

Criminogenic Effects of the Prison Environment on Inmate Behavior: Some Experimental Evidence*

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September 16, 2004

*Dr. Richard Berk was very gracious and responsive in providing the empirical results analyzed here. He patiently answered our many questions about the data. The opinions expressed in this paper are those of the authors and do not necessarily represent those of Dr. Berk, the Federal Bureau of Prisons, the National Institute of Justice, or the U.S. Department of Justice. The authors of this paper contributed equally, and the order that the authors names appear is arbitrary.

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ABSTRACT

Criminologists and correctional practitioners worry that prisons encourage criminal behavior among inmates, i.e., that prisons are criminogenic. The current study analyzed a subset of the experimental data collected by Berk, Ladd, Graziano, and Baek (2003) to test a new inmate classification system in California and demonstrated that this effect does not necessarily exist. There were 561 male inmates whose equivalent classification scores indicated they had the same level of risk to commit institutional misconduct at the time they were assigned to their initial institution. Half of these inmates were sent to the lowest security level prisons in California, Level I prisons, and the other half were sent to Level III prisons, one step down from the highest security level in California, Level IV. If prisons are criminogenic as a result of cohabiting with other high risk inmates and/or differences in prison practices at different security levels, then the probability of misconduct should vary with the security level to which the inmates were assigned. Instead, inmates were equally likely to commit misconduct in prison regardless of whether they were assigned to a Level I or a Level III prison.

Criminogenic Effects of the Prison Environment on Inmate Behavior: Some Experimental Evidence

Criminologists have long debated whether prisons are criminogenic or rehabilitative. There are arguments for both positions, and this paper discusses three influences upon inmate behavior. The first influence is the criminal propensity that inmates bring with them to prison. Criminal propensity is presumed by most to be manifest in the criminal history of inmates, but the important conceptual point is that it is a characteristic of the individual inmates. The second influence upon inmate behavior is the inmate culture of the prison. Although inmate culture is formed and shaped by other factors, it is primarily developed and constituted among inmates. Organizational sociologists call this the informal structure of the prison. The final influence upon inmate behavior is the formal organization of the prison, or what others call the prison regime (Sparks, Bottoms, & Hay, 1996). Prison regime includes a wide range of factors from the types of inmate programs offered to policies for staff-inmate interactions. Both the second and third factors comprise what is typically thought of as the environmental influences upon inmates.

The present investigation empirically examines what happens to inmate behavior, in particular, misconduct, when inmates with similar criminal histories (propensities) are placed in prisons with different prison environments. The empirical analysis capitalizes on recent research conducted on inmate classification in the California prison system. Berk, Ladd, Graziano, and Baek (2003) used an experimental design to compare the effectiveness of a new classification system to the old one for male inmates. Female inmates were not analyzed because females effectively have only one classification type in California. What is important for our purposes is that some inmates who were assigned a minimum score (Level I) under the old system were assigned a higher score (Level III) under the new system. It is seldom the case that classification

systems are altered in such a manner that inmate classifications change by two levels, but there were 561 inmates whose risk score jumped two levels from a Level I to a Level III classification in California. These inmates, which represent a sub-sample of the 21,734 inmates examined by Berk et al. (2003), were randomly assigned to either a Level I prison or a Level III prison. This scenario provided the opportunity to investigate inmate behavior when the first influence upon criminal behavior (propensity) was held constant and the other two factors (inmate culture and prison regime) varied according to the study design. While the research design does not allow for disentangling the independent effects of inmate culture and prison regime, it does allow for an initial assessment of the joint effect.

The following discussion examines the logic for using inmate misconduct as a proxy for criminal behavior, the three sources of influence upon inmate misconduct (propensity, inmate culture, and prison regime), the design of the study, and the results derived from the data obtained from Berk and his colleagues. The authors recognize that simplified discussions are presented regarding the dimensions of inmate culture, prison regime, and the interactions between the two. The logic of the research design does not depend upon specification of these complexities, but at the same time, the design does allow us to examine whether the prison environment matters, where the environment is comprised of inmate culture and regime. The paper concludes with a discussion of the implications of the findings.

INMATE MISCONDUCT, CRIMINOGENIC?

Much of the behavior that is classified as misconduct in prison would not be criminal behavior if committed outside of the confines of prison. Free citizens do not typically get arrested for not cleaning their room, but an inmate can certainly get a “shot” (a prison charge) if having a messy living area is a chronic problem. Inmates also have rules about what personal

property is allowed, how much time is permitted for phone calls, and how the U.S. mail is used. Violations of any of these rules can result in disciplinary action. On the other hand, there is certainly a subset of prison misconduct that is criminal, including behaviors such as assaults and murders. The question is whether the former type of inmate misconduct can be thought of as expressing criminal behavior in the same way that more serious offenses do. The knee-jerk reaction is to deny that rule violations are indicative of criminal tendencies, but this reaction is not necessarily supported by empirical evidence.

It is fairly well accepted that prior criminal history predicts prison misconduct (Gendreau, Goggin, & Law, 1997). For example, Camp, Gaes, Langan and Saylor (2003) analyzed inmate misconduct categorized into six categories as well as considered all together. Four of the categories primarily covered offenses that are not criminal on the street, including offenses related to the security of the prison (possessing staff clothing, engaging in a demonstration, etc.), inmate accountability (failing to work as instructed, being in an unauthorized area with member of the opposite sex, etc.), property (possessing unauthorized items, lending for profit, etc.), and a residual category of other (being unsanitary or untidy, tattooing or self-mutilation, etc.) (see S. D. Camp et al., 2003: Appendix). The authors found that the initial custody score of the inmate, a measure of previous criminal history used to make a classification assignment, was a significant predictor of three of the four classifications of inmate misconduct. The only type of misconduct that previous criminal history did not predict was security-related misconduct (see S. D. Camp et al., 2003: Table 2). The initial custody score also predicted violent misconduct and all misconduct considered together. The only type of prison “criminal” behavior not predicted by initial custody score was drug misconduct.

Where research has shown that prior criminal history predicts prison misconduct (Gendreau et al., 1997), little research has investigated whether prison misconduct predicts arrests and convictions among released inmates. There are logical reasons and empirical evidence to suggest that prison misconduct is associated with recidivism (Langan, Camp, & Saylor, 2004), at least for prison systems like California where prior criminal activity predicts prison misconduct. Logically, there is much agreement that prior criminal history predicts not only prison misconduct but future criminal behavior as well. This is the basis of life-course analysis and the study of criminal trajectories and desistance (Bushway, Piquero, Broidy, Cauffman, & Mazerolle, 2001; Robbins, 1978; Sampson & Laub, 1993, 2003). Given this relationship, then it follows that prison misconduct and criminal behavior on the street are positively correlated, although not necessarily in a causal sense, unless some very unusual circumstances exist empirically (Duncan, 1975: 11-14). The conclusion arises because both behaviors share a common predictor, prior criminal behavior, and there is empirical evidence that the circumstances that could create a negative correlation between prison misconduct and criminal behavior do not hold. Researchers at the Federal Bureau of Prisons (BOP) demonstrated the corollary relationship between prison misconduct and criminal behavior empirically (Langan et al., 2004). The BOP initial custody classification, which is based almost entirely on past criminal behavior, predicted both prison misconduct and future arrests for federal inmates. The history of prison misconduct also had an independent effect in predicting arrests for released inmates.

In short, while the jury is still out, there appears to be solid support for the notion that inmate misconduct in prison and criminal behavior on the street arise from similar propensities among individuals. Indeed, the very idea of criminal trajectories suggests continuity in behavior

over time even though settings and institutions may change (c.f. Laub & Sampson, 2001). If so, then it is reasonable to speak of the criminogenic effect of prisons when using inmate misconduct as an outcome variable. Alternatively, the term criminogenic can be thought of as having a meaning peculiar to this study in which it references inmate misconduct which may or may not be criminal. If the latter case is true, then the results of the current study do not generalize beyond the effects of prisons upon inmate misconduct.

CRIMINAL PROPENSITY

Criminal propensity has been described by Blumstein (1988a; 1988b; 1986), Gottfredson and Hirschi (1986; 1987), and others to characterize the proclivities (probabilities) of individuals to commit crime (Farrington, 1986). Most criminologists agree that criminal propensity varies across individuals and across the life-course. Criminal propensity is a latent factor that cannot be directly measured, but criminal propensity tends to manifest itself in the behaviors of individuals. Not all behaviors are recorded, but individuals with higher proclivities are expected to have more contacts with law enforcement agencies, all other things being equal.

Prison administrators take advantage of the presumed relationship between criminal propensity and prior criminal record, although they may not frame the issue in this manner. Most correctional agencies classify inmates according to security needs and escape risks, and these classifications usually incorporate different elements from the criminal records of the inmates, including such factors as number of prior arrests, convictions, and incarcerations. Often, attention is given to the seriousness of the instant offense as well as special consideration to any history of violence. In this study, the custody score from the classification system developed by

the California Department of Corrections (CDC) was used as the indicator for criminal propensity.

INMATE CULTURE

Culture is defined as the collective, shared values and norms of the inmates in any given prison. It has been described by classical theorists who have studied and written about prison (Clemmer, 1940; Irwin, 1980; Jacobs, 1977; Sykes, 1958). There are many aspects to inmate culture, but one of the classic features described is the criminal backgrounds that inmates bring to prison. Researchers and advocates who argue that prisons are criminogenic worry that having so many seasoned criminals together in one location provides a catalyst for further criminal activity (Berecochea & Gibbs, 1991; Chen & Shapiro, 2002; Sutherland & Cressey, 1974). This is a concern shared by many prison administrators as well. In addition to the more subtle processes of being exposed to knowledge of the criminal skills and tactics employed by other inmates, there is concern about the damage created by the more overt effects associated with inmates brutalizing one another. It could be that there is a contagion of brutalization similar to the argument Cook and Laub made for juvenile homicide rates (Cook & Laub, 1998). Camp and his colleagues demonstrated that both inmates and staff find certain prisons more dangerous (on dimensions such as perceived safety or perceived gang activity) than others (S. D. Camp, Gaes, Klein-Saffran, Daggett, & Saylor, 2002; S. D. Camp, Gaes, & Saylor, 2002). Propensity to commit crime is such a dominant attribute of the prisoner, it is probably the single most important determinant of inmate norms and values, e.g., inmate culture.

One of the ironic features of the relationship between inmate criminal history and inmate culture is that prison administrators actually manipulate inmate culture when they assign inmates

to institution security levels commensurate to their presumed level of risk. Low security prisoners have in common that they have relatively benign criminal backgrounds. High security prisoners share extensive criminal backgrounds. The ironic result of inmate classification is that by classifying inmates according to their criminal propensities and assigning them to commensurate security levels, correctional systems sort prison environments into different levels of criminogenic prison culture. The higher the average security scores of inmates in any given prison, the more criminogenic the culture.

PRISON REGIMES

The idea of prison regimes comes from the British literature on prisons (Sparks et al., 1996). Regime is intended to capture the formal elements of a prison environment not directly attributable to inmate culture. The discussion of the prison environment is deliberately simplified by not examining the informal structure of the prison associated with the culture among staff members. The present discussion focuses upon inmates, and the formal structure of the prison is probably more influential upon inmates than the informal culture among staff. Since all aspects of the prison environment are entangled in the current study, the research design is not compromised by omitting a discussion of staff culture.

Regime includes security measures to control inmates, prison programs, whether intentionally rehabilitative or not, sophistication of prison management, characteristics of staff, and features of prison strain (crowding, presence or lack of good medical care, quality of food). The latter elements also have been called the pains of imprisonment (Johnson & Toch, 1982). It is clear that prison regime is multidimensional and may even, in some instances, defy classification or categorization. While there are many components of prison regime, a

simplifying assumption made in this paper is that the dominant characteristic is prison security. The higher the institution security level, the greater the level of activity to monitor, control, and suppress inmate crime and misconduct (Foucault, 1995; Garland, 1990).

DESIGN OF THE STUDY

One approach to evaluating the criminogenic nature of prison would be to design a study of individuals with similar criminal trajectories and compare those who were randomly sentenced to a prison term with others who were not. Such a study becomes less feasible and more subject to selection artifacts the more serious the criminal trajectory. A second approach is to evaluate the impact of different “levels” or “intensities” of imprisonment on individuals with similar criminal trajectories. When taking this latter approach, the problem that almost always confronts researchers who want to examine the criminogenic effects of prison is that prison environment factors and inmate criminal propensities are confounded. Higher criminal propensity individuals are assigned to institutions housing inmates who have more serious criminal histories; hence the institutions have a more criminogenic culture. Correspondingly, the prison regimes for these higher risk populations are designed to suppress criminality and misconduct.

Figure 1 presents the cells that are necessary for a fully randomized experiment to separate the effects of criminal propensity, institution culture, and prison regime. A further simplifying assumption is that all dimensions have only two categories. The dimensions are labeled low and high, or numerically I and III since this matches the designations used by California as described below. The logic of the design (as represented in the cells of Figure 1) calls for random assignment of inmates according to a 2 X 2 X 2 grid. The problem with

implementing the design is that it is costly, intrusive, and probably unethical. The issue of ethics arises because inmates could be placed in unnecessarily dangerous situations by the design.

----- Figure 1 about here -----

A design that is more feasible is indicated by the cells marked with O's and X's in Figure 1. Low security inmates are randomly assigned to either a "low" security or "high" security environment defined by the combination of culture and regime – the two O cells. High security inmates are randomly assigned to the same two security level environments – the two X cells. As mentioned previously, because the cultural component of the environment is manipulated by assigning inmates to be housed where their security risk (propensity) does not match those of the other inmates, it is necessary to limit the number of inmates randomly placed in order to avoid contaminating the design.

Between November of 1998 and April of 1999, all new felons committed to California Department of Corrections (CDC) were classified under both the old and new classification systems (for more complete details see Berk et al., 2003). The designation to a prison was determined randomly, by whether the identification number assigned to an inmate was even or odd. Inmates who received odd identification numbers were designated with the score from the new classification system, and inmates with even numbers were designated by the old classification system. For our purposes, this resulted in 561 inmates who were classified as Level I under the old system but Level III under the new system. Of those, 297 of the inmates went to Level I prisons, and the other 264 inmates were designated to Level III prisons. Thus, about half of the prisoners went to a Level I prison, and about half went to a Level III prison. These are the two X-boxes in Figure 1. Unfortunately, there were not sufficient numbers of inmates who classified as Level I under the new classification system and Level III under the old to test the O-

boxes. The behavior of the inmates was tracked for two years, and most inmates remained in custody for this period. Since assignments to the experimental and control groups were random in the study by Berk et al. (2003), the expected proportions of inmates released before the two-year period expired were the same, although the data were not available to test this assumption.

It is a convenience to speak of Level I and Level III prisons as being different entities in California. In reality, Level I and Level III prisons are usually at the same geographical location, but the facilities are separate and the inmates do not come into contact with inmates from the other "prison." In January of 2001, California had 31 different male prisons, all of which housed at least some Level I inmates. On the other hand, only 17 of the prisons had units specifically designed to house Level III inmates (California Department of Corrections, 2001). Berk et al. (2003) provided ample demonstration that the randomization process used as the basis for their experiment produced comparable groups of inmates in the experimental and control groups. Berk et al. (2003) noted that on any background variable examined, the split was proportionate between the experimental and control group inmates. For most inmates, the custody classification changed by only one level if at all, so the group analyzed here was somewhat unique. Almost 9,000 inmates were assigned to either a Level I or a Level III prison during the course of the Berk et al. (2003) study, so the 561 inmates analyzed here are a subset of this group. Nonetheless, the fact that the inmates analyzed here split almost exactly in half in terms of being assigned to a Level I (control group) or Level III facility (experimental group)—a factor not part of the original design of the Berk et al. (2003) study—suggests that the randomization process also produced comparability for this subset of inmates.

According to e-mail and personal discussions, Dr. Berk noted that differences in custody practices between Level I and Level III facilities were not as significant in the California system

as differences between Level IV prisons and all other security levels. In fact, Berk and colleagues (Berk & de Leuw, 1999; Berk et al., 2003) demonstrated that Level IV prisons alone had an impact upon reducing inmate misconduct. So even though Level I and Level III prisons do not differ as much as they do from Level IV prisons, there are meaningful differences between Level I and Level III prisons. For example, there are significant differences in custody and security practices when you move across two levels of the security classification of prisons. Berk et al. (2003: 236) reported that housing was more restrictive in Level III than Level I prisons, as would be expected given the cost of constructing a new prison bed in California. Level I beds in California cost \$19,371 in 2001 as compared to \$65,406 for a new Level III bed (C. G. Camp & Camp, 2002: 91). Likewise, Berk et al. found that misconduct was more prevalent at Level III prisons than at Level I prisons.

Given the relatively small number of inmates involved in the experiment who classified as Level I under the old system and Level III under the new system, it is reasonable to suppose that the prison culture was not unduly influenced by these inmates either at the Level I or Level III prisons. There were 9,656 newly committed inmates that were assigned to an institution security level according to the old classification system and 9,662 inmates assigned according to the new classification system. Of the inmates designated during the study period, 5,705 were assigned to a Level I institution while 3,282 were assigned to a Level III institution. During the course of the study, the entire institutionalized male population in California was somewhere in the vicinity of 140,000.

It is reasonable to assume that inmates in the experiment who served time in Level I facilities were surrounded by inmates with less serious criminal histories than the inmates in the experiment who served time at Level III prisons. But, since there was not a corresponding

random assignment of the custody practices, serving time in prisons with more or less serious inmates is confounded with whatever differences exist in security/custody practices and other regime practices across Level I and Level III prisons in California.

EMPIRICAL RESULTS

Berk et al. (2003: See Table 3) reported that among all inmates initially placed in Level III institutions by the new California classification system, 53 percent of the inmates committed misconduct within two years of their placement. In Level I prisons, 29 percent of the inmates classified under the new system committed misconduct in the first two years. For those inmates classified under the old California system, the controls, the respective percentages were 48 percent and 34 percent. The new classification system did a better job of segregating inmates according to their propensity to become involved in misconduct.

The Berk et al. (2003) misconduct percentages frame the results for the 561 Level III inmates (according to the new California classification system) analyzed in this study who were randomly assigned to Level I and Level III security institutions. Table 1 presents the misconduct levels of the subsample of interest for this study. The table simply presents failure rates for any type of misconduct. The most common forms of misconduct include failing to stand for a prison count, failing to report to a job assignment, and violations of similar prison procedural rules. Thus, these results could change if violent or other types of serious misconduct were analyzed separately, so a separate analysis is presented for serious forms of misconduct.

----- Table 1 about here -----

As the results demonstrate, the percentage of inmates with misconduct did not significantly differ whether the inmates were placed in Level I or Level III prisons. It is also

noteworthy that their misconduct levels were much closer to Level III inmates (62 percent of the inmates examined here versus 53 percent of the experimental group as reported by Berk and his colleagues) than Level I inmates (62 percent of this subset of inmates versus 29 percent of Level I inmates in the Berk study). Given the same propensity to misconduct, at least as it was captured by the CDC classification system, Level III prisons did not seem to encourage inmates to greater participation in prison misconduct. Alternatively, the less violent or criminogenic environment of Level I institutions did not seem to lower the misconduct of Level III inmates.

The results of a power analysis for detecting a difference in misconduct for otherwise similar inmates who were randomly assigned to Level I and Level III prisons are summarized in Figure 2. The rates used in the power analysis were taken from the results reported by Berk et al. (2003), namely that inmate misconduct rates at Level I and III prisons differed by 24 percentage points (53 percent at Level III prisons as compared to 29 percent at Level I prisons). To be on the cautious side, a power analysis was conducted for a percentage point difference of only 21 percentage points as this was the lower bound for the confidence interval calculated here for the Berk et al. results. The graph in Figure 2 demonstrate that with over 260 individuals at each security level, there is more than sufficient power to detect a true effect whether the difference is that observed in the Berk et al. (2003) study or the lower bound from that study. A common rule of thumb is that power at or greater than 0.80 is sufficient. However, the power for the current study was over 99 percent for detecting an effect. Additionally, a difference of 4 percentage points as reported in Table 1 between Level III inmates who were randomly assigned to Level I and Level III prisons was not substantively meaningful.

----- Figure 2 about here -----

The same result found in Table 1 applies when the focus was more serious misconduct (see Table 2). A power analysis was not possible for this comparison because there was no information on the expected rate reported in Berk et al. (2003). But, given the substantive meaning of the small differences noted in Table 2, the lack of a power analysis is not critical. While serious misconduct is much less common than other forms of misconduct, 34 percent of the inmates examined here had an instance of serious misconduct, inmates who were assigned to the less secure Level I prisons were no more likely than inmates assigned to Level III prisons to engage in this prohibited activity. The difference was only 3 percentage points as 33 percent of Level III inmates housed at Level I prisons had a serious infraction and the corresponding rate for inmates housed at Level III prisons was 36 percent. Clearly, inmates with similar propensities for misconduct, as captured by the CDC classification system, were equally likely to engage in serious misconduct whether the prison environment was that of a Level I or Level III prison.

----- Table 2 about here -----

DISCUSSION

Level III inmates randomly assigned to Level I and Level III security environments acted like other inmates in Level III environments. The findings are bolstered by the random assignment of inmates to different security levels, although the experiment was clearly not designed for the purposes of the current analysis. Nonetheless, the limited availability of experimental data in the field of corrections calls for creative uses of the studies that do exist.

Are prisons criminogenic? If the prison environment had an effect on Level III inmates, one would have expected that Level III inmates would have had lower misconduct rates when they were placed in Level I institutions. This effect was not found. Admittedly, a stronger

conclusion would be possible if the O cells represented in Figure 1 were included in the design. A reasonable argument could be advanced that there is actually no difference in the “criminogenic properties” of the Level I and Level III prisons in the California system. However, with the current research design, there was no way to disentangle the independent effects of inmate culture and prison regime. It is entirely possible that more of the Level III inmates housed in Level III prisons with a more criminogenic culture would have engaged in misconduct, but their tendency toward involvement in misconduct was offset by more secure regime practices, especially greater custody measures. Given the similarity in misconduct findings for Level III inmates housed in Level I and Level III prisons, though, this possibility does not seem likely. Such similarity in the percentages of inmates involved in misconduct would have to result from an exact counterbalance of criminogenic and crime (misconduct) prevention forces. Nonetheless, since the possibility exists, it is important to disentangle the effects of inmate culture and prison regime upon the prison environment. The effect of the prison environment has important implications for prisoners and administrators.

While the entanglement of the seriousness of inmates and regimes is important for theory development in corrections, it may not be as important when it comes to policy recommendations and operational decisions. Assuming that it is possible to trust the measurement of misconduct, the policy implication is that it does not matter where a Level III inmate is placed. An analysis of the frequency of offending would nicely complement the current analysis of the likelihood of doing any misconduct, but the data simply were not available for this analysis. Whether placed in a Level I or a Level III prison, about 60 percent of the Level III inmates will become involved in prison misconduct. However, before accepting such a policy

conclusion, it would be important to know if Level I inmates became victims of Level III inmates within a Level I security institution.

CONCLUSIONS

Does this admittedly limited analysis demonstrate once and for all that the inmate culture of male inmates, arising from inmates of similar risk who are housed together, has no impact upon the criminal development or conduct of inmates? No, this conclusion reaches way too far because it was not possible to separate the effects of inmate culture and prison regime in this study. But this analysis does provide a bit of evidence that the types of inmates who are housed together may not be as important as often thought, or at least that the effect can be overcome with adequate security and custody measures and other environmental influences. Since most of the prior literature on the effect of inmate culture has been theoretical, anecdotal and speculative, the current discussion demonstrates that it is possible to analytically and methodologically separate the influence of inmate culture and prison regimes. Other approaches have been taken by Chen and Shapiro (2002) and Berecochea and Gibbs (1991). Unfortunately, the findings of the current study are generally limited to the overall effect of the prison environment which includes both culture and regime factors. Likewise, the lack of comparable data for female inmates did not permit for an examination of the impact of the prison environment on the behavior of females.

These initial results raise a challenge to those theorists who argue exclusively for a criminogenic effect of the prison environment. There are those who argue that regime factors are criminogenic in and of themselves. There may indeed be such an effect that was not uncovered here because of the limitations with the current research design, but the findings presented here

provide fairly solid evidence that the behavior of otherwise similar inmates was not effected by being assigned to Level I as opposed to Level III prisons. If both regime and inmate culture are thought to be criminogenic, then it is hard to imagine the scenario that produced the results produced here. Is anybody willing to argue that the effect of prison regime was criminogenic but the effect of inmate culture was to temper the proclivity of inmates to become involved in misconduct? That is the only logical argument that could be made to support the findings of this study if prison regime is thought to only produce a criminogenic effect. It may be that the criminogenic effect of prison only occurs once an inmate is released from prison and the extra surveillance provided by a prison setting is no longer in place. As a point of fact, following these same inmates after release to examine differences in "street behavior," especially recidivism, is one method of understanding whether the effects of the prison environment upon misconduct persist for truly criminal actions. If the 561 inmates examined in this study are examined for post-release behavior in the community, this would provide additional information about the respective effects of the prison environment, although the analysis still leaves behind the quandary of entangled effects for prison regime and inmate culture.

So, what are the practical implications of this study? The practical implications have to do with housing inmates in a safe and secure environment that is appropriate to security needs. The concern of many, the present authors included, is that the prison environment itself may be punishment above and beyond the effects of incapacitation and removal from society. Chen and Shapiro (2002) claim that they demonstrated this point in an analysis of recidivism of inmates released from federal prisons. Using a discontinuity-regression approach, Chen and Shapiro claim that inmates who were released from more secure prisons were at greater risk of recidivism. Likewise, Berecochea and Gibbs (1991) took advantage of a natural experiment to

compare inmates classified as Level IV in California but designated to Level III prisons. In their study, they found that the Level IV inmates were not distinguishable from Level III inmates at those facilities in terms of misconduct. Of course, it is important to keep in mind that the Level IV inmates sent to Level III prisons were not representative of all Level IV inmates. They were on the low-end in terms of their custody scores. Plus, the Level III prisons they were designated to had tighter security measures than other Level III prisons and probably had Level III inmates with higher custody scores than other Level III prisons. Finally, the study was conducted at a point in time where California was using a a prior implementation of the classification system.

The findings of Chen and Shapiro (2002) and Berecochea and Gibbs (1991) are intuitively appealing even though not supported by the current analysis. For anyone who has spent even an afternoon in prisons similar to the Level I and Level III prisons in California, there is little doubt about which prison would be preferred by most people. Lower security-level prisons tend to be run in a more relaxed fashion and to have fewer restrictions upon the activities of inmates. Since lower security-level prisons are also less expensive to operate, there are strong humanitarian and cost incentives to place inmates in the least restrictive environment possible. The incentive to place inmates in low-security prisons is admittedly counterbalanced by the risk of an inmate abusing the less restrictive environment and embarrassing the agency and/or threatening institutional/public safety by activities such as assaults and escapes.

If there are negative effects associated with placing inmates in higher-security prisons, even when their custody needs justify such placement, then prison administrators are caught between a rock and a hard place. Placing inmates in a lower-security level than otherwise justified jeopardizes the other inmates at the prison as well as potentially threatening public safety. The present analysis demonstrated that 64 percent of the inmates classified as Level I

under the old system in California but Level III under the new classification system and placed in Level I prisons became involved in misconduct as compared to only 29 percent of all inmates sent to Level I prisons under the new classification system. Clearly, the high rate of misconduct suggests that the new classification system was a much better predictor of misconduct and that these inmates did not belong in Level I prisons. On the other hand, administrators may be reluctant to place inmates in more secure prisons if there are unintended negative consequences for inmates that extend beyond the culpability and responsibility of the inmates.

The present analysis, though, demonstrated that there were no negative consequences demonstrated for placing inmates in the higher security-level prisons, at least when prison misconduct was viewed as the indicator of criminal behavior. Using prison misconduct as a proxy for criminal behavior is not without controversy, but as argued earlier, if the same factors predict both prison misconduct and future criminal behavior, then a correlation between prison misconduct and future criminal behavior is expected in most instances. Additionally, there is unpublished research on federal inmates that supports that prison misconduct predicts recidivism, even after controlling for the level of criminal history that inmates bring with them to prison. Even if prison misconduct and criminal behavior are not synonymous, they are related to the same underlying factor, call it what you will. At the very least, prison misconduct can be thought of as a proxy for criminal behavior when inmates are incarcerated.

In short, the study by Berk et al. (2003) demonstrated that the new classification system in California was justified on the grounds of providing greater precision in predicting undesirable prison behavior, e.g., misconduct. The current analysis demonstrated that the new segregation of inmates was benign in the effect it had upon the behavior of those inmates who moved up in security from Level I to Level III prisons. There is considerable and justifiable concern that

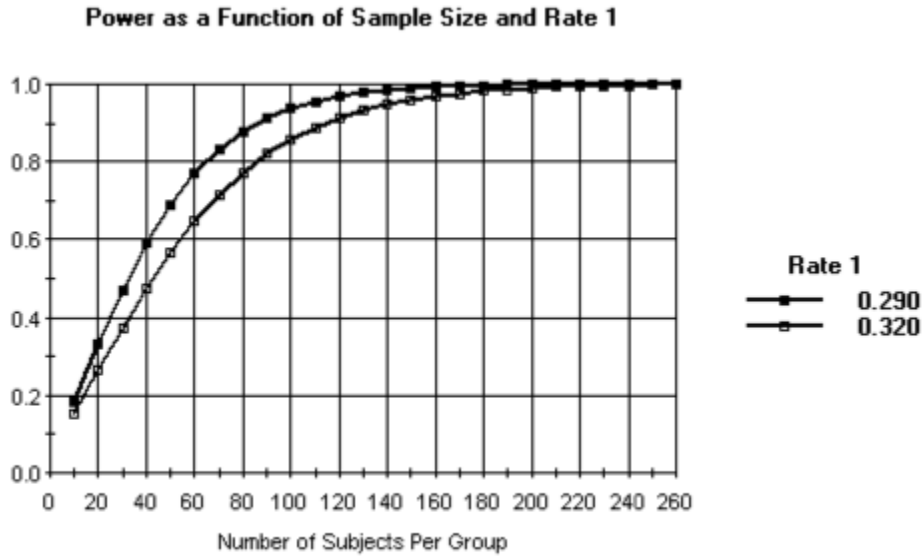
prisons make the behavior of those incarcerated in them less desirable, e.g., that prisons have a criminogenic effect. Presumably, many feel that inmates serve as training schools for criminals. This analysis demonstrated that such logic did not stand up to empirical examination in California. Different prison environments did not alter the behavior of inmates in ways not predicted by the propensity toward crime that the inmates demonstrated prior to entering prison. While the results do not immediately extend to the behavior of inmates once they are released, we expect that future research will demonstrate that differences in prison environments related to regime practices and inmate culture do not necessarily translate into differences in the behaviors of incarcerated felons once they are released. More complete research is needed to confirm the findings presented here and extend the analyses to other prison security levels. As both Berk and his colleagues (Berk & de Leuw, 1999; Berk et al., 2003) and Berecochea and Gibbs (1991) demonstrated, there may be something unique about the prison environments at the highest security-level prisons.

FIGURE 1: Theoretical design needed to separate the effects of criminal propensity, institution culture, and institution regime on inmate misconduct

		Low Individual Propensity (I)	
		Institution Regime	
		Low Risk (I)	High Risk (III)
Institution Culture	Low Risk (I)	O	
	High Risk (III)		O

		High Individual Propensity (III)	
		Institution Regime	
		Low Risk (I)	High Risk (III)
Institution Culture	Low Risk (I)	X	
	High Risk (III)		X

FIGURE 2: Power to Uncover Difference in All Misconduct at Level I and Level III Prison



Note: Effect sizes taken from Berk et al. (2003). They reported a misconduct rate of 29 percent for inmates at Level I prisons and 53 percent for inmates at Level III inmates. A separate analysis not reported here suggested that the difference of 24 percentage points was accurate to plus or minus 3 percentage points given the sample sizes for each type of prison (over 2,000 for both). As such, this power analysis was done for both a rate of 29 percent at Level I prisons (giving the difference reported by Berk et al. of 24 percentage points) and 32 percent at Level I prisons (giving the 21 percentage point difference which was the lower bound of the confidence interval). In both cases, the rate at the Level I prisons was compared to a rate of 53 percent at Level III prisons.

TABLE 1: Misconduct of Level III Inmates Randomly Assigned to Level I and Level III Prisons

	Level I	Level III	Totals
Misconduct	190 (64%)	158 (60%)	348 (62%)
No Misconduct	107 (36%)	106 (40%)	213 (38%)
Totals	297 (100%)	264 (100%)	561 (100%)

$\chi^2=1.008$ with 1 degree of freedom, not statistically significant

TABLE 2: Serious Misconduct of Level III Inmates Randomly Assigned to Level I and Level III Prisons

	Level I	Level III	Totals
Misconduct	97 (33%)	94 (36%)	191 (34%)
No Misconduct	200 (67%)	170 (64%)	370 (66%)
Totals	297 (100%)	264 (100%)	561 (100%)

$\chi^2=0.353$ with 1 degree of freedom, not statistically significant

REFERENCES

- Berecochea, J. E., & Gibbs, J. B. (1991). Inmate Classification: A Correctional Program that Works? *Evaluation Review*, 15(3), 333.
- Berk, R. A., & de Leuw, J. (1999). Evaluation of California's Inmate Classification System Using a Generalized Discontinuity Design. *Journal of the American Statistical Association*, 94(448), 1045-1052.
- Berk, R. A., Ladd, H., Graziano, H., & Baek, J.-H. (2003). Randomized Experiment Testing Inmate Classification Systems. *Criminology & Public Policy*, 2(2), 215-242.
- Blumstein, A., Cohen, J., & Farrington, D. P. (1988a). Criminal career research: Its value for criminology. *Criminology*, 26(1), 1-35.
- Blumstein, A., Cohen, J., & Farrington, D. P. (1988b). Longitudinal and criminal career research: Further clarifications. *Criminology*, 26(1), 57-74.
- Blumstein, A., Cohen, J., Roth, J., & Visher, C. (1986). Introduction: Studying Criminal Careers. In A. Blumstein, J. Cohen, J. Roth & C. Visher (Eds.), *Criminal Careers and Career Criminals* (Vol. 1, pp. 13-20). Washington, DC: National Academy Press.
- Bushway, S. D., Piquero, A. R., Broidy, L. M., Cauffman, E., & Mazerolle, P. (2001). An Empirical Framework for Studying Desistance as a Process. *Criminology*, 39, 491-515.
- California Department of Corrections. (2001). *Monthly Report of Population as of Midnight January 31, 2001 (TPOP-8)*. Sacramento, CA: Data Analysis Unit.
- Camp, C. G., & Camp, G. M. (2002). *The 2001 Corrections Yearbook*. Middletown, CT: Criminal Justice Institute, Inc.

- Camp, S. D., Gaes, G. G., Klein-Saffran, J., Daggett, D. M., & Saylor, W. G. (2002). Using Inmate Survey Data in Assessing Prison Performance: A Case Study Comparing Private and Public Prisons. *Criminal Justice Review*, 27(1), 26-51.
- Camp, S. D., Gaes, G. G., Langan, N. P., & Saylor, W. G. (2003). The Influence of Prisons on Inmate Misconduct: A Multilevel Investigation. *Justice Quarterly*, 20(3), 701-734.
- Camp, S. D., Gaes, G. G., & Saylor, W. G. (2002). Quality of Prison Operations in the U.S. Federal Sector: A Comparison with a Private Prison. *Punishment & Society*, 4(1), 27-52.
- Chen, M. K., & Shapiro, J. M. (2002). *Does Prison Harden Inmates? A Discontinuity-based Approach*. Cambridge, MA: Harvard University.
- Clemmer, D. (1940). *The Prison Community*. Boston, MA: Christopher Publishing House.
- Cook, P. J., & Laub, J. H. (1998). The Unprecedented Epidemic in Youth Violence. *Crime and Justice*, 24, 27.
- Duncan, O. D. (1975). *Introduction to Structural Equation Models*. New York: Academic Press.
- Farrington, D. P. (1986). Age and Crime. In M. Tonry & N. Morris (Eds.), *Crime and Justice* (Vol. 7, pp. 189-250). Chicago: University of Chicago Press.
- Foucault, M. (1995). *Discipline and Punish: The Birth of the Prison*. New York: Vintage Books.
- Garland, D. (1990). *Punishment and Modern Society: A Study in Social Theory*. Chicago: University of Chicago Press.
- Gendreau, P., Goggin, C. E., & Law, M. A. (1997). Predicting Prison Misconduct. *Criminal Justice and Behavior*, 24(4), 414-431.

- Gottfredson, M., & Hirschi, T. (1986). The true value of Lambda would appear to be zero: An essay on career criminals, criminal careers, selective incapacitation, cohort studies, and related topics. *Criminology*, 24(213-234).
- Gottfredson, M., & Hirschi, T. (1987). The Methodological Adequacy of Longitudinal Research on Crime. *Criminology*, 25, 581-614.
- Irwin, J. (1980). *Prisons in Turmoil*. Boston, MA: Little, Brown.
- Jacobs, J. B. (1977). *Stateville: The Penitentiary in Mass Society*. Chicago, IL: University of Chicago Press.
- Johnson, R., & Toch, H. (Eds.). (1982). *The Pains of Imprisonment*. Beverly Hills, CA: Sage.
- Langan, N. P., Camp, S. D., & Saylor, W. G. (2004). *Is Prison Misconduct Analogous to Crime?* Washington, D.C.: Federal Bureau of Prisons.
- Laub, J. H., & Sampson, R. J. (2001). Understanding Desistance from Crime. In M. Tonry (Ed.), *Crime and Justice: A Review of Research* (pp. 1-69). Chicago: University of Chicago Press.
- Robbins, L. N. (1978). Sturdy Childhood Predictors of Adult Antisocial Behavior: Replications from Longitudinal Studies. *Psychological Medicine*, 8, 611-622.
- Sampson, R. J., & Laub, J. H. (1993). *Crime in the Making: Pathways and Turning Points through Life*. Cambridge: Harvard University Press.
- Sampson, R. J., & Laub, J. H. (2003). Life-Course Desisters? Trajectories of Crime among Delinquent Boys Followed to Age 70. *Criminology*, 41(3), 555-592.
- Sparks, R., Bottoms, A., & Hay, W. (1996). *Prisons and the Problem of Order*. New York: Clarendon Press.
- Sutherland, E. H., & Cressey, D. R. (1974). *Criminology* (10th ed.). Philadelphia: Lippincott.

Sykes, G. M. (1958). *Society of Captives: A Study of Maximum Security Prisons*. Princeton, NJ:
Princeton University Press.