison. Central to the methodology of creating and maintaining a psychological state of imprisonment was the functional simulation of significant properties of "real

prison life" (established through information from former inmates, correctional personnel and texts).

The "guards" were free within certain limits to implement the procedures of induction into the prison setting and maintenance of custodial retention of the "prisoners." These inmates, having voluntarily submitted to the conditions of this total institution in which they now lived, coped in various ways with its stresses and its challenges. The behavior of both groups of subjects was observed, recorded, and analyzed. The dependent measures were of two general types: (1) transactions between and within each group of subjects, recorded on video and audio tape as well as directly observed; (2) individual reactions on questionnaires, mood inventories, personality tests, daily guard shift reports, and post experimental interviews.

Subjects

The 22 subjects who participated in the experiment were selected from an initial pool of 75 respondents, who answered a newspaper ad asking for male volunteers to participate in a psychological study of "prison life" in return for payment of \$15 per day. Each respondent completed an extensive questionnaire concerning his family background, physical and mental health history, prior experience and attitudinal propensities with respect to sources of psychopathology (including their involvements in crime). Each respondent also was interviewed by one of two experimenters. Finally, the 24 subjects who were judged to be most stable (physically and mentally), most mature, and least involved in anti-social behaviors were selected to participate in the study. On a random basis, half of the subjects were assigned the role of "guard," half were assigned to the role of "prisoner."

The subjects were normal, healthy, male college students who were in the Stanford area during the summer. They were largely of middle class socio-economic status and Caucasians (with the exception of one Oriental subject). Initially they were strangers to each other, a selection precaution taken to avoid the disruption of any pre-existing friendship patterns and to mitigate against any transfer into the experimental situation of previously established relationships or patterns of behavior.

This final sample of subjects was administered a battery of psychological tests on the day prior to the start of the simulation, but to avoid any selective bias on the part of the experimenter-observers, scores were not tabulated until the study was completed.

Two subjects who were assigned to be a "stand-by" in case an additional "prisoner" was needed were not called, and one assigned to be a "stand-by" guard decided against participating just before the simulation phase began—thus, our data analysis is based upon ten prisoners and eleven guards in our experimental conditions.

Physical Aspects of the Prison

The prison was built in a 35-foot section of a basement corridor in the psychology building at Stanford University. It was partitioned by two fabricated walls; one was fitted with the only entrance door to the cell block and the other contained a small observation screen. Three small cells (6 x 9 ft.) were made from converted laboratory rooms by replacing the usual doors with steel barred, black painted ones, and removing all furniture.

A cot (with mattress, sheet and pillow) for each prisoner was the only furniture in the cells. A small closet across from the cells served as a solitary confinement facility; its dimensions were extremely small (2 x 2 x 7 ft.), and it was unlighted.

In addition, several rooms in an adjacent wing of the building were used as guard's quarters (to change in and out of uniform or for rest and relaxation), a bedroom for the "warden" and "superintendent," and an interview-testing room. Behind the observation screen at one end of the "yard" (small enclosed room representing the fenced prison grounds) was video recording equipment and sufficient space for several observers.

Operational Details

The "prisoner" subjects remained in the mock-prison 24 hours per day for the duration of the study. Three were arbitrarily assigned to each of the three cells; the others were on stand-by call at their homes. The "guard" subjects worked on three-man, eight-hour shifts; remaining in the prison environment only during their work shift and going about their usual lives at other times.

Role Instructions

All subjects had been told that they would be assigned either the guard or the prisoner role on a completely random basis and all had voluntarily agreed to play either role for \$15.00 per day for up to two weeks. They signed a contract guaranteeing a minimally adequate diet, clothing, housing and medical care as well as the financial remuneration in return for their stated "intention" of serving in the assigned role for the duration of the study.

It was made explicit in the contract that those assigned to be prisoners should expect to be under surveillance (have little or no privacy) and to

have some of their basic civil rights suspended during their imprisonment, excluding physical abuse. They were given no other information about what to expect nor instructions about behavior appropriate for a prisoner role. Those actually assigned to this treatment were informed by phone to be available at their place of residence on a given Sunday when we would start the experiment.

The subjects assigned to be guards attended an orientation meeting on the day prior to the induction of the prisoners. At this time they were introduced to the principal investigators, the "Superintendent" of the prison (the author) and an undergraduate research assistant who assumed the administrative role of "Warden." They were told that we wanted to try to simulate a prison environment within the limits imposed by pragmatic and ethical considerations. Their assigned task was to "maintain the reasonable degree of order within the prison necessary for its effective functioning," although the specifics of how this duty might be implemented were not explicitly detailed. They were made aware of the fact that, while many of the contingencies with which they might be confronted were essentially unpredictable (e.g., prisoner escape attempts), part of their task was to be prepared for such eventualities and to be able to deal appropriately with the variety of situations that might arise. The "Warden" instructed the guards in the administrative details, including: the work-shifts, the mandatory daily completion of shift reports concerning the activity of guards and prisoners, the completion of "critical incident" reports which detailed unusual occurrences, and the administration of meals, work and recreation programs for the prisoners. In order to begin to involve these subjects in their roles even before the first prisoner was incarcerated, the guards assisted in the final phases of completing the prison complex—putting the cots in the cells, signs on the walls, setting up the guards' quarters, moving furniture, water coolers, refrigerators, etc.

The guards generally believed that we were primarily interested in studying the behavior of the prisoners. Of course, we were as interested in the effects which enacting the role of guard in this environment would have on their behavior and subjective states.

To optimize the extent to which their behavior would reflect their genuine reactions to the experimental prison situation and not simply their ability to follow instructions, they were intentionally given only minimal guidelines for what it meant to be a guard. An explicit and categorical prohibition against the use of physical punishment or physical aggression was, however, emphasized by the experimenters. Thus, with this single notable exception, their roles were relatively unstructured initially, requiring each "guard" to carry out activities necessary for interacting with a group of "prisoners" as well as with other "guards" and the "correctional staff."

Uniforms

In order to promote feelings of anonymity in the subjects each group was issued identical uniforms. For the guards, the uniform consisted of: plain khaki shirts and trousers, a whistle, a police night stick (wooden batons), and reflecting sunglasses which made eye contact impossible. The prisoners' uniform consisted of a loose fitting muslin smock with an identification number on front and back, no underclothes, a light chain and lock around one ankle, rubber sandals and a cap made from a nylon stocking. Each prisoner also was issued a toothbrush, soap, soapdish, towel and bed linen. No personal belongings were allowed in the cells.

The outfitting of both prisoners and guards in this manner served to enhance group identity and reduce individual uniqueness within the two groups. The khaki uniforms were intended to convey a military attitude, while the whistle and night-stick were carried as symbols of control and power. The prisoners' uniforms were designed not only to deindividuate the prisoners but to be humiliating and serve as symbols of their dependence and subservience. The ankle chain was a constant reminder (even during their sleep when it hit the other ankle) of the oppressiveness of the environment. The stocking cap removed any distinctiveness associated with hair length, color or style (as does shaving of heads in some "real" prisons and the military). The ill-fitting uniforms made the prisoners feel awkward in their movements; since these "dresses" were worn without undergarments, the uniforms forced them to assume unfamiliar postures, more like those of a woman than a man—another part of the emasculating process of becoming a prisoner.

Induction Procedure

With the cooperation of the Palo Alto City Police Department all of the subjects assigned to the prisoner treatment were unexpectedly "arrested" at their residences. A police officer charged them with suspicion of burglary or armed robbery, advised them of their legal rights, handcuffed them, thoroughly searched them (often as curious neighbors looked on) and carried them off to the police station in the rear of the police car. At the station they went through the standard routines of being fingerprinted, having an identification file prepared and then being placed in a detention cell. Each prisoner was blindfolded and subsequently driven by one of the experimenters and a subject-guard to our mock prison. Throughout the entire arrest procedure, the police officers involved maintained a formal, serious attitude, avoiding answering any questions of clarification as to the relation of this "arrest" to the mock prison study.

Upon arrival at our experimental prison, each prisoner was stripped, sprayed with a delousing preparation (a deodorant spray) and made to stand alone naked for a while in the cell yard. After being given the uniform described previously and having an I.D. picture taken ("mug shot"), the prisoner was put in his cell and ordered to remain silent.

Administrative Routine

When all the cells were occupied, the warden greeted the prisoners and read them the rules of the institution (developed by the guards and the warden). They were to be memorized and to be followed. Prisoners were to be referred to only by the number on their uniforms, also in an effort to depersonalize them.

The prisoners were to be served three bland meals per day, were allowed three supervised toilet visits, and given two hours daily for the privilege of reading or letterwriting. Work assignments were issued for which the prisoners were to receive an hourly wage to constitute their \$15 daily payment. Two visiting periods per week were scheduled, as were movie rights and exercise periods. Three times a day all prisoners were lined up for a "count" (one on each guard work-shift). The initial purpose of the "count" was to ascertain that all prisoners were present, and to test them on their knowledge of the rules and their I.D. numbers. The first perfunctory counts lasted only about ten minutes, but on each successive day (or night) they were spontaneously increased in duration until some lasted several hours. Many of the pre-established features of administrative routine were modified or abandoned by the guards, and some privileges were forgotten by the staff over the course of study.

RESULTS

Overview

Although it is difficult to anticipate exactly what the influence of incarceration will be upon the individuals who are subjected to it and those charged with its maintenance, especially in a simulated reproduction, the results of the present experiment support many commonly held conceptions of prison life and validate anecdotal evidence supplied by articulate ex-convicts. The environment of arbitrary custody had great impact upon the affective states of both guards and prisoners as well as upon the interpersonal processes taking place between and within those role-groups.

In general, guards and prisoners showed a marked tendency toward increased negativity of affect, and their overall outlook became increasingly negative. As the experiment progressed, prisoners expressed intentions to do harm to others more frequently. For both prisoners

and guards, self-evaluations were more deprecating as the experience of the prison environment became internalized.

Overt behavior was generally consistent with the subjective self-reports and affective expressions of the subjects. Despite the fact that guards and prisoners were essentially free to engage in any form of interaction (positive or negative, supportive or affrontive, etc.), the characteristic nature of their encounters tended to be negative, hostile, affrontive and dehumanizing. Prisoners immediately adopted a generally passive response mode while guards assumed a very active initiative role in all interactions. Throughout the experiment, commands were the most frequent form of verbal behavior and, generally, verbal exchanges were strikingly impersonal, with few references to individual identity. Although it was clear to all subjects that the experimenters would not permit physical violence to take place, varieties of less direct aggressive behavior were observed frequently (especially on the part of guards). In lieu of physical violence, verbal affronts were used as one of the most frequent forms of interpersonal contact between guards and prisoners.

The most dramatic evidence of the impact of this situation upon the participants was seen in the gross reactions of five prisoners who had to be released because of extreme emotional depression, crying, rage and acute anxiety. The pattern of symptoms was quite similar in four of the subjects and began as early as the second day of imprisonment. The fifth subject was released after being treated for a psychosomatic rash which covered portions of his body. Of the remaining prisoners, only two said they were not willing to forfeit the money they had earned in return for being "paroled." When the experiment was terminated prematurely after only six days, all the remaining prisoners were delighted by their unexpected good fortune. In contrast, most of the guards seemed to be distressed by the decision to stop the experiment and it appeared to us that they had become sufficiently involved in their roles that they now enjoyed the extreme control and power which they exercised and were reluctant to give it up. One guard did report being personally upset at the suffering of the prisoners, and claimed to have considered asking to change his role to become one of them—but never did so. None of the guards ever failed to come to work on time for their shift, and indeed, on several occasions guards remained on duty voluntarily and uncomplaining for extra hours—without additional pay.

The extremely pathological reactions which emerged in both groups of subjects testify to the power of the social forces operating, but still there were individual differences seen in styles of coping with this novel experience and in degrees of successful adaptation to it. Half the prisoners did endure the oppressive atmosphere, and not all the guards resorted to hostility. Some guards were tough but fair ("played by the

rules"), some went far beyond their roles to engage in creative cruelty and harassment, while a few were passive and rarely instigated any coercive control over the prisoners.

REALITY OF THE SIMULATION

At this point it seems necessary to confront the critical question of "reality" in the simulated prison environment: were the behaviors observed more than the mere acting out assigned roles convincingly? To be sure, ethical, legal and practical considerations set limits upon the degree to which this situation could approach the conditions existing in actual prisons and penitentiaries. Necessarily absent were some of the most salient aspects of prison life reported by criminologists and documented in the writing of prisoners. There was no involuntary homosexuality, no racism, no physical beatings, no threat to life by prisoners against each other or the guards. Moreover, the maximum anticipated "sentence" was only two weeks and, unlike some prison systems, could not be extended indefinitely for infractions of the internal operating rules of the prison.

In one sense, the profound psychological effects we observed under the relatively minimal prison-like conditions which existed in our mock prison made the results even more significant, and force us to wonder about the devastating impact of chronic incarceration in real prisons. Nevertheless, we must contend with the criticism that our conditions were too minimal to provide a meaningful analogue to existing prisons. It is necessary to demonstrate that the participants in this experiment transcended the conscious limits of their preconceived stereotyped roles and their awareness of the artificiality and limited duration of imprisonment. We feel there is abundant evidence that virtually all of the subjects at one time or another experienced reactions which went well beyond the surface demands of role-playing and penetrated the deep structure of the psychology of imprisonment.

Although instructions about how to behave in the roles of guard or prisoner were not explicitly defined, demand characteristics in the experiment obviously exerted some directing influence. Therefore, it is enlightening to look to circumstances where role demands were minimal, where the subjects believed they were not being observed, or where they should not have been behaving under the constraints imposed by their roles (as in "private" situations), in order to assess whether the role behaviors reflected anything more than public conformity or good acting.

When the private conversations of the prisoners were monitored, we learned that almost all (a full 90 per cent) of what they talked about was directly related to immediate prison conditions, that is, food, privileges, punishment, guard harassment, etc. Only one-tenth of the time did

their conversations deal with their life outside the prison. Consequently, although they had lived together under such intense conditions, the prisoners knew surprisingly little about each other's past history or future plans. This excessive concentration on the vicissitudes of their current situation helped to make the prison experience more oppressive for the prisoners because, instead of escaping from it when they had a chance to do so in the privacy of their cells, the prisoners continued to allow it to dominate their thoughts and social relations. The guards too, rarely exchanged personal information during their relaxation breaks. They either talked about "problem prisoners," other prison topics, or did not talk at all. There were few instances of any personal communication across the two role groups. Moreover, when prisoners referred to other prisoners during interviews, they typically deprecated each other, seemingly adopting the guards' negative attitude.

From post experimental data, we discovered that when individual guards were alone with solitary prisoners and out of range of any recording equipment, as on the way to or in the toilet, harassment often was greater than it was on the "Yard." Similarly, video-taped analyses of total guard aggression showed a daily escalation even after most prisoners had ceased resisting and prisoner deterioration had become visibly obvious to them. Thus, guard aggression was no longer elicited as it was initially in response to perceived threats, but was emitted simply as a "natural" consequence of being in the uniform of a "guard" and asserting the power inherent in that role. In specific instances we noted cases of a guard (who did not know he was being observed) in the early morning hours pacing the Yard as the prisoners slept—vigorously pounding his night stick into his hand while he "kept watch" over his captives. Or another guard who detained an "incorrigible" prisoner in solitary confinement beyond the duration set by the guards' own rules, and then he conspired to keep him in the hole all night while attempting to conceal this information from the experimenters who were thought to be too soft on the prisoners.

In passing we may note an additional point about the nature of role-playing and the extent to which actual behavior is "explained away" by reference to it. It will be recalled that many guards continued to intensify their harassment and aggressive behavior even after the second day of the study, when prisoner deterioration became marked and visible and emotional breakdowns began to occur (in the presence of the guards). When questioned after the study about their persistent affrontive and harassing behavior in the face of prisoner emotional trauma, most guards replied that they were "just playing the role" of a tough guard, although none ever doubted the magnitude or validity of the prisoners' emotional response. The reader may wish to consider to what extremes an individual may go, how great must be the consequences of his behavior

for others, before he can no longer rightfully attribute his actions to "playing a role" and thereby abdicate responsibility.

When introduced to a Catholic priest, many of the role-playing prisoners referred to themselves by their prison number rather than their Christian names. Some even asked him to get a lawyer to help them get out. When a public defender was summoned to interview those prisoners who had not yet been released, almost all of them strenuously demanded that he "bail" them out immediately.

One of the most remarkable incidents of the study occurred during a parole board hearing when each of five prisoners eligible for parole was asked by the senior author whether he would be willing to forfeit all the money earned as a prisoner if he were to be paroled (released from the study). Three of the five prisoners said, "yes," they would be willing to do this. Notice that the original incentive for participating in the study had been the promise of money, and they were, after only four days, prepared to give this up completely. And, more surprisingly, when told that this possibility would have to be discussed with the members of the staff before a decision could be made, each prisoner got up quietly and was escorted by a guard back to his cell. If they regarded themselves simply as "subjects" participating in an experiment for money, there was no longer any incentive to remain in the study and they could have easily escaped this situation which had so clearly become aversive for them by quitting. Yet, so powerful was the control which the situation had come to have over them, so much a reality had this simulated environment become, that they were unable to see that their original and singular motive for remaining no longer obtained, and they returned to their cells to await a "parole" decision by their captors.

The reality of the prison was also attested to by our prison consultant who had spent over 16 years in prison, as well as the priest who had been a prison chaplain and the public defender, all of whom were brought into direct contact with our simulated prison environment. Further, the depressed affect of the prisoners, the guards' willingness to work overtime for no additional pay, the spontaneous use of prison titles and ID numbers in non role-related situations all point to a level of reality as real as any other in the lives of all those who shared this experience.

To understand how an illusion of imprisonment could have become so real, we need now to consider the uses of power by the guards as well as the effects of such power in shaping the prisoner mentality.

PATHOLOGY OF POWER

Being a guard carried with it social status within the prison, a group identity (when wearing the uniform), and above all, the freedom to exercise an unprecedented degree of control over the lives of other

human beings. This control was invariably expressed in terms of sanctions, punishment, demands, and with the threat of manifest physical power. There was no need for the guards to rationally justify a request as they did their ordinary life, and merely to make a demand was sufficient to have it carried out. Many of the guards showed in their behavior and revealed in post-experimental statements that this sense of power was exhilarating.

The use of power was self-aggrandizing and self-perpetuating. The guard power, derived initially from an arbitrary and randomly assigned label, was intensified whenever there was any perceived threat by the prisoners and this new level subsequently became the baseline from which further hostility and harassment would begin. The most hostile guards on each shift moved spontaneously into the leadership roles of giving orders and deciding on punishments. They became role models whose behavior was emulated by other members of the shift. Despite minimal contact between the three separate guard shifts and nearly 16 hours a day spent away from the prison, the absolute level of aggression, as well as more subtle and "creative" forms of aggression manifested, increased in a spiralling function. Not to be tough and arrogant was to be seen as a sign of weakness by the guards, and even those "good" guards who did not get as drawn into the power syndrome as the others respected the implicit norm of *never* contradicting or even interfering with an action of a more hostile guard on their shift.

After the first day of the study, practically all prisoner rights (even such things as the time and conditions of sleeping and eating) came to be redefined by the guards as "privileges" which were to be earned by obedient behavior. Constructive activities such as watching movies or reading (previously planned and suggested by the experimenters) were arbitrarily cancelled until further notice by the guards—and were subsequently never allowed. "Reward," then became granting approval for prisoners to eat, sleep, go to the toilet, talk, smoke a cigarette, wear eyeglasses, or the temporary diminution of harassment. One wonders about the conceptual nature of "positive" reinforcement when subjects are in such conditions of deprivation, and the extent to which even minimally acceptable conditions become rewarding when experienced in the context of such an impoverished environment.

We might also question whether there are meaningful non-violent alternatives as models for behavior modification in real prisons. In a world where men are either powerful or powerless, everyone learns to despise the lack of power in others and in oneself. It seems to us, that prisoners learn to admire power for its own sake—power becoming the ultimate reward. Real prisoners soon learn the means to gain power whether through ingratiation, informing, sexual control of other prisoners or development of powerful cliques. When they are released from

prison, it is likely they will never want to feel so powerless again and will take action to establish and assert a sense of power.

THE PATHOLOGICAL PRISONER SYNDROME

Various coping strategies were employed by our prisoners as they began to react to their perceived loss of personal identity and the arbitrary control of their lives. At first they exhibited disbelief at the total invasion of their privacy, constant surveillance, and atmosphere of oppression in which they were living. Their next response was rebellion, first by the use of direct force, and later with subtle divisive tactics designed to foster distrust among the prisoners. They then tried to work within the system by setting up an elected grievance committee. When that collective action failed to produce meaningful changes in their existence, individual self-interests emerged. The breakdown in prisoner cohesion was the start of social disintegration which gave rise not only to feelings of isolation, but deprecation of other prisoners as well. As noted before, half the prisoners coped with the prison situation by becoming "sick"—extremely disturbed emotionally—as a passive way of demanding attention and help. Others became excessively obedient in trying to be "good" prisoners. They sided with the guards against a solitary fellow prisoner who coped with his situation by refusing to eat. Instead of supporting this final and major act of rebellion, the prisoners treated him as a trouble-maker who deserved to be punished for his disobedience. It is likely that the negative self-regard among the prisoners noted by the end of the study was the product of their coming to believe that the continued hostility toward all of them was justified because they "deserved it" (following Walster, 1966). As the days wore on, the model prisoner reaction was one of passivity, dependence, and flattened affect.

Let us briefly consider some of the relevant processes involved in bringing about these reactions.

Loss of personal identity. For most people identity is conferred by social recognition of one's uniqueness, and established through one's name, dress, appearance, behavior style and history. Living among strangers who do not know your name or history (who refer to you only by number), dressed in a uniform exactly like all other prisoners, not wanting to call attention to one's self because of the unpredictable consequences it might provoke—all led to a weakening of self identity among the prisoners. As they began to lose initiative and emotional responsivity, while acting ever more compliantly, indeed, the prisoners became deindividuated not only to the guards and the observers, but also to themselves.

Arbitrary control. On post-experimental questionnaires, the most frequently mentioned aversive aspect of the prison experience was that

of being subjugated to the patently arbitrary, capricious decisions and rules of the guards. A question by a prisoner as often elicited derogation and aggression as it did a rational answer. Smiling at a joke could be punished in the same way that failing to smile might be. An individual acting in defiance of the rules could bring punishment to innocent cell partners (who became, in effect, "mutually yoked controls"), to himself, or to all.

As the environment became more unpredictable, and previously learned assumptions about a just and orderly world were no longer functional, prisoners ceased to initiate any action. They moved about on orders and when in their cells rarely engaged in any purposeful activity. Their zombie-like reaction was the functional equivalent of the learned helplessness phenomenon reported by Seligman & Grove (1970). Since their behavior did not seem to have any contingent relationship to environmental consequences, the prisoners essentially gave up and stopped behaving. Thus the subjective magnitude of aversiveness was manipulated by the guards not in terms of physical punishment but rather by controlling the psychological dimension of environmental predictability (Singer & Glass, 1972).

Dependency and emasculation. The network of dependency relations established by the guards not only promoted helplessness in the prisoners but served to emasculate them as well. The arbitrary control by the guards put the prisoners at their mercy for even the daily, commonplace functions like going to the toilet. To do so, required publicly obtained permission (not always granted) and then a personal escort to the toilet while blindfolded and handcuffed. The same was true for many other activities ordinarily practiced spontaneously without thought, such as lighting a cigarette, reading a novel, writing a letter, drinking a glass of water, or brushing one's teeth. These were all privileged activities requiring permission and necessitating a prior show of good behavior. These low level dependencies engendered a regressive orientation in the prisoners. Their dependency was defined in terms of the extent of the domain of control over all aspects of their lives which they allowed other individuals (the guards and prison staff) to exercise.

As in real prisons, the assertive, independent, aggressive nature of male prisoners posed a threat which was overcome by a variety of tactics. The prisoner uniforms resembled smocks or dresses, which made them look silly and enabled the guards to refer to them as "sissies" or "girls." Wearing these uniforms without any underclothes forced the prisoners to move and sit in unfamiliar, feminine postures. Any sign of individual rebellion was labelled as indicative of "incurability" and resulted in loss of privileges, solitary confinement, humiliation or punishment of cell mates. Physically smaller guards were able to induce stronger prisoners to act foolishly and obediently. Prisoners were

encouraged to belittle each other publicly during the counts. These and other tactics all served to engender in the prisoners a lessened sense of their masculinity (as defined by their external culture). It followed then, that although the prisoners usually outnumbered the guards during line-ups and counts (nine vs. three) there never was an attempt to directly overpower them. (Interestingly, after the study was terminated, the prisoners expressed the belief that the basis for assignment to guard and prisoner groups was physical size. They perceived the guards were "bigger," when, in fact, there was no difference in average height or weight between these randomly determined groups.)

In conclusion, we believe this demonstration reveals new dimensions in the social psychology of imprisonment worth pursuing in future research. In addition, this research provides a paradigm and information base for studying alternatives to existing guard training, as well as for questioning the basic operating principles on which penal institutions rest. If our mock prison could generate the extent of pathology it did in such a short time, then the punishment of being imprisoned in a real prison does not "fit the crime" for most prisoners—indeed, it far exceeds it! Moreover, since both prisoners and guards are locked into a dynamic, symbiotic relationship which is destructive to their human nature, guards are also society's prisoners.

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