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Capital and punishment:supporting the death of deterrence

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CAPITAL AND PUNISHMENT: SUPPORTING THE DEATH OF DETERRENCE

By

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CAPITAL AND PUNISHMENT: SUPPORTING THE DEATH OF DETERRENCE

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Previous research has examined certainty and severity of punishment as serving a deterrent function. This research examines the effects of economic, cultural, and social capital, as well as the effects of certainty, severity, and prior punishment on likelihood of re-offending. Data collected at the Central Mississippi Correctional Facility suggest that traditional deterrence indicators are insufficient for predicting likelihood of re-offending. This research finds that prior punishment increases likelihood of re-offending, a finding completely counter to that of traditional deterrence. Re-offending may be best understood by considering the effects of punishment on increasing prison capital and decreasing real world capital. The argument is that inmates consider their potential in the real world as compared to that in a prison when reporting likelihood of re-offending. Such considerations should better explain likelihood of re-offending as compared to traditional deterrence indicators, such as certainty, severity, and prior punishment.

DEDICATION

I would like to dedicate this research to my parents, Danny and Susan Cook, for their sacrifices to ensure that their children would “have it better” than they did.

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The author expresses sincere appreciation to the many people who made this project possible. First of all, many thanks to my committee chairman, Dr. Peter B. Wood. My interests have been deeply impacted by his lectures and expertise on this subject over the past few years. He also helped me pull things together when they seemed to be falling apart, and for that I am most grateful. I would also like to thank the other members of my thesis committee, namely, Dr. R. Gregory Dunaway and Dr. Troy C. Blanchard, whose time, suggestions, and encouragement, have no doubt made this project possible. Finally, the author would like to thank Dr. Lynn Hempel, for introducing me to the stratification concepts that were used to guide this research, and Dr. Xiaohe Xu, for teaching me the statistical tools and methods that were necessary for the completion of this project.

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CHAPTER I

INTRODUCTION

Besides the death penalty, prison would seem to be the most severe penalty for committing crime. However, research has shown that inmates differ in their perceived severity of different sanctions (Wood and Grasmick, 1999; Crouch, 1993; Petersilia, 1990; Petersilia and Deschenes, 1994a; Petersilia and Deschenes, 1994b; Spelman, 1995; May et al., 2005; Wood and May, 2003; Apospori and Alpert, 1993), and many prisoners report that they are likely to re-offend when returning to society, even knowing that being caught would certainly land them back in prison. By choosing to re-offend even when knowing the consequences, offenders are willing to risk prison once again. With this in mind, it is important to discover if and how previous punishment may increase likelihood of re-offending.

The deterrence and rational choice theories assume that potential offenders will calculate the costs and benefits of offending before they decide whether or not to commit a crime. If prison is viewed as the most severe punishment aside from the death penalty, it makes sense that juries request and judges hand down lengthier prison sentences in hopes of deterring a particular offender from committing crime again (specific deterrence) as well as in hopes of deterring the general public from committing similar crimes (general deterrence). If potential offenders, as well as previous offenders, feel that

punishment will be certain and severe, and if the costs of committing crime outweigh the benefits, the offender will refrain from criminal activity. If this were true, crime rates would be significantly lower, and there would be no need for this discussion.

Deterrence theory suggests that the certainty and severity of sanctions should influence individuals not to commit crime. If prison, or arguably the most severe sanction besides the death penalty, truly serves as a deterrent to criminal offending, then why is it that previous offenders choose to commit another crime? If prison serves as a specific deterrent, it should deter future criminal behavior of current inmates due to its severe nature; however, the reentry trends in the United States refute this claim. The Bureau of Justice Statistics reports on the percent of released prisoners who are rearrested within three years. The percentage of re-arrest for violent, property, drug, and public order crimes range anywhere from 60 to 80, and the percentage of prisoners rearrested for all crimes combined is about 70 (Hughes and Wilson, 2006). Analysis of data collected from over 700 inmates at the Central Mississippi Correctional Facility also calls into question the deterrent effect of prison as a punishment. In fact, Table 1.1 shows that just over half of the inmates reported at least some likelihood of re-offending upon release from prison. If prison truly served as a deterrent, then one could expect very low numbers for self-reported likelihood of re-offending upon release.

Table 1.1. Inmates Self-Reported Likelihood of Re-Offending

Likelihood of Re-offending	Frequency	Percent
No likelihood	343	48.6%
Some likelihood	363	51.4%
Total	706	100%

Even with severe sanctions, people will still choose to offend. This does not mean that the perceived certainty and severity of criminal sanctions has no effect on offending. These perceptions may be better at deterring some types of people as opposed to others, but that is beyond the scope of this paper. Deterrence may have some effect on offending, but I feel that the costs and benefits associated with offending may be best understood in terms of opportunities (conceptualized as forms of capital) in two distinct realms: prison and the real world.

This thesis will test elements of a deterrence model against elements of a proposed capital model by gauging the relative effects of economic, cultural, and social capital, as well as the effects of prior punishment and the perceived certainty and severity of prison sanctions, on inmates' likelihood of re-offending upon release. More specifically, the proposed research will examine how economic, cultural, and social capital affect self-reported likelihood of re-offending upon release, and if these indicators are better suited for explaining offending as compared to those included in the deterrence model. This thesis seeks to examine why most inmates self-report a likelihood of re-

offending upon release, a point that blatantly contradicts punishment's supposed deterrent effect.

To better understand likelihood of re-offending, capital and deterrence concepts will be reviewed. Then, a proposed capital model will be tested against a deterrence model of re-offending by using data collected from inmates at the Central Mississippi Correctional Facility.

CHAPTER II

LITERATURE REVIEW

While the deterrence literature may help explain why some inmates are less likely to re-offend upon release, it is argued here that the decision to re-offend depends not only on the supposed certainty and severity of a prison sentence, but on the perceived prison experience as compared to the offender's perceived experience in the "real world." If the offender does not re-offend, then he or she is free to remain in society; however, if the offender does decide to commit another crime upon release, then that offender will more than likely be returned to prison and cut off from the rest of the world for a period of time. Because of this, prison can be viewed as its own society, and when looking at regular society and prison society, it becomes possible to apply stratification concepts to understand how offenders would live both experiences. In talking about societies, the concepts of economic, cultural, and social capital should explain variation in the likelihood of re-offending by inmates.

When considering human interaction, one must consider where the interaction is taking place. Kendall defines a society as "a large social grouping that shares the same geographical territory and is subject to the same political authority and dominant cultural expectations" (2004:4). When an offender enters into prison, he is essentially leaving one society and entering a new one with its own territory, authority, and expectations.

According to Sykes (1954), when an offender enters a prison, he is stripped of traditional status symbols, and a new hierarchy exists with different symbols coming into play.

There seems to be agreement throughout the literature about what is seen as important in a prison. It becomes apparent that the things seen as important in society at large may not be seen as important in a prison society. While such notions can be drawn out of the literature, there has been no direct attempt at applying theories of class or capital to prison populations. Published works give us a glimpse behind prison walls, and let us into the minds of inmates and personnel, but what is lacking is an understanding of the social structure within prisons and an understanding of what characteristics are most important in that structure. If we can understand the prison social structure as compared to the outside world and what factors give an individual the best opportunities in both structures, we may shed light on offenders' likelihood of re-offending upon release from prison. It is not the purpose of this paper to rehash stratification concepts, nor is it the purpose to say that one stratification theory is superior to another. It does mean to argue that such concepts could prove useful in explaining offenders' likelihood of re-offending upon release as compared to explanations offered by deterrence theory. To illustrate the argument, concepts from the stratification literature, in particular, those from Pierre Bourdieu, will be used.

Stratification Concepts

Volume and composition of capital are important concepts for Bourdieu (1984 and 1985). In referring to capital, Bourdieu feels that there are three main forms. The

first form of capital, economic, refers to things such as money and property. Cultural capital is also important for Bourdieu, by which he means such things as family background, educational credentials, artistic abilities and appreciations, etc. The third form of capital important for Bourdieu is social capital, which refers to one's access to networks of influence and support.

Bourdieu points out that the different forms of capital have different values depending on the field of interaction, and that individuals and institutions become distinguished from one another by acquiring capital that is useful in the field. In essence, each social field becomes an arena in which there is a struggle for resources, and actors are positioned within those fields according to volume and composition of capital they have. In social fields of interaction, dominant and subordinate groups strategically struggle for power. They use their different forms of capital to maximize their potential within that field.

It is the purpose of this study to reveal the processes and mechanisms that may underlie an offender's likelihood of re-offending upon release from prison. If we can understand how an inmate's volume and composition of capital within a regular society versus within a prison society affect his or her experience within those respective societies, then we can better understand why an inmate would be more likely to re-offend.

Comparing Societal Experiences using Bourdieu

Bourdieu's concepts of social field and capital can help us understand the experience of offenders within a prison and in society at large.

Social Field. Since fields are structured spaces of positions in which all human actions occur, a prison, just as society at large, qualifies as a social field. If prison is viewed as a field of interaction with its own set of rules, it should be possible to uncover the objective conditions of existence and the subjective dispositions stemming from those conditions that would influence individuals within each particular society. Since different forms of capital have different values depending on the field of interaction, a discussion of these forms of capital and their power in maximizing an offender's potential in the real world as compared to prison society will be useful.

Economic Capital. In regular society, economic capital would refer to things such as money and property. In prison, goods and services make up the majority of economic capital. The prison black-market system makes sure that an inmate's basic needs are met. According to Hassine (2004), in a prison where nothing works, everything is for sale.

Economic capital is important for some inmates, but many inmates have no more than what is needed to survive. If a person has other forms of capital to use in a prison field, he has little use for economic capital. In prisons, economic capital takes different forms and offers potential to those who may have ranked low in economic capital on the outside. It can be assumed that those ranking high in economic capital in the real world should be less likely to re-offend upon release. Those ranking low in real world economic capital should be more likely to re-offend upon release.

Cultural Capital. In real world society, cultural capital includes educational credentials, artistic abilities, particular tastes, etc. Family background and reputation are also important cultural capital indicators. If family members have been incarcerated, the stigma of incarceration is passed on to the rest of the family. A reputation of incarceration is not a particularly positive characteristic to have in the real world, therefore, reducing cultural capital; however, such a reputation may actually increase one's cultural capital inside of prison.

Experience is also an indicator of cultural capital. In talking about their prison experiences, many inmates refer to the advice that older inmates give them. They admit that prison life is unlike anything an average citizen has ever experienced, and because of this, a new prisoner needs advice if he is to survive on the inside. Prisons have their own sets of rules, and inmates who abide by these rules have the best chance of surviving. The convict code refers to the rules that prisoners should abide by in order to survive on the inside (Johnson and Toch, 2000 and Santos, 2004). Those with experience in prison have high cultural capital not only because they can give advice but also because of their understanding of the convict code of conduct, and this experience, or cultural capital, can be passed on to new inmates. Because of their need for advice and lack of understanding of this code, new inmates are low in cultural capital in prison.

In prison, one's crime success stories hold as much weight as one's job success stories hold on the outside. Once committed to prison, it is not educational credentials or legitimate careers that matter. In the words of an inmate, "When a man commits to the subculture of prison, definitions of honor, respect, integrity, and character take on entirely

new meanings that are completely at odds with the world of noncriminals" (Santos, 2004:100). Those who have mastered the art of deception and who have eluded the attention of law enforcement are high in prison cultural capital. At the same time, those who did not have successful criminal careers and who lack the ability to successfully commit crime rank low in prison cultural capital.

Social Capital. In the real world, social capital is seen as such things as access to social networks and support. Having a close family and "friends in high places" would constitute social capital on the outside; however, once in prison, close family members and friends cannot help the offender if they do not have contacts on the inside. In prison, social capital refers to the same types of things, but it may be an even more important form of capital to possess when in prison. Having access to social networks can provide security, favor, money, and goods and services. Those who have friends and family already in prison would seem to adjust better to prison than those who do not because friends and relatives can provide the new inmate with information, goods and services, and protection (Crouch, 1993; Wood and May, 2003). This social capital can help to reduce anxiety in many ways. These inmates know what to expect when going in, they will already know someone once on the inside, they will not be as vulnerable to attacks because they will have someone to vouch for their reputation, and they will adjust better to the prison society overall as compared to those lacking social capital inside of prison.

The right kind of people to know inside of prison are not necessarily the right kind of people to know on the outside, so one cannot assume that having social capital on the outside will lead to social capital on the inside. Social capital on the outside comes

from positive sources such as family, non-deviant peers, and colleagues. Those who do not have positive relationships on the outside may find comfort from more deviant sources. Once admitted to prison, an offender is more likely to come into contact with deviants and others who can offer social capital within the prison. When considering how different types of people and relationships bestow social capital in the different societies, it becomes clear that those ranking low in social capital on the outside may find more social capital on the inside. Those ranking low in social capital on the outside should be more likely to re-offend upon release, and those ranking high in social capital on the outside should be less likely to re-offend.

Deterrence and Rational Choice

For a criminal sanction to deter, potential offenders must view that sanction as severe and likely to occur. Beyleveld (1979) points out potential offenders must have knowledge of a particular sanction, and they must have certain beliefs about that sanction. If potential offenders view sanctions as certain and severe, they will not engage in crime. In the United States, prison sentences are designed to deter, but as the number of inmates have risen, there has been no substantial drop in crime.

Keeping these things in mind, one must consider the source of criminal sanctions. Criminal sanctions are designed by law-abiding citizens, and these citizens base their ideas about what is appropriate punishment on the norms held by the majority of citizens. In designing sanctions, lawmakers have overlooked some very important facts. First of all, many offenders outright reject the norms of society at large. Secondly, most offenders come from communities with substandard living conditions. If offenders'

values, norms, and standards differ from those of the majority of citizens, then their views of particular sanctions may also differ. The idea that prison conditions are deplorable and threatening may hold true for the majority of citizens, but one cannot assume that prison conditions will be received in the same manner for the majority of offenders (Petersilia, 1990).

Certainty. According to deterrence literature, people are deterred from committing crime if the punishment for that crime is certain or likely to occur. Even if potential offenders believe that punishment is certain to occur, that perceived certainty may affect different people in different ways. For example, blacks and whites should differ in their perceptions of certainty of punishment because blacks are more likely to be punished because of an assumed racial bias in the criminal justice system. This being the case, it seems that blacks would be less likely to self-report re-offending upon release than whites due to their perceived certainty of punishment; however, perceived certainty of punishment does not seem to deter all offenders equally. It has been argued that prison sanctions would serve more as a deterrent if the offender's reputation or social standing was diminished in light of the punishment (Zimring and Hawkins, 1973). It is true, particularly in the white community, going to prison would injure a person's reputation and social standing in that community; however, we cannot assume that this happens in all communities. In fact, going to prison may actually enhance some offenders' statuses in their communities (Fleisher, 1995). Tunnell (1992) points out that criminal behavior is not looked down on by associates of an offender because criminal behavior is not viewed as deviant, but as normal behavior. Since almost one in three African American males

will come under the control of the criminal justice system, going to prison is almost like a right of passage, especially in the black community (Pettit and Western, 2004; Irwin and Austin, 1997; Garland, 2001; Mauer, 1999). Keeping these things in mind, it seems unlikely that the certainty of prison sanctions would serve as an equal deterrent for all offenders.

Severity. Keeping in line with the norms and values of society at large, it would make sense that most offenders should prefer to stay in the community rather than face the harsh conditions of a prison setting. It is precisely these norms and values that influence the perceptions of sanction severity by lawmakers and law-abiding citizens in a society; however, research has shown that offenders differ in their perceptions of sanction severity. This being the case, one must assume that all offenders will not be equally deterred from re-offending upon release.

To better understand offenders' perceptions of sanction severity, a brief discussion of prison vs. alternative sanctions may be helpful. When considering a continuum of sanction severity, one might assume that regular probation would be the least severe, since it allows the offender to stay in the community, and it does not necessarily require him to hold down a job or attend treatment programs. Of course, the offender is expected to meet certain requirements and is subject to searches and drug tests, but for the most part, he is allowed to remain in the community and live a normal life, at least compared to a life lived in prison.

Aside from regular probation, there are other sanctions that allow the offender to remain in the community. The different sanctions have their own particular stipulations

and requirements, and the degree of supervision varies with each; however, alternative sanctions, with the exception of county jail and boot camp, allow the offender to remain a part of the larger society. By abiding by the conditions set forth in each alternative sanction, the offender is able to avoid the seemingly harsh conditions associated with prison life. It seems that offenders would prefer any alternative sanction, except for maybe county jail or boot camp, to a prison sentence.

In light of such questions, research has been conducted to rank offenders' perceptions of sanction severity (Wood and Grasmick, 1999; Crouch, 1993; Fleisher, 1995; Petersilia, 1990; Petersilia and Deschenes, 1994a; Petersilia and Deschenes, 1994b; Spelman, 1995; May et al., 2005; Wood and May, 2003; Apospori and Alpert, 1993). Research has found that offenders would rather serve a prison sentence and be released than waste time serving alternative sanctions with many tough stipulations, increasing the risk that they will not meet some condition and be revoked to prison anyway (Petersilia, 1990; Wood and May, 2003). Spelman (1995) found that there were several other sanctions that were ranked as severe as a one year prison term. Wood and Grasmick (1999) found that offenders consistently ranked prison as less severe than boot camp, county jail, and day reporting. In reviewing the literature, it seems that probation and imprisonment do not fall on the low and high ends of the continuum of sanction severity (Morris and Tonry, 1990; Wood and May, 2003).

The purpose of discussing prison vs. alternative sanctions is to show that offenders differ in their views of sanction severity. This discussion also makes it clear that many offenders do not view prison as a severe sanction, at least in comparison to

other sanctions that would allow the offender to remain in the community. This leads one to wonder if there are structural conditions in society at large as compared to prison society that would cause an offender to view prison as less severe. Regardless of the reasons, we must be careful in assuming that the severity of prison sanctions would deter an inmate from re-offending.

In addition to the fact that offenders may not perceive prison as an extremely severe sanction, researchers have also found that preferences for certain sanctions vary by offender characteristics (Spelman, 1995; Apospori and Alpert, 1993; Petersilia and Deschenes, 1994b; Crouch, 1993; and Wood and Grasmick, 1999). In regard to age, older offenders seem to prefer prison over probation (Crouch, 1993; Spelman, 1995). Petersilia and Deschenes (1994a, 1994b) found that married offenders, or those who had children, ranked prison as more severe than their single counterparts. This may be why Wood and Grasmick (1999) found significant gender differences in rankings of sanction severity and willingness to serve alternative sanctions.

One of the most significant differences in the perceptions of sanction severity comes from race. Crouch (1993) and Spelman (1995) find that race is the strongest predictor of prison preferences. Crouch feels that blacks adjust better to prison than whites because of their relationships to those already in prison. He notes that it is fairly common for blacks to find friends and relatives in prison who can provide them with information, protection, as well as material goods. He also suggests that many blacks coming from urban areas are used to the violence and deprivations that are associated with prison terms.

Wood and May (2003), May et al. (2005), and May et al. (2003) offer further evidence to Crouch's claim. Wood and May (2003) found that blacks were more likely than whites to choose prison rather than an alternative. In fact, they found that whites were willing to serve two times the amount of an alternative than were blacks to avoid specific amounts of time in prison. Not only are whites less likely to choose prison over alternatives, but they are also more likely to do more of an alternative than are blacks to avoid prison. In fact, 37% of blacks, compared to 24.5% of whites reported that "in general, living in prison is easier than living outside prison" (Wood and May, 2003). Such statements offer proof that offenders differ in their perceived severity of prison sanctions, and considering these differing perceptions of sanctions severity, offenders will differ in their likelihood of re-offending.

Prior Punishment. Besides perceived certainty and severity of punishment, an offender's prior punishment should also serve as a deterrent. If one commits a crime and is punished for that crime, then the costs associated with that crime should outweigh the benefits of committing that crime. Research has shown that this is not necessarily the case. When considering previous incarceration, Spelman (1995) found that those who had served a previous prison term were more likely to choose another prison term over intensive supervision probation. This is further evidence that society's perceptions of sanction severity and the deterrent effect of prior punishment should be called into question.

CHAPTER III

CONCEPTUAL MODELS AND HYPOTHESES

A review of the literature suggests that both stratification and deterrence concepts are useful in explaining offending; however, their relative impacts are unknown. It is possible that stratification concepts proposed in the maximum capital model will explain more variance in inmates' self-reported likelihood of re-offending than will the deterrence concepts offered by the deterrence model. To test this assumption, the proposed research will examine the relative effects of economic, cultural, and social capital, as well as the effects of prior punishment and perceived certainty and severity of prison sanctions, on inmates' self-reported likelihood of re-offending upon release.

Maximum Capital Model

What constitutes the different forms of capital will differ from one society to the next or from one field to the next. When making the assumption that those having high compositions of real world capital will have less opportunity to obtain high compositions of prison capital, and that those having low compositions of real world capital will have better opportunities at obtaining capital in prison societies, one can envision a reversal of the social hierarchy when going from the real world to a prison society. Offenders will be more likely to choose a society where they can maximize their volume and composition of existing capital. This proposed relationship is explained in Figure 3.1.

The Maximum Capital Model of Re-offending helps explain why some inmates are more likely to re-offend than are others.

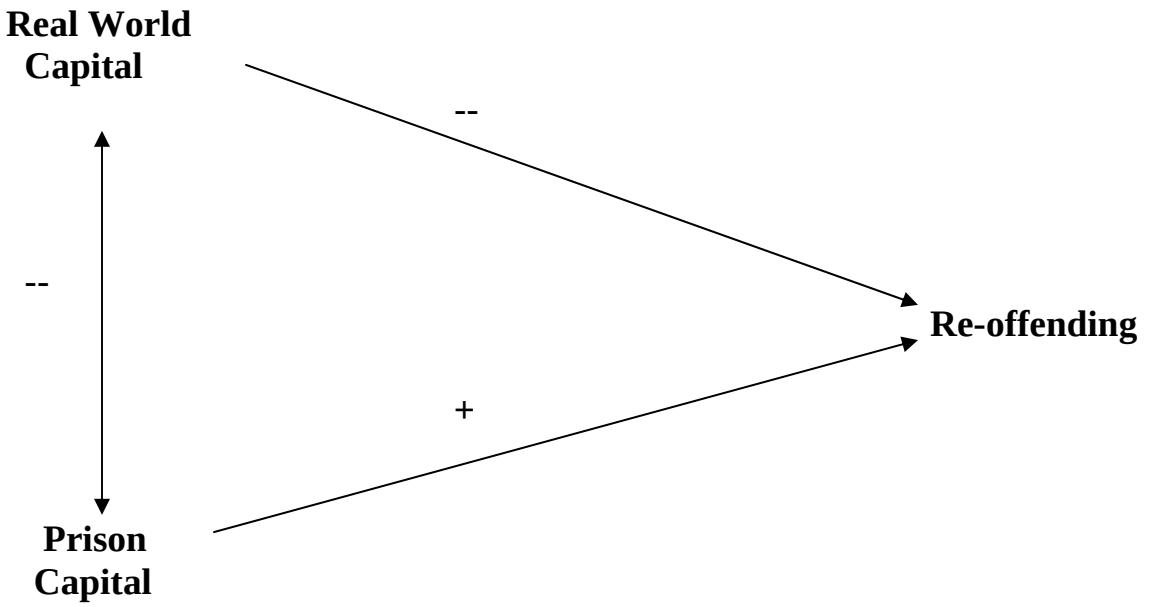

Figure 3.1. Maximum Capital Model of Re-Offending

The present study aims to measure an inmate's composition of real world capital. The proposed relationship shows that those ranking high in real world social capital will be less likely to re-offend upon release. Even though the respondents' compositions of prison capital will not be directly measured in this study, inferences can be made after analyzing indicators that may decrease real world capital.

Specific Deterrence Model

Several important elements can be drawn out of the deterrence literature to explain offending. Those who perceive punishment to be certain and severe should be less likely to offend. Also, those who have experienced prior punishment for criminal activity should be less likely to re-offend because receiving punishment should increase one's perceptions of certainty and severity of punishment. Those who do not perceive punishment for criminal activity to be certain and severe, and those who have not been punished for criminal activity, should be more likely to re-offend. Figure 3.2 illustrates the relationship between deterrence concepts and likelihood of re-offending.

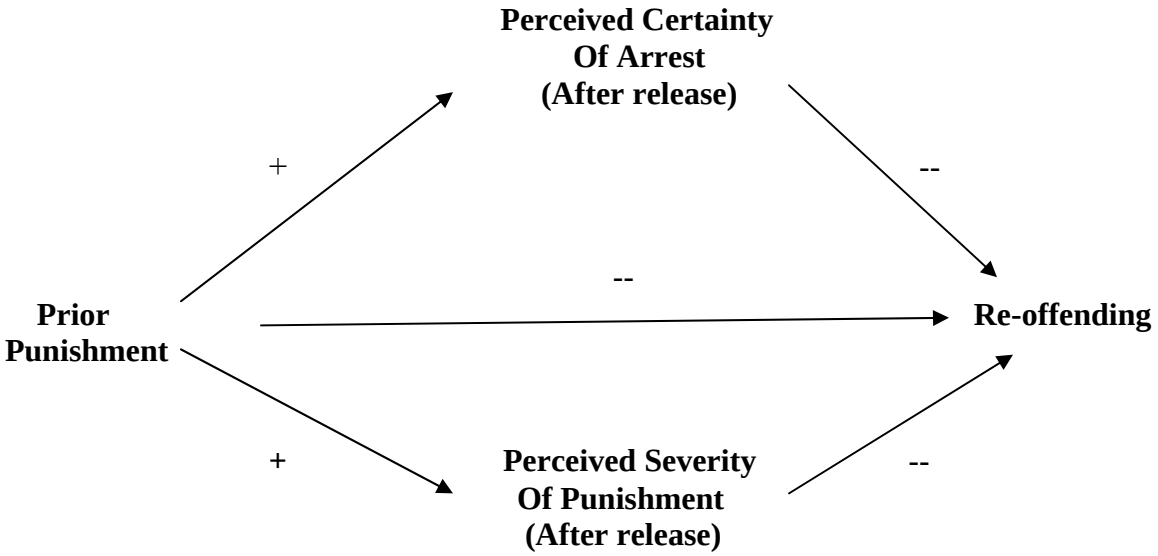

Figure 3.2. Specific Deterrence Model of Re-Offending

Hypotheses

To assess the influence of real world capital indicators, as well as specific deterrence indicators, on inmates' likelihood of re-offending upon release, several hypotheses will be tested:

Hypothesis 1: *Inmates with high real world economic capital will be less likely to re-offend upon release.*

Hypothesis 2: *Inmates with high real world cultural capital will be less likely to re-offend upon release.*

Hypothesis 3: *Inmates with high real world social capital will be less likely to re-offend upon release.*

Hypothesis 4: *Inmates with high perceptions of certainty of punishment will be less likely to re-offend upon release.*

Hypothesis 5: *Inmates with high perceptions of severity of punishment will be less likely to re-offend upon release.*

Hypothesis 6: *Inmates who have received prior punishment will be less likely to re-offend upon release.*

The next chapter discusses the data, the dependent variable, the independent and control variables that will be used to test the hypotheses, and statistical methods and plans for analysis of the data.

CHAPTER IV

DATA AND METHODS

Data Source

Research hypotheses will be tested using data collected at the Central Mississippi Correctional Facility, the central assessment and reception facility in the state of Mississippi. This correctional facility is the second largest in the state, and it held approximately 3,000 male and female inmates at the time the survey was conducted. Initially, focus groups were held with eight male and eight female inmates to obtain information regarding factors that might initiate or inhibit re-offending upon release from the facility. After reviewing literature and considering comments gathered from the focus group participants, the survey was designed and pre-tested on 21 male and 21 female inmates. After the pre-test, more comments were gathered from the pre-test participants. After consideration of those comments, the survey was revised into the final draft.

Prior to sample selection, administrators from the Department of Corrections were contacted to determine the least disruptive method of surveying the largest number of respondents. In December of 2001 and January of 2002, male and female inmates were surveyed separately in groups. Members of the research team remained in the room to answer questions as well as to ensure that no contact occurred between prison personnel

and respondents. At the conclusion of data collection, the researchers ended up with 726 completed surveys. There were 363 surveys for males, 363 surveys for females, 433 surveys for blacks, and 273 surveys for whites. 30% of all female inmates and 22% of all male inmates at this facility were surveyed. 63.7% of the inmates at this particular facility were black, and the sample was 60.1% black. 35.4% of the inmates at this facility were white, and the sample was 37.9% white. Not only did the researchers aim to survey whites, blacks, males, and females, but they also aimed to survey first-timers and experienced convicts.

Dependent Variable

The dependent variable will be self-reported likelihood of re-offending upon release. Inmates were asked the following question: "Imagine someone like yourself will be released next week. Using the number line below, please circle the likelihood that within three years that person will commit another crime." Respondents could circle from 0 (not at all likely) to 10 (very likely). This study will consider those who report "0" as having no likelihood of re-offending upon release and those who report anything other than "0" as having at least some likelihood of re-offending upon release. So, instead of using the dependent variable as a continuous variable appropriate for OLS regression, I will use it as a dichotomized variable appropriate for logistic regression. The dependent variable will be called "Likelihood of re-offending." Description for the dependent variable is found in Table 4.1.

Independent Variables for Maximum Capital Model

Economic Capital. To measure an inmate's real world economic capital, employment status before incarceration and income from all previous sources the previous year before incarceration will be analyzed. To measure employment status, respondents were asked: "Which of the following best describes your employment status just before incarceration?" Responses included "working full-time," "working part-time," "stayed at home and cared for children," "not working due to disability," "not working but looking for work," "not working and not looking for work," and "retired." This variable will be recoded to show employment and unemployment. "Working full-time" and "working part-time" will be coded as "1" to represent employment. All other responses will be coded as "0" to represent those who were not working prior to incarceration. This variable will be called "Employment."

To measure income, respondents were asked: "About how much money did you make from all sources during the year just before you were incarcerated this time?" Respondents were prompted to simply write the amount in the given blank. Responses ranged from 0 to 360,000. This variable will be called "Money."

Cultural Capital. To measure an inmate's real world cultural capital, the inmate's education and his parents' education will be analyzed. Whether or not the inmate had family members incarcerated and whether or not the inmate's father lived in his or her house while growing up will also be considered. To measure inmates' education levels, respondents were asked: "Circle the highest level or grade of education that you ever

completed in school." Anything less than "12" is considered to be a "drop out." "12" is considered to be a high school/GED graduate. "12" to "15" is considered as "some college," and "16" to "20" is at least a "college degree." "21" was also an option for respondents who received "post high school training but no college." Respondents who reported post high school training but no college were recoded as "12," or high school/GED graduate. After recodes, possible responses for inmates' education could range from 0 to 20. This variable will be called "Education."

In addition to respondents' education levels, inmates were also asked: "On average, what kind of grades did you make while you were in school?" Possible responses were 1= "mostly A's," 2= "mostly B's," 3= "mostly C's," 4= "mostly D's," 5= "mostly F's," and 6= "I never attended school." Responses were reverse coded so that higher numbers represented better grades. "I never attended school" responses were recoded as missing. This variable will be called "Grades."

The education of the inmate's mother and father will also be analyzed. To analyze the education of both father and mother, respondents were asked: "About how much education did your father (or mother) have before you left home? Inmates could respond, 1= "8th grade or less," 2= "some high school," 3= "12th grade (diploma or GED)," 4= "some college," 5= "completed college," 6= "graduate or professional degree," 7= "other," and 8= "don't know." "Other" and "Don't know" responses were listed as missing cases, and the remaining responses were reverse coded so that higher numbers represent higher amounts of education. The variable representing the father's

education will be called “Father’s Education,” and the variable representing the mother’s education will be called “Mother’s Education.”

Whether or not an inmate has had a family member incarcerated will also be considered as an indicator of real world cultural capital. If family members have been incarcerated, it lowers a person’s real world cultural capital; however, this may raise an inmate’s cultural capital in prison. To measure if family members of the inmates have been incarcerated, respondents were asked: “Which of the following family members have been incarcerated? [Circle all that apply]” The responses include “none” as well as numerous family members such as “mother,” “father,” “sister,” and so on down to “aunt/s,” “uncle/s,” and “cousin/s.” A new variable was computed by adding up the number of family members that each respondent reported as having been incarcerated. Number of family members incarcerated ranged from 0 to 13. Those inmates who have had no family members incarcerated will be considered to have more real world cultural capital than those who reply that they have had family members incarcerated. It can also be assumed that having more family members incarcerated increases prison cultural capital. This variable will be called “# Family Incarcerated.”

Inmates were also asked: “How many of the following people lived in the same household with you <u>when you were growing up</u>? [Circle all that apply].” Possible responses included “father,” “mother,” “stepfather,” “stepmother,” and various other family members. Each response was dummy coded as “1” and “0.” If inmate’s father lived in house while growing up, the response was “1.” If not, the response was “0.” Those inmates who report their fathers living at home while they were growing up are

considered to have more real world cultural capital. This variable will be called "Father lived in house."

Social Capital. To measure an inmate's real world social capital, inmates' marital status and parental involvement will be analyzed. Whether or not an inmate will be able to rely on support when released and frequency of communication with family friends will also be considered as social capital. To measure an inmate's marital status, respondents were asked: "What is your marital status now?" Response categories include "never married," "married," "separated," "widowed," "divorced," and "living with someone but not married." One dummy variable will be created to indicate those who are married. Those who report "married" will be coded as "1," and all other responses will be coded as "0." Those who were not married will be used as the reference category. This variable will be called "Married."

Parental involvement will also be considered a form of real world social capital. Respondents were asked: "Before you were incarcerated, were you the primary caregiver, or main person to provide care for your child or children?" Responses included "yes" and "no." One dummy variable was created to represent those who were primary caregivers before incarceration. Those who reported yes to primary caregiver were coded as "1." Those who responded that they were not the primary caregiver or those who did not respond (because they did not have children) were coded as "0." This variable will be called "Caregiver." Those who are married and care for their children are considered to have more real world social capital, and therefore should be less likely to re-offend upon release.

Frequency of communication with family members is also seen as an indicator of real world social capital. To measure the frequencies of communication with family members, respondents were asked: "How often do you communicate with family members who are not incarcerated?" Possible responses were, 1= "never," 2= "daily," 3= "2 to 4 times a week," 4= "once per week," 5= "twice per month," 6= "once per month," 7= "4 to 6 times a year," and 8= "once per year." Responses will be recoded into 1= "never," 2= "once per year," 3= "4 to 6 times per year," 4= "once per month," 5= "twice per month," 6= "once per week," 7= "2 to 4 times per week," and 8= "daily." Higher numbers will represent more real world social capital, and those having more real world social capital should be less likely to re-offend upon release. This variable will be called "Family Communication."

Frequency of communication with friends is also seen as an indicator of real world social capital. To measure the frequencies of communication with friends, respondents were asked: "How often do you communicate with friends who are not incarcerated?" Possible responses were, 1= "never," 2= "daily," 3= "2 to 4 times a week," 4= "once per week," 5= "twice per month," 6= "once per month," 7= "4 to 6 times a year," and 8= "once per year." Responses were recoded into 1= "never," 2= "once per year," 3= "4 to 6 times per year," 4= "once per month," 5= "twice per month," 6= "once per week," 7= "2 to 4 times per week," and 8= "daily." Higher numbers will represent more real world social capital, and those having more real world social capital should be less likely to re-offend upon release. This variable will be called "Friend Communication."

Whether or not an inmate will be able to rely on support upon release will be considered an indicator of real world social capital. Inmates were asked: "Think about your own situation. How likely is it that you will be able to rely on your support system of family and friends when you are released?" Responses were 1= "very likely," 2= "somewhat likely," 3= "not very likely," and 4= "not at all likely." The responses were reverse coded so that 1= "not at all likely," 2= "not very likely," 3= "somewhat likely," and 4= "very likely." Higher numbers will represent more real world social capital, and those having more real world social capital should be less likely to re-offend upon release. This variable will be called "Rely on support." Descriptions for the independent variables in the maximum capital model are given in Table 4.1.

Independent Variables for Specific Deterrence Model

To test the proposed maximum capital model, a specific deterrence model will be tested simultaneously, using variables measuring inmates' perceived certainty and severity of punishment, as well as inmates' prior punishment (a measure of specific deterrence).

Certainty. To measure an inmate's perceived certainty of being rearrested upon re-offending, respondents were asked: "If you commit another crime after you are released, what is the likelihood that you will be arrested for committing that crime?" Response categories ranged from "[0=Not at all likely]" to [10=Very Likely]." Those who report more certainty of re-arrest should be less likely to re-offend upon release. This variable will be called "Certainty of Re-arrest."

Severity. To measure an inmate's perceived severity of prison sanctions, the amount of time an inmate thinks he or she will be given if re-arrested will be analyzed. To measure this, respondents were asked: "Suppose you are released from prison and are arrested again for committing a crime like the one that put you here in prison. How much time do you think you will be given?" Respondents were prompted to fill in the blank with the number of years that they thought they would receive. The longer sentence that an inmate thinks he or she will receive the less likely he or she should be to re-offend upon release. This variable will be called "Severity if re-arrested." The length of an inmate's current sentence will also be analyzed. Respondents were asked: "How long is your current sentence?" This variable will be called "Severity of Sentence." I feel that those who are serving longer sentences and those who think they would receive longer sentences for re-offending will have higher perceptions of sanction severity. Those ranking high in sanction severity should be less likely to report re-offending upon release.

Prior Punishment. Those who have received prior punishment should be less likely to re-offend. To measure an inmate's prior punishment, respondents were asked: "Have you ever spent time in a juvenile correctional facility or detention center?" Possible responses were "yes" and "no." This variable was dummy coded so that "1" represents those who have spent time in a juvenile facility and "0" represents those who have not. This variable will be called "Prior time in Juvenile Facility." Respondents were also asked: "Before now, had you ever spent time in an adult correctional facility, work center, or jail?" Possible responses were "yes" and "no." This variable was

dummy coded so that "1" represents those who have spent time in adult facilities and "0" represents those who have not. This variable will be called "Prior time in Adult Facility." Respondents were also asked: "How much time of your current sentence have you served?" Respondents were prompted to fill in the blank with years and months. Responses were then recoded into total months. This variable will be called "Time served on current sentence." Deterrence theory would predict that those inmates reporting more prior punishment, such as serving in a juvenile or adult facility and more time served on current sentence, should be less likely to report re-offending upon release. Variable descriptions for the specific deterrence model are given in Table 4.1

Control Variables

When performing logistic regression, several control variables will be included in my analysis. Respondents' gender will be dummy coded as 1= "male" and 0= "female." This variable will be called "Sex." "Race" will also be used as a statistical control. To measure race, respondents were asked: "How do you describe yourself?" Responses included 1= "Black/African American," 2= "White," 3= "American Indian," 4= "Asian," 5= "Hispanic," and 6= "Other." For purposes of this study, only those respondents claiming to be "Black/African American" and "White" will be included in the analysis. "Race" was dummy coded as 1= "Black" and 0= "White." Respondents' age will also be used as a statistical control. Age was not specifically given, so a new age variable was computed as (year of study - year born). This variable will be called "Age." Descriptions for the control variables are given in Table 4.1

Table 4.1. Variable Descriptions for Maximum Capital and Specific Deterrence Models

Dependent Variable	**Variable Description**
Likelihood of re-offending	Inmates' self-reported likelihood of re-offending; 0 = no likelihood 1= some likelihood
Control Variables	**Variable Description**
Sex	Inmates' gender; 0 = female 1 = male
Race	Inmates' race; 0 = white 1 = black
Age	Inmates' age at time of survey; Measured in years
Independent Variables (Maximum Capital Model)	**Variable Description**
Employment	Employment status before incarceration; 0 = unemployed 1 = employed
Money	Income year prior to incarceration; Measured in dollars
Education	Inmates' highest grade of education ever completed; Range 0 to 20; 12=h.s. diploma/GED; 16=completed college; 18=Master's; 20=Ph.d, medical or law degree
Father's Education	Inmates' father's education; 1=8th grade or less; 2=some high school; 3=h.s. diploma/GED; 4=some college; 5=completed college; 6=grad or Professional degree
Mother's Education	Inmates' mother's education; 1=8th grade or less; 2=some high school; 3=h.s. diploma/GED; 4=some college; 5=completed college; 6=grade or Professional degree
Grades	Inmates' average grades while in school;1=mostly F's; 2=mostly D's; 3=mostly C's; 4=mostly B's; 5=mostly A's
#Family Incarcerated	Number of family members who have been incarcerated; Range from 0 to 13
Father lived in house	Whether the father lived in house while growing up; 0 = father did not live in house 1 = father lived in house
Marital Status	Inmates' present marital status; 0 = not married 1 = married
Caregiver	Whether inmate was primary caregiver before incarceration; 0 = not caregiver or have no kids 1 = primary caregiver
Rely on support	Whether an inmate feels he/she can rely on support from Family and friends when released; 1=not at all likely; 2=not very likely; 3=somewhat likely; 4=very likely
Family Communication	Frequency of communication with family not incarcerated; 1=never; 2=once per year; 3=4to 6 times per year; 4=once per month; 5=twice per month; 6=once per week; 7=2 to 4 times per week; 8=daily
Friend Communication	Frequency of communication with friends not incarcerated; 1=never; 2=once per year; 3= 4 to 6 times per year; 4=once per month; 5=twice per month; 6=once per week; 7= 2 to 4 times per week; 8=daily
Independent Variables (Specific Deterrence Model)	**Variable Description**
Certainty of Re-arrest	Inmates' certainty that he/she will be re-arrested if Committing another crime; Range 0 to 10; 0=not at all likely; 10=very likely
Severity if Re-arrested	Years given if re-arrested; Range 0 to 199; 199=death penalty
Severity of Sentence	Months of current sentence; Range 1 to 1200; 1200=life sentence
Prior time in Adult Facility	Whether an inmate has served prior time in an adult facility; 0 = no 1= yes
Prior time in Juvenile Facility	Whether an inmate has served prior time in juvenile facility; 0 = no 1 = yes
Time served on Current Sentence	Months served on current sentence; Range 0 to 11

Missing Values

To save as many cases as possible, several techniques for dealing with missing values were employed. The first technique was to create dummy variables for missing cases on the selected variables. These dummy variables were to be included in the models but not analyzed. The second technique of dealing with missing values was to replace missing values with the mean response. After employing both techniques and comparing results, it was decided that the mean replacement technique was best suited for this research. The results using both techniques were similar, and the models with the means for missing values were easier to comprehend and required fewer degrees of freedom. Table 4.2 includes the number of missing values and the means that replaced those values for each of the variables.

Descriptive Statistics

Descriptive statistics were run for all control, independent, and dependent variables in the study. Means and standard deviations are given in Table 4.3

Control Variables. The final sample of respondents included 358 females and 348 males. Blacks comprised the majority of the population at the facility when research was conducted (63.7%), and the final sample contained 61.3% black respondents. Whites made up approximately 35.4% of the inmate population at this facility when research was conducted, and they comprised 38.7% of the final sample. With regard to race, the sample is fairly representative of the makeup of the facility at the time the research was

Table 4.2. Missing Values And Mean Replacement for Variables

Variable	Number of Missing Values	Mean Replacement
Dependent Variable		
Likelihood of re-offending	10	1= likelihood of re- offending
Control Variables		
Sex	0	N/A
Race	0	N/A
Age	5	33
Independent Variables (Maximum Capital Model)		
Employment	8	1= employed
Money	144	$26,301
Education	5	11
Father's Education	221	3 = h.s. diploma/GED
Mother's Education	102	3 = h.s. diploma/GED
Grades	52	4 = mostly Bs
# Family Incarcerated	1	1
Father lived in house	5	1 = yes
Marital Status	9	0 = not married
Caregiver	12	0 = not primary caregiver
Rely on Support	15	4 = very likely
Family Communication	21	6 = once per week
Friend Communication	20	3 = 4 to 6 times per year
Independent Variables (Specific Deterrence Model)		
Certainty of re-arrest	34	6
Severity if re-arrested	114	28
Severity of sentence	30	103
Prior time in Adult facility	1	1= yes
Prior time in Juvenile facility	2	0 = no
Time served on current sentence	17	4

Table 4.3. Descriptive Statistics for Dependent, Control, and Independent Variables

Variables	Mean	Standard Deviation
Dependent Variable		
Likelihood of re-offending	.5142	.5002
Control Variables		
Sex	.4929	.5003
Race	.6133	.4873
Age	32.5	8.796
Independent Variables (Maximum Capital Model)		
Employment	.6459	.4785
Money	26,301	35,419
Education	11.215	2.091
Father's Education	2.92	1.171
Mother's Education	2.99	1.281
Grades	3.61	.7406
#Family Incarcerated	1.290	1.433
Father lived in house	.5382	.4988
Marital Status	.1856	.3890
Caregiver	.4873	.5001
Rely on support	3.704	.7137
Family Communication	5.684	1.729
Friend Communication	3.379	2.320
Independent Variables Specific Deterrence Model		
Certainty of re-arrest	5.742	4.179
Severity if re-arrested	27.597	48.632
Severity of sentence	102.9	201.78
Prior time in Adult facility	.5637	.4962
Prior time in Juvenile facility	.1955	.3968
Time served on current sentence	3.825	3.414

conducted. The age of respondents when research was conducted ranged from 17 to 61. The mean age of respondents was 33 years.

Economic Capital Variables. To measure an inmate's real world economic capital, respondents' employment status before incarceration and money made the year prior to incarceration were considered. Employment status was dummy coded as 0 and 1 to reflect those who were employed before incarceration and those who were not employed. The mean score for employment status was .6459 and the standard deviation was .4786. 64.6% of the sample respondents reported employment before incarceration, and 35.4% of respondents reported that they were unemployed before incarceration. Those who were unemployed before incarceration should rank low in real world economic capital.

The amount of money that inmates made the year prior to incarceration ranged from 0 to 360,000 dollars. On average, inmates made approximately 26,000 dollars the year prior to incarceration. This mean may be inflated due to the fact that some inmates reported very high income before incarceration; however, these cases were not excluded from the analysis because it is possible that inmates had high income before incarceration just as it is possible that some inmates had zero income the year prior to incarceration. Those inmates reporting very high incomes should be less likely to re-offend. The standard deviation for income was roughly 35,000 dollars. Although some inmates reported higher amounts of income, approximately half of the sample respondents reported making less than 20,000 dollars the year prior to incarceration.

Cultural Capital Variables. To measure inmates' real world cultural capital, respondents were asked how many years of education they had obtained, how much education their father and mother had, what kind of grades the inmates made when they were in school, how many family members have been incarcerated, and if the inmates' fathers lived with them when they were growing up.

Responses for inmates' years of education ranged from 3 years to 18 years. The mean response for inmates' education was 11.2, or high school dropout, with a standard deviation of 2.09. 44.6% of sample respondents have less than a high school diploma or G.E.D. 39.5% of respondents have a high school diploma or G.E.D., while only 15.9% have at least some college. Education is highly regarded in society, and those with little education will rank low in real world social capital. Poor academic performance and overall weak ties to schools are often associated with delinquency and criminality (Hagan and McCarthy 1997; Wolfgang, Figlio, and Sellin 1972; Sampson and Laub 1993). Since educational attainment is often linked to job opportunities, it may be the case that those with little education turn to criminal enterprises to make ends meet.

Responses for father's educational attainment ranged from 1 to 6. The mean response was 2.92, or high school diploma/G.E.D., with a standard deviation of 1.17. 26.2% of respondents report that their fathers had less than a high school education. 56.2% report that their fathers had a high school diploma/G.E.D., and 17.6% report that their fathers had at least some college. Responses for mother's education ranged from 1 to 6. The mean response was 2.99, or high school diploma/G.E.D., with a standard deviation of 1.28. 29.5% of respondents report that their mothers had less than a high

school education. 48.4% report that their mothers had a high school diploma/G.E.D., and 22.1% report that their mothers had at least some college. The education of an inmate's parents affects the cultural capital not only of the parents but also of their children. More education should lead to more real world cultural capital.

Respondents were also asked what kind of grades they made while they were in school. Responses ranged from 1 to 5. The mean response was 3.61, or mostly B's, with a standard deviation of .741. 50.6% of the respondents reported that they made mostly B's while in school. 35.6% reported that they made mostly C's. Only 5.2% of the respondents reported that they made mostly D's or F's while in school. 8.6% made mostly A's. Because good grades are more highly regarded in society, those inmates who made better grades while in school should have higher real world cultural capital.

The number of family members who have been incarcerated was also asked of the respondents. Responses ranged from 0 to 13. The mean response was 1.29 with a standard deviation of 1.43. 34.1% of respondents report having zero family members incarcerated. 32.9% of respondents have had one family member incarcerated, and 30.1% report having more than one family member incarcerated. It appears that the vast majority of inmates have had family members incarcerated. This should lower the inmates' real world cultural capital.

Whether or not the inmate's father lived in house while growing up was asked. Responses were dummy coded as 0 and 1 to represent the father living in house and the father not living in house. The mean score was .5382 with a standard deviation of .4989. 53.8% of the sample respondents report that their father did live in house while they were

growing up, while 46.3% say that their fathers did not. Those inmates whose fathers lived in house while growing up are considered to have more real world cultural capital, because more often than not this would suggest being brought up in a two parent environment. This is more highly regarded in society than single parent households.

Social Capital Variables. To measure inmates' real world social capital, respondents were asked their present marital status, whether or not they were a primary caregiver of children before incarceration, how often they communicate with family and friends, and the likelihood that they can rely on support when released from prison.

Inmates' present marital status was dummy coded as 0 and 1 to represent those who are married and those who are not. The mean score was .1856 with a standard deviation of .3890. 81.4% of respondents report that they are not married, while 18.6% claim to be currently married. Those who are currently married should have more real world social capital upon release.

Whether or not an inmate was the primary caregiver of children before incarceration was dummy coded as 0 and 1 to represent being a primary caregiver and not being a primary caregiver. The mean score was .4873 with a standard deviation of .5001. 51.3% of the sample respondents claim that they were not the primary caregiver of children, while 48.7% claim to have been the primary caregiver of children before incarceration. Those who were not the primary caregivers of children include those who do not have children and those who have children but do not provide support. The effect is the same for measuring real world social capital. For purposes of this analysis, it is the relationship with children that provides social capital, not just having children.

The frequency of communication with family and friends was also asked of the respondents. Responses for frequency of communication with family ranged from 1 to 8. The mean score was 5.684, or once per week, and the standard deviation was 1.729. 67.4% claim to communicate with family once a week. 32.6% report communication with family members less than once a week, while only 6.5% of inmates report never communicating with family members who are not incarcerated. Responses for the frequency of communication with friends ranged from 1 to 8. The mean score was 3.379, or 4 to 6 times per year, and the standard deviation was 2.321. Only 24.9% report that they communicate with their friends at least once a week. 39.5% of the respondents report that they never communicate with their friends who are not incarcerated. These numbers suggest that inmates are more likely to communicate with their family members than their friends who are not incarcerated.

Respondents were also asked the likelihood of being able to rely on support from family and friends when released. Responses ranged from 1 to 4. The mean score was 3.704, or very likely to rely on support when released, and the standard deviation was .7137. 92.6% report at least some likelihood of being able to rely on support when released, while only 7.4% say that they will not be able to rely on support from friends and family when released. This suggests that the vast majority of inmates expect to rely on support when released.

Certainty Variables. To measure inmates' perceived certainty of punishment, respondents were asked their level of certainty for being re-arrested if committing another crime. Responses ranged from 0 to 10. The mean score was 5.742 with a standard

deviation of 4.179. 39.1% of the respondents report that they are very likely to be re-arrested, and surprisingly 24.6% of respondents report no certainty of being re-arrested for committing another crime. Considering that these respondents are currently serving time for their crimes, one would think that the respondents' levels of certainty for re-arrest would be very high.

Severity Variables. To measure inmates' perceived severity of punishment, respondents were asked how many years they thought they would be given if re-arrested. They were also asked how long of a sentence they are currently serving. Responses for years given if re-arrested ranged from 0 to 199 (death penalty). The mean score was 27.59 with a standard deviation of 48.63. Over half of the respondents reported that they would receive at least 15 years if re-arrested. This suggests high levels of perceived severity among the respondents.

Responses for the length of an inmate's current sentence measured in months ranged from 1 to 1200. The mean score was 102.9, or approximately 8.5 years, and the standard deviation was 201.78. 46.9% of respondents are serving a 4.5 year sentence or less, and only 3% are serving life sentences. Inmates' perceptions of sanction severity should increase with the length of their current sentences.

Prior Punishment Variables. To measure inmates' experiences with prior punishment, respondents were asked if they had served time in an adult correctional facility, if they had served time in a juvenile correctional facility, and how many months they have served on their current sentence.

Whether or not an inmate had served time in an adult facility was dummy coded to 0 and 1 to represent no time spent in an adult facility and at least some time spent in an adult facility. The mean response was .5637 with a standard deviation of .4962. 43.6% of respondents reported spending no prior time in an adult facility, while 56.4% of the respondents did report spending prior time in an adult facility. The fact that over half of the inmates have served prior time in an adult facility draws concern as to whether or not prior punishment deters people from re-offending.

Inmates were also asked if they had spent prior time in a juvenile facility. Responses were dummy coded as 0 and 1 to represent those who had spent prior time in a juvenile facility and those who had not spent time in a juvenile facility. The mean response was .1955 with a standard deviation of .3968. The vast majority of inmates (80.5%) report having spent no prior time in a juvenile facility. 19.5% of the inmates report having spent prior time in a juvenile facility. Once again, this questions the effect of prior punishment on re-offending.

Inmates were also asked how much time they had served on their current sentence. Responses, measured in months, ranged from 0 to 11. The mean response was 3.826 with a standard deviation of 3.414. 26.9% of the respondents had served less than one month on their current sentence, and over half (51.6%) had served at least three months on their current sentence. As the actual amount of time that an inmate has served increases, the deterrent effect of prior punishment should increase.

Dependent Variable. The dependent variable for this study is likelihood of re-offending. Responses were dummy coded as 0 and 1 to represent no likelihood of re-

offending and some likelihood of re-offending. The mean score was .5142 with a standard deviation of .5002. Considering that all respondents are currently serving time, it is surprising that 51.4% of inmates report at least some likelihood of re-offending upon release and only 48.6% report no likelihood of re-offending upon release. These statistics alone reiterate the importance of this study. Since the respondents are from an inmate population, with the effects of punishment fresh on their minds, they should report that they have no likelihood of re-offending if specific deterrence has any merit.

Statistical Methods

The data analysis for this research will proceed in several stages. First, bivariate findings will be presented. Logistic regression will be used to analyze the proposed relationship between inmates' real world capital and their likelihood of re-offending upon release, and finally, the relationship between deterrence indicators and inmates' likelihood of re-offending will be tested. In the first model, the likelihood of re-offending will be regressed on gender, race, and age. This model will be designated as Model 1.

Model 1. $\text{Log}\left(P / (1-P)\right) = B0 + B1(\text{sex}) + B2(\text{race}) + B3(\text{age})$

In Model 2, measures of real world economic capital will be added to the statistical control variables. In this model, likelihood of re-offending will be regressed on respondents' sex, race, age, employment status, and money made the year prior to incarceration. This model will be compared to Model 1 to determine goodness of fit.

Model 2. $\text{Log}\left(P / (1-P)\right) = B0 + B1(\text{sex}) + B2(\text{race}) + B3(\text{age}) + B4(\text{employment}) + B5(\text{money})$

Next, indicators of real world cultural capital will be added to Model 1. In Model 3, likelihood of re-offending will be regressed on respondents' sex, race, age, level of education, father's level of education, mother's level of education, grades in school, number of family members who have been incarcerated, and whether or not the respondents' father lived in house while growing up. This model will be compared to Model 1 to determine the goodness of fit.

Model 3. $\text{Log}\left(P / (1-P)\right) = B0 + B1(\text{sex}) + B2(\text{race}) + B3(\text{age}) + B4(\text{education}) + B5(\text{father's education}) + B6(\text{mother's education}) + B7(\text{grades}) + B8(\#\text{ family incarcerated}) + B9(\text{father lived in house})$

In Model 4, indicators of real world social capital will be added to Model 1. In this model, likelihood of re-offending will be regressed on sex, race, age, marital status, whether or not respondent was the primary caregiver of children, whether or not the respondent feels he will be able to rely on support from friends and family when released, frequency of communication with family who are not incarcerated, and frequency of communication with friends who are not incarcerated. This model will be compared to Model 1 to determine goodness of fit.

Model 4. $\text{Log}\left(P / (1-P)\right) = B0 + B1(\text{sex}) + B2(\text{race}) + B3(\text{age}) + B4(\text{marital status}) + B5(\text{caregiver}) + B6(\text{rely on support}) + B7(\text{family communication}) + B8(\text{friend communication})$

Model 5 will include all statistical control variables and various capital indicators to test the robustness of statistically significant findings in the separate models and to determine goodness of fit as compared to the control model.

Model 5. Log (P/(1-P)) = B0 + B1(sex) + B2(race) + B3(age) + B4(employment) + B5(money) + B6(education) + B7(father's education) + B8(mother's education) + B9(grades) + B10(# family incarcerated) + B11(father lived in house) + B12(marital status) + B13(caregiver) + B14(rely on support) + B15(family communication) + B16(friend communication)

After establishing the significance of the real world economic, cultural, and social capital indicators on re-offending, logistic regression will be used to analyze the effect of the deterrence indicators on re-offending. In Model 6, certainty indicators will be added to Model 1. In this model, likelihood of re-offending will be regressed on sex, race, age, and certainty of arrest upon re-offending. This model will be compared to Model 1 to determine goodness of fit.

Model 6. $\text{Log}\left(P / (1-P)\right) = B0 + B1(\text{sex}) + B2(\text{race}) + B3(\text{age}) + B4(\text{certainty})$

Next, logistic regression will be used to test the effect of severity measures on re-offending. In Model 7, likelihood of re-offending will be regressed on sex, race, age, severity of sentence if re-arrested, and severity of current sentence. This model will be compared to Model 1 to determine goodness of fit.

Model 7. $\text{Log}\left(P / (1-P)\right)$ = B0 + B1(sex) + B2(race) + B3(age) + B4(severity if re-arrested) + B5(severity of sentence)

Logistic regression will then be used to test the effect of prior punishment on re-offending. In Model 8, likelihood of re-offending will be regressed on sex, race, age, whether or not the respondent spent prior time in an adult facility, whether or not the respondent spent prior time in a juvenile facility, and how much time of current sentence has been served. This model will be compared to Model 1 to determine goodness of fit.

Model 8. Log $\left(P / (1-P)\right)$ = B0 + B1(sex) + B2(race) + B3(age) +B4(prior time in adult facility) + B5(prior time in juvenile facility) + B6(time served on current sentence)

Model 9 will include all statistical control variables and deterrence indicators to test the robustness of statistically significant findings in the separate models and to determine goodness of fit as compared to the control model.

Model 9. Log $\left(P / (1-P)\right)$ = B0 + B1(sex) + B2(race) + B3(age) + B4(certainty of re-arrest) + B5(severity if re-arrested) + B6(severity of sentence) + B7(prior time in adult facility) + B8(prior time in juvenile facility) + B9(time served on current sentence)

After analyzing the results from Model 5 and Model 9, it will be possible to determine the effectiveness of specific deterrence indicators as compared to the various capital indicators in explaining re-offending.

CHAPTER V

RESULTS

Several analytical methods have been employed in order to test the research hypotheses stated in chapter 3. To determine if there is in fact association between the independent and dependent variables and to determine the direction of those proposed relationships, bivariate correlations were computed. Additionally, logistic regression was employed to test the relationship between likelihood of re-offending and real world capital indicators, as well as the relationship between likelihood of re-offending and specific deterrence indicators.

Bivariate Correlations

Bivariate correlations were run for all independent, dependent, and control variables in this study. The correlations for variables used in the maximum capital model are presented in Table 5.1, and the correlations for all variables used in the specific deterrence model are presented in Table 5.2. The primary reason for including bivariate correlations is to test that the relationships between the independent and dependent variables are in the expected direction.

Control Variables and Likelihood of Re-offending. Gottfredson and Hirschi (1990) and Tittle (1995) point out that gender, race, and age are correlated with criminal

activity; therefore, one would expect to find significant relationships between these control variables and the dependent variable, likelihood of re-offending. The literature suggests that males, blacks, and younger people are more prone to criminal activity (Gottfredson and Hirschi 1990; Tittle 1995); therefore, a positive relationship is expected between sex (coded as 1=male) and likelihood of re-offending. The relationship is positive (.063), but it fails to reach statistical significance. Additionally, a positive relationship is expected between race (coded as 1=black) and likelihood of re-offending. Once again, the relationship is positive (.060), but it too fails to reach statistical significance. Also, the relationship between age and likelihood of re-offending is expected to be negative, since older inmates should be less prone to commit additional crimes. In fact, the relationship is negative (-.057), but it too fails to reach statistical significance.

Table 5.1. Bivariate Correlations for Control, Independent, and Dependent Variables in the Capital Model

Variables	Sex (1=male)	Race (1=black)	Age	Employment (1=employed)	Money	Educ.	Father's Educ.	Mother's Educ.	Grades	# Family Incarcerated	Father in house	Married	Caregiver (1=primary)	Rely on support	Family Comm.	Friend Comm.	Likelihood of Re-offending
Sex		.056	-.212**	.173**	.209**	.025	.069	.029	-.111**	-.028	.004	.040	-.111**	-.091*	-.038	-.051	.063
Race	.056		-.103**	-.150**	-.046	-.006	-.015	-.079*	-.002	.195**	-.222**	-.145**	.122**	.070	-.118**	.000	.060
Age	-.212**	-.103**		.015	-.062	.177*	-.151**	-.214**	.024	-.132**	.112**	.152**	.004	.048	.051	-.032	-.057
Employment	.173**	-.150**	.015		-.018	.130**	.015	.010	.042	-.148**	.027	.110**	.076*	-.004	.002	.001	-.098**
Money	.209**	-.046	-.062	-.018		.144**	.116**	.091*	.109**	-.008	.045	.061	-.039	-.031	.040	-.011	.031
Education	.025	-.006	.177**	.130**	.144**		.152**	.173**	.295**	-.155**	.071	.085*	.020	.044	.071	.079*	-.045
Dad educ.	.069	-.015	-.151**	.015	.116**	.152**		.460**	.066	-.099**	-.056	-.037	-.016	.034	.148**	.062	.026
Mom educ.	.029	-.079*	-.214**	.010	.091*	.173**	.460**		.059	-.075*	.011	-.007	-.031	.024	.105**	.080*	-.042
Grades	-.111**	-.002	.024	.042	.109**	.295**	.066	.059		-.052	.047	.005	.075*	.022	.019	.091*	-.081*
# Fam. Inc	-.028	.195**	-.132**	-.148**	-.008	-.155**	-.099**	-.075*	-.052		-.130**	-.005	.042	-.035	-.123**	-.044	.140**
Dad House	.004	-.222**	.112**	.027	.045	.071	-.056	.011	.047	-.130**		.099**	.028	.050	.074*	.030	-.019
Married	.040	-.145**	.152**	.110**	.061	.085*	-.037	-.007	.005	-.005	.099**		.096*	.076*	.121**	-.075*	-.119**
Caregiver	-.111**	.122**	.004	.076*	-.039	.020	-.01	-.031	.075*	.042	.028	.096*		.111**	.058	-.018	-.045
Rely support	-.091*	.070	.048	-.004	-.031	.044	.034	.024	.022	-.035	.050	.076*	.111**		.270**	.119**	-.090*
Family comm.	-.038	-.118**	.051	.002	.040	.071	.148**	.105**	.019	-.123**	.074*	.121**	.058	.270**		.283**	-.091*
Friend comm.	-.051	.000	-.032	.001	-.011	.079*	.062	.080*	.091*	-.044	.030	-.075*	-.018	.119**	.283**		.032
Likelihood of Re-offending	.063	.060	-.057	-.098**	.031	-.045	.026	-.042	-.081*	.140**	-.019	-.119**	-.045	-.090*	-.091*	.032	

*p < .05, **p<.01

Table 5.2. Bivariate Correlations for Control, Independent, and Dependent Variables in Deterrence Model

Variables	Sex (1=Male)	Race (1=Black)	Age	Certainty of re-arrest	Severity if re-arrested	Severity of sentence	Prior time in Adult Facility	Prior time in Juvenile Facility	Time served on current sentence	Likelihood of re-offending
Sex		.056	-.212**	-.259**	-.075*	-.143**	.102**	.057	.045	.063
Race	.056		-.103**	-.151**	-.019	-.067	.035	.047	.026	.060
Age	-.212**	-.103**		.094*	.053	.180**	.015	-.252	-.007	-.057
Certainty Of re-arrest	-.259**	-.151**	.094*		.047	.072	-.044	-.071	-.025	-.040
Severity if Re-arrested	-.075*	-.019	.053	.047		.479**	-.045	-.003	-.027	-.074*
Severity of Sentence	-.143**	-.067	.180**	.072	.479**		-.143**	-.045	-.088*	-.136**
Prior time in Adult Facility	.102**	.035	.015	-.044	-.045	-.143**		.203**	-.021	.179**
Prior time in Juvenile Facility	.057	.047	-.252**	-.071	-.003	-.045	.203**		-.017	.079*
Time served on Current Sentence	.045	.026	-.007	-.025	-.027	-.088*	-.021	-.017		.026
Likelihood of Re-offending	.063	.060	-.057	-.040	-.074*	-.136**	.179**	.079*	.026	

*p<.05, **p<.01

Capital Indicators and Likelihood of Re-offending. The proposed relationship in the maximum capital model expects that real world capital indicators will be negatively associated with likelihood of re-offending.

When examining the relationships between real world economic capital indicators and likelihood of re-offending, there is a statistically significant negative relationship between employment and likelihood of re-offending. In other words, those inmates who were employed prior to incarceration should be less likely to re-offend upon release. A negative relationship was also expected between money made the year prior to incarceration and likelihood of re-offending. Surprisingly, this relationship turned out to be positive (.031) and statistically insignificant. To better understand the surprising relationship, it helps to consider the original question on the survey. Inmates were asked about their income the year prior to incarceration "from all sources." This leaves the possibility that inmates reported income from illegal enterprises, which may have landed them in prison in the first place. If this is the case, then it makes sense that some inmates would report a likelihood of re-offending upon release to maintain the lifestyle that they were accustomed to prior to incarceration.

When examining the relationships between real world cultural capital and likelihood of re-offending, one would expect them to be negative. The relationship between inmates' education and likelihood of re-offending is in fact negative (-.045), but it fails to reach statistical significance. Surprisingly, the relationship between inmates' father's education and likelihood of re-offending was positive (.026), but it too failed to reach statistical significance. However, inmates' mother's education was negatively

associated (-.042) with likelihood of re-offending. This relationship did not reach statistical significance. One could expect that the higher level of education that an inmate's parents had, the less likely that inmate would be to re-offend, due to his or her increased real world cultural capital. These relationships, though statistically insignificant, suggest that the mother's education is more important for reducing likelihood of re-offending than is the education of the father. Since the education of an inmate's parents and an inmate's own education are considered as real world cultural capital indicators, the grades that an inmate earned while in school should also be an indicator of cultural capital. Those with better grades are considered to have more cultural capital, and they should report less likelihood of re-offending due to their increased cultural capital and possible mental capability. The relationship between inmates' grades and likelihood of re-offending was indeed negative (-.081) and statistically significant, suggesting that those who made better grades may be more apt to securing jobs and opportunities once on the outside.

The relationship between the number of an inmate's family members who have been incarcerated and likelihood of re-offending should be positive, suggesting that having family members incarcerated is a sign of low real world social capital which is proposed to increase likelihood of re-offending. The relationship between number of family members who have been incarcerated and likelihood of re-offending was indeed positive (.140) and statistically significant. Number of family members who have been incarcerated could also be assumed to increase prison capital while decreasing real world capital. This offers evidence to claims made by the maximum capital model, and calls

into question the claims made by a general deterrence model. If one is aware that family members have received alleged severe sentences, then that person should be deterred from committing crime due to the perceived certainty and severity of punishment that they would likely receive. This evidence does not support the deterrence claim.

Inmates coming from traditional two-parent households are considered to have more real world capital than those coming from single female-headed households; therefore, the relationship between the father living in house while growing up and likelihood of re-offending should be negative. This relationship was indeed negative (-.019), but it was statistically insignificant.

Increased real world social capital should be negatively related to likelihood of re-offending. Those who are married are considered to have more real world social capital. The relationship between being married and likelihood of re-offending is indeed negative (-.119) and statistically significant, suggesting that having a strong relationship with someone on the outside will reduce likelihood of re-offending. Those inmates who were the primary caregivers of children prior to incarceration should be less likely to re-offend upon release because of their strong relationships with their children. The relationship between being a primary caregiver and likelihood of re-offending was indeed negative (-.045), but it failed to reach statistical significance.

Inmates who feel they can rely on support from friends and family upon release should be less likely to re-offend. The relationship between ability to rely on support and likelihood of re-offending was indeed negative (-.090) and statistically significant. Also, the relationship between frequency of communication with family and likelihood of re-

offending was negative (-.091) and statistically significant; however, the relationship between communication with friends who were not incarcerated and likelihood of re-offending was positive (.032) yet statistically insignificant. This suggests that relationships with family members are more important than those with friends who may be deviants as well.

Specific Deterrence Indicators and Likelihood of Re-offending. According to the specific deterrence model, perceived certainty and severity of punishment, as well as having received prior punishment, should be negatively related to likelihood of re-offending.

Higher certainty of re-arrest for committing another crime upon release should be negatively related to likelihood of re-offending, according to the specific deterrence model. This relationship was indeed negative (-.040) but statistically insignificant. The severity of punishment that an inmate feels he or she would receive upon re-offending should also be negatively related to likelihood of re-offending. In other words, if the inmate perceives that punishment will be severe, then he or she should be less likely to commit a crime that would lead to such a punishment. The relationship between severity of punishment if re-arrested and likelihood of re-offending was indeed negative (-.074) and statistically significant. The length of an inmate's current sentence is also seen as an indicator of punishment severity. The longer an inmate's sentence, the less likely he or she should be to re-offend upon release. This relationship was indeed negative (-.136) and statistically significant. This relationship could reflect that perceived severity of punishment actually decreases likelihood of re-offending upon release, or it could reflect

the fact that those inmates serving particularly lengthy sentences report no likelihood of re-offending because they feel they will never get out of prison or they will be too old to offend once released.

According to the specific deterrence model, those inmates who have received prior punishment should be less likely to re-offend upon release; therefore, the expected relationship between prior punishment indicators and likelihood of re-offending should be negative. Those inmates who have served time in an adult facility prior to this incarceration should be less likely to re-offend upon release. Contrary to specific deterrence claims, there is a significant positive relationship (.179) between serving in an adult facility and likelihood of re-offending upon release. Also, those who have served in a juvenile facility prior to the current incarceration should be less likely to re-offend upon release; however, the relationship between this indicator and the dependent variable was also significant and positive (.079), further suggesting the prior punishment does not deter criminal activity. In fact, it is possible that prior punishment actually increases likelihood of re-offending. Time served on current sentence was also used as an indicator of prior punishment and should be negatively related to likelihood of re-offending according to the specific deterrence model; however, this relationship was also positive (.026) but statistically insignificant.

Logistic Regression Analysis

The following results stem from logistic regression analyses to determine the effectiveness of the maximum capital indicators (economic, cultural, and social) in determining likelihood of re-offending. Logistic regression was also employed to

examine the effects of the specific deterrence indicators (certainty, severity, and prior punishment) in determining likelihood of re-offending.

Control Variables and Likelihood of Re-offending. Table 5.3 shows the results of several models testing the relationships between control variables, capital indicators, and likelihood of re-offending. Model 1 examines the relationships between sex, race, age, and likelihood of re-offending. None of the control variables reached statistical significance; however, these variables were used in the other models. Model 1 chi-square is 6.201 and statistically insignificant. Coefficients for Model 1 are listed in Table 5.3.

Economic Capital Indicators and Likelihood of Re-offending. In Model 2, economic indicators were added to the statistical control group. This model was set up to address hypothesis 1: *Inmates with high real world economic capital will be less likely to re-offend upon release.* Model chi-square was 13.620 and significant beyond the .01 level. After performing a log likelihood ratio test, the economic capital indicators were statistically significant as a group. Also, partial support was found for hypothesis 1. Whether or not an inmate was employed before incarceration was significant beyond the .01 level. Model 2 suggests that when holding other independent variables constant, the odds of re-offending for those inmates who were employed before incarceration are 35% less than those inmates who were unemployed before incarceration. Coefficients for Model 2 are listed in Table 5.3.

Table 5.3. Logistic Regression Coefficients and Odds Ratios for Various Capital Models.

	Model 1		Model 2		Model 3		Model 4		Model 5	
Variables	B	Exp(B)	B	Exp(B)	B	Exp(B)	B	Exp(B)	B	Exp(B)
Constant	.125	1.133	.360	1.433	.492	1.636	1.155	3.174	1.536	4.648
Sex (1=male)	.206	1.228	.275	1.316	.195	1.215	.212	1.236	.241	1.272
Race (1=black)	.220	1.246	.159	1.172	.113	1.120	.175	1.192	.026	1.026
Age	-.009	.991	-.008	.992	-.007	.993	-.004	.996	-.022	.998
Employment (1=employed)			-.437	.646**					-.339	.713*
Money			.000	1.000					.000	1.000
Education					.002	1.002			.014	1.014
Father's Education					.120	1.128			.130	1.138
Mother's Education					-.107	.899			-.110	.896
Grades					-.196	.822			-.219	.803
#Family Incarcerated					.201	1.223***			.196	1.216**
Father lived In house (1=yes)					.064	1.066			.100	1.105
Marital Status (1=married)							-.491	.612**	-.519	.595**
Caregiver (1=yes)							-.093	.911	-.047	.954
Rely on Support (1=yes)							-.195	.823	-.191	.826
Family Communication							-.082	.921	-.083	.920
Friend Communication							.048	1.049	.060	1.061
Model χ^2	6.201		13.620**		25.233**		23.484**		48.005***	
Cox & Snell R^2	.009		.019		.035		.033		.066	

*p<.05, **p<.01, ***p<.001

Cultural Capital Indicators and Likelihood of Re-offending. In Model 3, real world cultural capital indicators were added to the statistical control group to test hypothesis 2: *Inmates with high real world cultural capital will be less likely to re-offend upon release.* Model chi-square was 25.233 and significant beyond the .01 level. After performing a log likelihood ratio test, the cultural capital indicators were statistically significant as a group. Also, partial support was found for hypothesis 2 when considering that having none or very few family members who have ever been incarcerated is an indicator of high real world cultural capital. Number of an inmate's family members who have been incarcerated was statistically significant beyond the .001 level. Model 3 suggests that when controlling for other independent variables in the model, the odds of re-offending are 22% greater for every one person increase in number of family members who have been incarcerated. Coefficients for Model 3 are listed in Table 5.3.

Social Capital Indicators and Likelihood of Re-offending. In Model 4, real world social capital indicators were added to the statistical control group to test hypothesis 3: *Inmates with high real world social capital are less likely to re-offend upon release*. Model chi-square was 23.484 and significant beyond the .01 level. After performing a log likelihood ratio test, the social capital indicators were statistically significant as a group, and partial support was found for hypothesis 3. An inmate's marital status was significant beyond the .01 level. Model 4 suggests that when controlling for other independent variables in the model, the odds of re-offending for those inmates who are

married are 39% less than the odds for those inmates who are not married. Coefficients for Model 4 are listed in Table 5.3.

Combined Capital Indicators and Likelihood of Re-offending. In Model 5, economic, cultural, and social capital indicators were added to the control group. With all variables included in the model, model chi-square was 48.005 and was significant beyond the .001 level. After performing a log ratio test, the economic, cultural, and social capital indicators were significant as a group. Employment was significant beyond the .05 level. Number of family members incarcerated and marital status were both statistically significant beyond the .01 level. The results from Model 5 confirm that the findings in the previous models were indeed robust. Coefficients for Model 5 are listed in Table 5.3.

Certainty Indicator and Likelihood of Re-offending. Models testing the relationships between the control variables, deterrence indicators, and likelihood of re-offending can be examined in Table 5.4. In Model 6, an inmate's perceived certainty of re-arrest was added to the control group to test hypothesis 4: *Inmates with high perceptions of certainty of punishment will be less likely to re-offend upon release.* With sex, race, age, and the certainty indicator in the model, model chi-square was only 6.382 and failed to reach statistical significance. After performing a log likelihood ratio test, the certainty indicator had no significant effect on likelihood of re-offending. Coefficients for Model 6 are listed in Table 5.4.

Severity Indicators and Likelihood of Re-offending. In Model 7, the severity indicators were added to the control group to test hypothesis 5: *Inmates with high perceptions of severity of punishment will be less likely to re-offend upon release.* With the severity indicators in the model, model chi-square increased to 17.756 and was significant beyond the .001 level. After performing a log likelihood ratio test, the severity indicators were statistically significant as a group, and partial support was found for hypothesis 5. The length of an inmate's current sentence was statistically significant beyond the .01 level. Model 7 suggests that when holding constant all other independent variables in the model, for every one month increase in an inmate's current sentence, the odds of re-offending decrease by .1%. At first, this seems to support the deterrence argument, but this relationship may be due to the fact those serving longer sentences may not see themselves as ever being released in the first place. If they do not perceive themselves as ever getting out of prison or being extremely old when getting out, then they will report little if any likelihood of re-offending upon release. Therefore, inmates are not deterred by their severe sentences but find it highly unlikely that they could physically commit another crime on the outside. Inmates were also asked about the severity of punishment that they would receive if they committed another crime upon release. If higher perceptions of sanction severity lowered the odds of re-offending, then there would be more support for the deterrence argument. In Model 7, the severity indicator that would best support the claims of deterrence, severity if re-arrested, fails to reach statistical significance. Coefficients for Model 7 are listed in Table 5.4.

Table 5.4. Logistic Regression Coefficients and Odds Ratios for Deterrence Models

	Model 1		Model 2		Model 3		Model 4		Model 5	
Variables	B	Exp(B)	B	Exp(B)	B	Exp(B)	B	Exp(B)	B	Exp(B)
Constant	.125	1.133	.182	1.200	.178	1.195	-.304	.738	-.182	.833
Sex	.206	1.228	.189	1.208	.152	1.165	.130	1.139	.083	1.087
Race	.220	1.246	.211	1.235	.205	1.228	.198	1.219	.184	1.202
Age	-.009	.991	-.009	.991	-.005	.995	-.010	.990	-.005	.995
Certainty Of Re-arrest			-.008	.992					-.005	.995
Severity if Re-arrested					-.001	.999			-.001	.999
Severity of Sentence					-.001	.999**			-.001	.999**
Prior time in Adult Facility							.696	2.005***	.643	1.903***
Prior time in Juvenile Facility							.162	1.176	.181	1.199
Time served on Current Sentence							.017	1.017	.010	1.011
Model χ^2	6.201		6.382		17.756***		28.972***		37.181***	
Cox and Snell R^2	.009		.009		.025		.040		.051	

*p<.05, **p<.01, ***p<.001

Prior Punishment and Likelihood of Re-offending. In Model 8, prior punishment indicators were added to the control group to test hypothesis 6: *Inmates who have received prior punishment will be less likely to re-offend upon release.* With the prior punishment indicators in the model, model chi-square increased to 28.972 and was statistically significant beyond the .001 level. After performing a log likelihood ratio test, it was determined that the prior punishment indicators were statistically significant as a group. Even though having served prior time in a juvenile facility and the time served on current sentence failed to reach statistical significance, prior time served in an adult facility did reach statistical significance beyond the .001 level. Though highly statistically significant, the relationship was in the opposite direction of that proposed in hypothesis 6, refuting an important claim of the deterrence model. Model 8 suggests that when holding all other variables in the model constant, the odds of re-offending upon release for those who have served prior time in an adult facility are two times higher than the odds for those who have not previously served in an adult facility. Coefficients for Model 8 are listed in Table 5.4.

Combined Deterrence Indicators and Likelihood of Re-offending. In Model 9, certainty, severity, and prior punishment indicators were added to the statistical control group. After performing a log likelihood ratio test, it was determined that the deterrence indicators were statistically significant as a group. Model chi-square increased to 37.181 and was statistically significant beyond the .001 level. Severity of current sentence was statistically significant beyond the .01 level, and prior time in an adult facility was

statistically significant beyond the .001 level. These results show that the findings in the previous models were indeed robust. Coefficients for Model 9 can be found in Table 5.4.

Comparison of Capital and Deterrence Models. The purpose of this research is to examine how economic, cultural, and social capital affect self-reported likelihood of re-offending upon release, and to examine if these indicators are better suited for explaining offending as compared to those included in the deterrence model. It is important to note that the capital model offers a new way of conceptualizing characteristics that may increase likelihood of re-offending. Because much of this research is exploratory, it is not surprising that only a few of the various capital indicators reached statistical significance in the models. That being said, the research did at least lend partial support to the claims of the capital conceptual model.

Contrary to the exploratory nature of the capital model indicators, the ideas behind deterrence have been around for some time. That is why the lack of support for all of the deterrence claims tested in the previous models may be surprising for some; however, when looking more closely at the findings from the deterrence model, it may be the case that those significant deterrence indicators are better suited for the capital model. The proposed maximum capital model shown in Figure 3.1 suggests that there is an inverse relationship between real world capital and prison capital. In other words, having high amounts of real world capital will decrease prison capital, and having high amounts of prison capital will decrease real world capital.

This research has only formally tested the effects of real world capital on re-offending, but assumptions about prison capital can be made from two significant

indicators in particular, number of family members who have ever been incarcerated and prior time in adult facility. It may be helpful to look at these indicators from two different perspectives. From a deterrence perspective, having more family members that have been incarcerated should increase a person's perceptions of the certainty and severity of sanctions, and those greater perceptions of certainty and severity of sanctions should decrease the likelihood that a person will offend. From the maximum capital perspective, having more family members who have been incarcerated should increase a person's prison capital. This happens for several reasons. First of all, if the person knows people who have been incarcerated, then that person will have access to information about what to expect when going into prison. Also, it may be possible that those family members who have been incarcerated can provide contacts for a person entering into prison. Knowing people who have experienced incarceration may increase a person's knowledge of the prison culture and may provide access to social networks inside of prison. These networks and familiarity with the prison culture may also help a person to gain access to resources once in prison. When using the maximum capital perspective, it becomes apparent that having family members who have been incarcerated can increase an inmate's economic, cultural, and social prison capital. It is also important to note that having family members who have been incarcerated will decrease real world capital. If a person rationally chooses the society where he or she can have the best chances of maximizing potential, then it becomes clear that all people will not choose living in the real world. Those having high amounts of prison capital may feel that they

fair better within prison walls. If this is the case, then it is not surprising that they would choose to re-offend upon release.

It may also be helpful to look at whether or not a person has spent prior time in an adult facility from the deterrence and maximum capital perspectives. The specific deterrence model shown in Figure 3.2 suggests that prior punishment should decrease the likelihood of re-offending. If this were truly the case, then it seems that none of the inmates would have reported a likelihood of re-offending, since they were all serving time when this data was collected. One would also expect that those inmates who had been incarcerated prior to their current sentence would be the least likely to re-offend upon release due to increased perceptions of certainty and severity of sanctions. It is the finding in Model 8 that is most damning to the deterrence perspective. Instead of finding that prior punishment decreases the likelihood of re-offending, this model suggests that prior punishment actually increases the likelihood that an inmate will re-offend upon release. Although this finding refutes the deterrence claims, it lends great support to the claims made by the maximum capital model. From the maximum capital perspective, it makes sense that prior punishment would increase an inmate's likelihood of re-offending upon release. Having previously served in an adult facility not only decreases real world economic, cultural, and social capital, but it increases prison economic, cultural, and social capital. Those with criminal records may have a more difficult time obtaining economic security through legitimate means because people are reluctant to hire them. Also, having a criminal record doesn't exactly increase one's standing in his or her community. It may also be the case that those who have previously been incarcerated

already lost their spouses or partners due to the incarceration. Previous incarceration could also be the reason that so many were not the primary caregivers before the most recent incarceration. When economic, cultural, and social potential is limited in the real world, and one has familiarity with prison, then it is not so surprising that an inmate would choose prison over the real world if he or she feels that potential can be maximized within that prison society.

After running and analyzing the various models testing for the effects of capital and deterrence indicators on likelihood of re-offending, it seems that the maximum capital model perspective offers the best conceptualization of why inmates will choose to re-offend upon release. The most important claim of specific deterrence is that prior punishment will keep people from re-offending. If this claim is refuted, as it has been in this research, then it is difficult to support the deterrence perspective, at least as it currently stands. Instead, the idea of prior punishment may fit best into the maximum capital model that has been proposed in this research. After exploring all of the tested indicators for the capital and deterrence models, several indicators were included in the final model. This model will be called the capital punishment model. Table 5.5 lists the coefficients for the capital punishment model. Employment, number of family members who have been incarcerated, marital status, and prior time in adult facility were added to the control variables. Model chi-square increased to 48.039 and was highly statistically significant beyond the .001 level. In the capital punishment model, those who were employed prior to incarceration had lower odds of re-offending than those inmates who did not have a job prior to incarceration, but this indicator did not quite reach statistical

Table 5.5. Logistic Regression Coefficients and Odds Ratios for the Capital Punishment Model.

	Control Model		Capital Model	
Variables	B	Exp(B)	B	Exp(B)
Constant	.125	1.133	-.246	.782
Sex (1=male)	.206	1.228	.266	1.305
Race (1=black)	.220	1.246	.015	1.015
Age	-.009	.991	-.003	.997
Employment (1=employed)			-.289	.749 (.089)
# Family Incarcerated			.168	1.182** (.006)
Marital Status (1=married)			-.602	.548** (.004)
Prior time in adult facility (1=yes)			.624	1.866*** (.000)
Model χ^2	6.201		48.039***	
Cox & Snell R^2	.009		.066	

*p<.05, **p<.01, ***p<.001
P-values in parentheses for capital indicators.

significance in the capital punishment model. When controlling for all other independent variables in the model, the odds of re-offending for those inmates who are married are 45% lower than the odds for those inmates who are not married. Also, when controlling for all other independent variables in the model, for every one person increase in number of family members who have been incarcerated, the odds of re-offending increase by 18%. When controlling for other independent variables in the model, the odds of re-offending for those inmates who have previously been incarcerated in an adult facility are 87% greater than the odds for those who have not previously been incarcerated.

CHAPTER VI

DISCUSSION

The purpose of this chapter is to provide a summary of the significant findings of the study, to discuss the limitations of the study, and to suggest further implications of the findings in this study.

Summary of Findings

The primary purpose of this study was to examine the effects of economic, cultural, and social capital, as well as the effects of perceptions of certainty and severity of sanctions, and prior punishment, on likelihood of re-offending. By examining these effects, it was discovered that traditional deterrence and capital indicators alone do not provide a sufficient explanation of likelihood of re-offending. The proposed capital punishment model may provide a better way of conceptualizing offenders' likelihood of re-offending upon release because it considers the effects of real world and prison capital, while paying special attention to the effects of prior punishment.

When analyzing the individual deterrence models, it seems that the perception of certainty of re-arrest has no significant effect on likelihood of re-offending. Also, when analyzing the severity indicators, the only one that had a significant effect on likelihood of re-offending was the length of current sentence. At first glance, this finding seems to indicate that severity of punishment reduces likelihood of re-offending; however, one

must consider that this effect may be due to the physical impossibility of re-offending upon release if an inmate feels he will never be released, or will be too old when released, to re-offend in the first place. The effects of prior punishment were also examined for their effects on likelihood of re-offending. The specific deterrence model claims that prior punishment should reduce the likelihood of re-offending; however, the findings in this study suggest otherwise. The only significant finding for the effect of prior punishment on re-offending was that having been previously incarcerated in an adult facility actually increased likelihood of re-offending.

Because the proposed maximum capital model had never been tested before, the indicators used in this study were simply exploratory in nature. Money made the year prior to incarceration from all sources and employment status the year before incarceration were used as indicators of real world economic capital. After analysis of the model testing the effects of real world economic capital on re-offending, it was discovered that employment status the year before incarceration was more important in predicting likelihood of re-offending than was the amount of money made the year prior to incarceration. This may be because the indicator for money asked respondents about the money they made from all sources. For many offenders, the responses could have included money made from illegal enterprises. If offenders made money from such enterprises, it is not entirely surprising that they may turn to such activities upon release to provide for the kind of lifestyle that they had grown accustomed to. On the other hand, those who reported employment before incarceration may feel that they will have access to legitimate means of income upon release and will desist from offending. On average,

the odds of re-offending for those inmates who were employed prior to incarceration are 35% less than the odds for those who were not employed prior to incarceration.

Several indicators were used to test the effect of real world cultural capital on re-offending. An inmate's education, the education of his or her parents, and an inmate's grades while in school were expected to have an effect on likelihood of re-offending. These indicators were shown to have no significant effect. Whether or not the inmate's father lived in his or her house while growing up was also expected to have an effect on likelihood of re-offending, but this indicator had no significant effect. Number of an inmate's family members who have ever been incarcerated was also expected to have an effect on likelihood of re-offending. This did have a highly significant effect on re-offending. As expected, the more of an inmate's family members who had ever been incarcerated lowered an inmate's real world cultural capital, and this low real world cultural capital increased the likelihood that an inmate would re-offend upon release. For every one person increase in the number of an inmate's family members who have been incarcerated, the odds of re-offending increase by 18%.

Various indicators of an inmate's real world social capital were also examined for their effects on likelihood of re-offending. How often an inmate communicates with friends and family who are not incarcerated had no significant effect on re-offending. Whether or not an inmate feels that he or she can rely on support from friends and family upon release was also examined, but this had no significant effect on likelihood of re-offending. Whether or not an inmate was the primary caregiver of children before incarceration was also examined for its effect on likelihood of re-offending, and this

indicator was shown to have no significant effect. Because being married raises real world social capital, current marital status was shown to have a significant effect on likelihood of re-offending. The odds of re-offending for those inmates who are married are 45% less than the odds for those inmates who are not married.

Two of the most significant findings of this study suggest that being married and having access to employment, which increase real world capital, will reduce the likelihood of re-offending upon release. Such findings are not entirely new. Previous research has shown that marriages and jobs may reduce offending because they provide sources of informal control as well as access to positive networks (Sampson and Laub 1993; Hagan 1993; Uggen 2000). Other research has shown an association between incarceration and such things as family instability, unemployment, and recidivism (Hirsch et al. 2002; Sampson and Laub 1993; Hagan and Dinovitzer 1999; Western et al. 2000; Uggen and Manza 2002; Pettit and Western 2004). Another important finding was that the number of an inmate's family members who have been incarcerated increases the likelihood of re-offending upon release. This is because having a family with a criminal reputation reduces real world capital; however, having family members who are familiar with the prison culture can actually increase an inmate's prison capital. This finding lends great support to the proposed maximum capital argument.

It has been the purpose of this research to examine why most inmates self-report a likelihood of re-offending upon release, a point that blatantly contradicts punishment's supposed deterrent effect. Though the effects of employment, marital status, and number of family members who have been incarcerated on likelihood of re-offending are

significant and important, the most important finding for this study is that prior punishment increases likelihood of re-offending. This fact alone discredits the claims of traditional deterrence. It is surprising enough that offenders who are currently serving prison sentences would report any likelihood of re-offending upon release, since their perceptions of certainty and severity of punishment are relatively fresh on their minds. But it is even more surprising that those inmates who are serving at least their second sentence in an adult facility would still report a likelihood of re-offending upon their next release. If anyone should have strong perceptions of the certainty and severity of punishment, it should be these offenders; however, the odds of these offenders re-offending upon release are 87% greater than the odds for those offenders who are serving their first sentence in an adult facility. This finding alone calls for the death of the traditional deterrence and supports the capital punishment model (Figure 6.1).

Limitations of the Study

There are several limitations of this study that should be mentioned. First of all, the sample is drawn from one prison population. It may be difficult to generalize the results of this study to all offenders across all parts of the country. Also, the inmates contained in the sample have been serving time on their current sentence for less than a year. It may be possible that inmates who have served longer amounts of time have varying perceptions of sanction severity, and this could possibly change the number of inmates reporting a likelihood of re-offending upon release.

Another potential limitation of the study has to do with the indicators that were chosen to represent the varying amounts of real world capital and elements of deterrence.

Because the original questionnaire was not designed to test for capital indicators, per se, it may be possible that the variables chosen from this survey to represent varying levels of capital are not sufficient indicators in the first place.

Another limitation of the study is that it does not measure actual re-offending. It measures self-reported likelihood of re-offending. It is possible that those who report a likelihood of re-offending may not ever actually re-offend. So, in essence we are measuring differences in hypothetical likelihoods of re-offending.

There are also problems with the data used in this study. The main problem is that there are several missing values for important indicators. To keep from losing cases, the mean value was substituted for the missing values. This could prove problematic, especially in cases of things such as money and parent's education, where no responses probably indicate lower amounts than will be represented by the mean value.

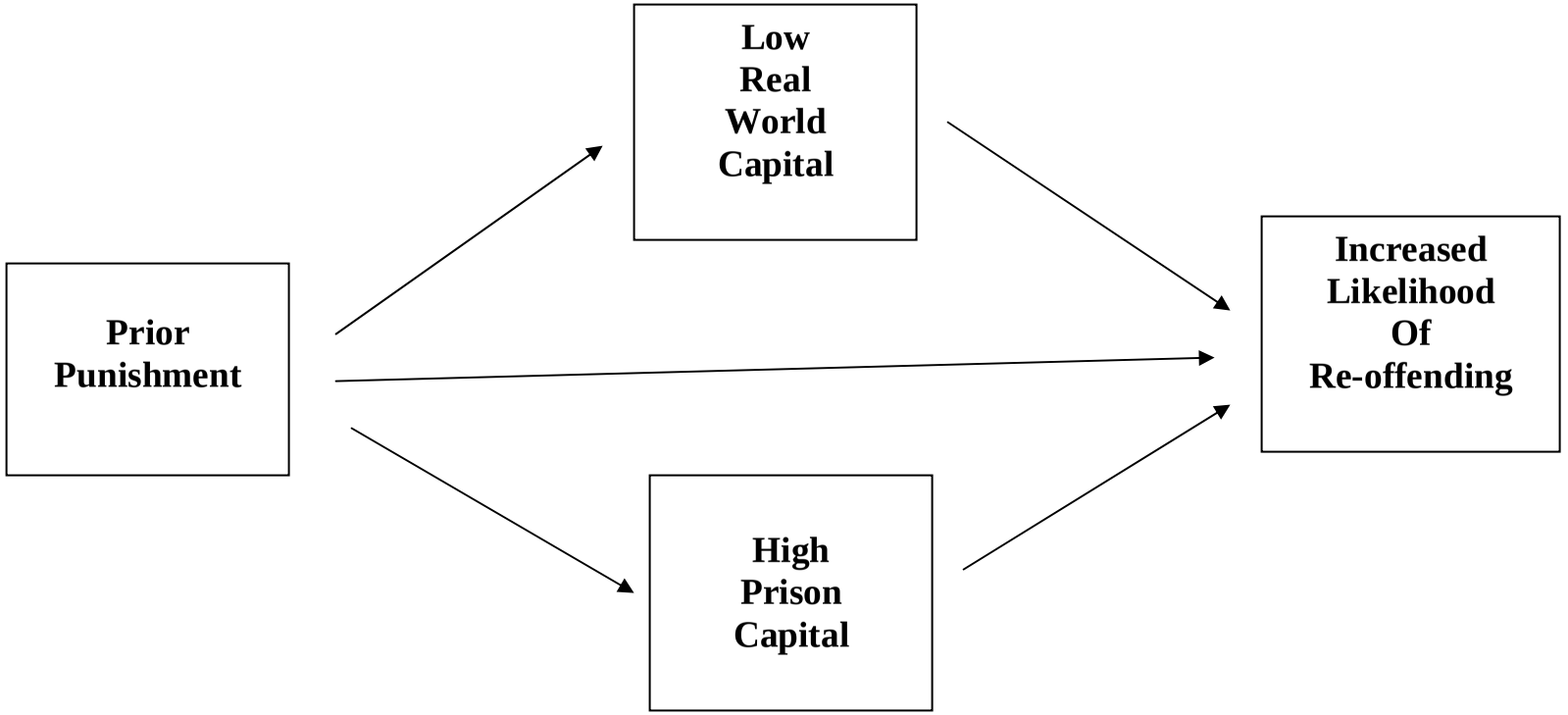

Figure 6.1. Capital Punishment Model of Re-Offending

Implications of the Study

Regardless of the limitations of this study, there are several important implications for the findings. Most importantly, this study puts another nail in the coffin of deterrence. It sheds further light on the effects of punishment and should have policy implications.

This research adds to the fairly new line of thought that explores the positive punishment effect. Pogarsky and Piquero (2003) examined why recent studies have shown that individuals who have received prior punishment are more likely to re-offend. The authors believe that offenders make decisions based on the "gambler's fallacy." After receiving punishment, offenders decide that they would have to be extremely unlucky to be apprehended again for criminal activity. Pogarsky and Piquero refer to this as the "resetting" effect. Offenders actually re-estimate their likelihood of being apprehended again.

Like Pogarsky and Piquero's resetting effect, the capital punishment model of re-offending will also suggest that prior punishment does not reduce the likelihood of re-offending. In fact, in this model, prior punishment may actually increase one's likelihood of re-offending. Having received prior punishment, in particular a prison sentence, an offender is able to build up his prison capital. Some may even argue that life in prison is easier than life on the outside. If an offender views that he has more potential within a prison social system than in the real world, then it makes sense that he would choose to re-offend upon release. If this is the case, then prior punishment can be viewed as

increasing the likelihood of re-offending, completely going against traditional deterrence arguments.

A main advantage of this study is that is uses an offender population to draw conclusions about the effects of prior punishment and real world capital on likelihood of re-offending. As mentioned earlier, the most important finding of this research is that prior punishment actually increases the likelihood of re-offending. When considering the significant relationships between being married, having access to employment, and re-offending, it may prove useful for policy makers to design criminal punishments that help retain and restore relationships with significant others and employers instead of destroying them, as the current system tends to do. It may be the case that prior punishment increases re-offending because such ties to the real world are destroyed with lengthy prison sentences designed without rehabilitation, education, and restoration in mind. Because incarceration destroys employment and relationship opportunities, it is easy for offenders to slip back into their criminal ways (Sampson and Laub 1993; Warr 1998). When offenders' sentences are up, they are simply placed back into the real world, often with no means to adapt to this new life. It is not surprising that so many will choose to re-offend and return to the prison world when they feel that they fair best in a captive situation. So many offend because they feel they have nothing to lose by formal sanctions, such as going to prison. And when considering that a family culture of criminality may exist for some offenders, it is unlikely that informal networks of social control will have any effect on re-offending for these offenders. Until offenders feel that

they can best maximize their potential in the real world as compared to a prison society, then there is little hope that we will see a drop in recidivism rates.

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