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An Examination of the Prison Environment: An Analysis of  
Inmate Concerns Across Eight Environmental Dimensions

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A thesis  
presented to  
the faculty of the Department of Criminal Justice and Criminology  
East Tennessee State University

In partial fulfillment  
of the requirements for the degree  
Masters of Arts in Criminal Justice and Criminology

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by  
Andrew Ryan Bradford  
August 2006

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Keywords: Prison, Inmate, Environment, Dimensions

## ABSTRACT

### An Examination of the Prison Environment: An Analysis of Inmate Concerns Across Eight Environmental Dimensions

by  
Andrew Ryan Bradford

This study was undertaken to better understand inmate concerns of the prison environment across 8 dimensions. The 8 dimensions examined in this study were activity, emotional feedback, freedom, privacy, safety, social, structure, and support. To determine the importance of these dimensions among inmates, secondary data were used in an attempt to replicate and validate the findings from Wright's (1985) study, which used a prison environment inventory instrument to assess inmate concerns. The secondary data consisted of an inmate sample of 1,054 taken from 30 prisons of minimum, medium, maximum, and close security across the states of Tennessee, Kentucky, and Ohio. Principal component analysis did not support Wright's findings of 8 dimensions but indicated that safety was the primary dimension of concern. Confirmatory factor analysis using structural equation modeling did find support for Wright's thesis.

## ACKNOWLEDGEMENTS

Before beginning this project, I was unsure of what to expect. As the days turned into weeks, and the weeks turned into months, I am now sure that I made the right choice. The journey over the past 6 months has proved to be a positive and important experience. Throughout this experience, I have encountered many difficult tasks, all of which have shaped me into a better student. However, even though I have been able to successfully navigate my way through the undulating ride of a thesis, I could not have done it had not been for the continued support of certain individuals.

I would like to begin by offering my thanks to my Mom and Dad. Thank you both for supporting and encouraging me throughout this process. But more importantly, thank you for believing in me. To my committee members, thank you all for your insight, guidance, and assistance over the past 6 months. I wish you all continued success in your academic endeavors and research pursuits.

## CONTENTS

	Page
ABSTRACT.....	2
ACKNOWLEDGEMENTS.....	3
LIST OF TABLES.....	6
Chapter	
1. INTRODUCTION.....	8
Definition of the Prison.....	11
The Physical Environment.....	12
Current Study.....	13
Objectives.....	14
Summary.....	14
2. LITERATURE REVIEW.....	16
Prison Environment.....	16
Activity.....	17
Emotional Feedback.....	18
Freedom.....	18
Safety.....	20
Social.....	21
Structure.....	22
Support.....	23
Security Level and Prison Environment.....	25
Consequences of the Environment.....	28
Theoretical Background.....	31
Reducing Stressors of the Environment.....	33
Summary.....	35

3. METHODOLOGY.....	36
Data.....	36
Population.....	36
Sampling Method.....	37
Response Rates.....	39
Variables.....	40
Independent.....	40
Dependent.....	40
Analyses.....	42
Summary.....	43
4. RESULTS.....	44
Scale Item Distribution of Wright’s (1985) 48-Item PEI Scale.....	45
Principal Component Analysis.....	50
Total Inmate Prison Security Sample.....	53
Medium and Maximum Security.....	55
Minimum Security.....	57
Medium Security.....	59
Maximum Security.....	61
Close Security.....	63
Confirmatory Factor Analysis Using Structural Equation Modeling.....	65
Structural Equation Modeling.....	65
Fit Indices.....	67
Root Mean Square Error of Approximation.....	67
Summary.....	68
5. DISCUSSION.....	69
Findings.....	69
Principal Component Analysis.....	69

Total Inmate Sample.....	70
Medium and Maximum Security.....	70
Minimum.....	70
Medium.....	71
Maximum.....	71
Close.....	72
Confirmatory Factor Analysis Using Structural Equation Modeling.....	72
Implications.....	73
Limitations.....	75
Recommendations.....	76
Conclusion.....	77
REFERENCES.....	81
VITA.....	88

## LIST OF TABLES

Table	Page
1. Prison Environment Inventory Scale.....	46
2. Summary of Factor Analysis for Variables Predicting Environmental Prison Dimensions.....	51
3. Structural Equation Model.....	65

## CHAPTER 1

### INTRODUCTION

The rise of the modern prison has been an eventful and fascinating evolution spanning kingdoms, cultures, and nations. Even though its development spans 4000 years (Peters, 1998), and has encountered many interpretations and changes, there remains a single and prominent feature of the prison. The feature in question is the environment that exists within the prison walls and blankets the inmates in every aspect of their incarceration. This environment consists of a myriad of factors that are byproducts of both the prison and the inmate and which are often negative in nature. These negative environmental factors are a direct result of the interaction between prison and inmates. As a result, the environment of the prison has its own unique identity and composition. To better understand the fruition of this identity and make-up, it is necessary to examine the philosophical foundation of the American prison. In following, I then discuss the definition of the prison, the physical environment of the prison, and the objectives of the current study.

The birthing of the American prison began in the states of Pennsylvania and New York. These two states created and implemented a unique prison and correctional system that would serve as the center of debate on correctional philosophy during the 19th century for not only America but for Western Europe as well. Their respective systems of corrections laid the groundwork not only on design but also on the correctional philosophy of confinement and reform. These correctional systems were designed on a philosophy of confinement and reform, that would occur through a combination of religion, regimentation, intensive labor, and isolation (Norris & Rothman, 1998). These features would become symbols of the new correctional philosophies known as the Silent and Separate systems, which gave way to creation and construction of the *penitentiary*. As such, it is useful to examine the correctional philosophies of these systems along with their implementation and physical design.

The founding of the separate system, also referred to as the Pennsylvania system, happened shortly after the Revolutionary War (Johnson & Wolfe, 2003). This new system of

correctional discipline was based on total inmate isolation for the length of confinement coupled with complete silence between inmates with exception being made for religious services and contact with staff. This philosophy of confinement was thought to encourage inmate reflection of their life and criminal act, which in turn would allow them to seek the proper path to redemption (Rothman, 1998). To encourage redemption, inmate cells contained a Bible. On Sunday, religious services were conducted. Inmates also ate, exercised, worked, and slept in this environment of total and complete isolation. However, inmates were allowed to see certain visitors (Rothman). In order to accommodate this philosophy of imprisonment, prisons built in Pennsylvania were designed to prevent verbal communication and visual contact between cells. This was made possible by thick walls and solid wood doors. The inmates were individually housed side by side down long halls extending out from a central hub. The central hub is also the spot in which the religious ceremony would be conducted. These halls extending out from a central hub constitute a radial design, that was thought to help monitor and prevent communication between inmates.

Before implementing the silent system in New York state, also known as the Auburn or congregate system, there was initial trial of the separate system at Newgate prison (Johnson & Wolfe, 2003). The silent system is quite similar to the separate system given its philosophy of inmate silence and isolation among inmates. Though, the system did allow for inmates to work and eat together. However, during these periods, inmates were strictly prohibited from looking at each other. As such, inmates of the silent system were not kept entirely separate and contrary to the separate system “ample opportunity was provided for essential communication” (p. 189) within the silent system. This communication, though, was reserved between guard and inmate or appropriate visitors. Thus, the philosophy and practice of silence seen in the separate system was not as strictly maintained in the silent system. However, in comparing these two systems Rothman (1998) argues that “the differences between the two plans do not seem very notable” and that each system “emphasized isolation, obedience, and a steady routine of labor” (p. 105).

Of these two systems, it is the silent system that became the preference of American correctional philosophy during the 1800s due to several reasons. First, the design of the Silent prison is much simpler than the Separate system prison given its box shape compared to the radial design. This allowed for cheaper prisons to be built (Stanko, Gillespie, & Crews, 2004). Second, the Silent system, from the use of prison shops and the profits they generated, helped in alleviating the overall cost of prison operation (Johnson & Wolfe, 2003). Third, as Johnson and Wolfe go on to argue, the Silent system allowed for relief “from the strict discipline of police life” (p. 189) and for short duration's of strictly observed conversation on national or religious holidays. However, prison factors such as crowding and a new rising criminal population (Rothman, 1998) would alter this correctional philosophy.

Even though the silent or Auburn system became the model for the American prison and correctional philosophy, the system eventually gave way to overcrowding, corruption, and inhumane treatment of inmates (Rotman, 1998). These new features of the prison were indicative of a changing correctional philosophy. This change in philosophy is made evident by the prisons after the Civil War that were constructed to house a large number of inmates at low cost (Rotman).

The Separate and Silent systems were critical issues of correctional philosophy and debate. Several of their tenets, such as inmate isolation and prison labor, along with other bodies of argument form the body of much research on the prison environment (e.g., see Carriere, 1980; Cooper, 1974; Dinitz, 1981; Dumond, 1992; Lawrence & Andrews, 2004; MacKenzie & Goodstein, 1985; Ruback & Carr, 1984; Ruback, Carr, & Hopper, 1986; Wright, 1991). The prison environment contains a large number of characteristics that directly and indirectly affect the inmate population. As such, it is necessary to be cognizant of the relationship that exists between the inmate and the environment.

The environment inmates are confined in consists of two distinct entities: structural and individual. The individual entities are not necessarily physical objects found in the prison environment. Rather, these structural entities are made up of eight environmental dimensions

that address: personal freedom, inmate activities, support, structure, social relations, and emotional feedback for the inmate from the prison staff, and inmate privacy and safety (Toch, 1977). These eight dimensions are seen as making up the primary environmental concerns of the inmate that are shared among the prison population.

The structural bodies for this paper center on the environmental definition of the prison, such as its security level, design, location, and housing. By discussing these four areas, it will form a clearer picture of the structural nature of the prison and allow for Toch's (1977) eight environmental dimensions to be placed in better context.

### Definition of the Prison

When studying the prison, it is necessary to have an understanding of its purpose and unintended consequences. In the strictest sense, Norris and Rothman (1998) contend that the prison is for the housing and confinement of those convicted as punishment made evident by the 2,135,901 inmates currently incarcerated (Bureau of Justice Statistics, 2005). This idea is shared by Hicks and Alpert (1978), who view the prison and its function of confinement as the societal consequence for those who engage in deviant behavior.

The prison, though, is more than an article or structure of confinement; it is a tool of social control as maintained by Goldsmith (1997). This tool of social control aims to “reform the criminal, to change him from a social danger and an economic liability into a peaceful and useful citizen” (Norris & Rothman, p. XII) encounters conflicting and undermining environmental factors such as isolation, violence, limited privacy, and dissemination of the criminal trade, which occur in a seminary of vice, sometimes with the participation of guards, as one of their [inmate's] strategies for making their lives more bearable” (Goldsmith, p. 110). This tool of control, though, is not simply a method for isolating inmates and prohibiting movement. It can serve as an apprenticeship for inmates to learn new criminal skills. More so, the prison, as an institution and an environment, is manipulated by both inmate and guard to help ease the passing of time and work and to sustain some individual identity within the institution, which can undermine the intended purpose of the prison. In short order, to understand the prison and its

purpose, “we must see prison life as something more than a matter of walls and bars, of cells, and locks...we must see the prisons as a society within a society” (Sykes, 1958, p. xii).

Once an inmate is surrounded by the prison walls, he or she becomes subject to the operation and function of the institution. Gillespie (2003) maintains that prisons operate in a manner in which they exert their influence upon the social relations of inmates who reside within the walls. The influence in question is an important issue and is not relegated to the dimension of social relations. It extends into other dimensions such as activities, freedom, and support. In effect, the prison influence that is impressed upon inmates is similar to that of the community influence they came under prior to prison. This prison influence acts as a substitution for the mores and norms one developed along with the experiences they had as a member of society. Accordingly, this substitution carries its own mores, norms, and structural functions of the prison that are impressed upon the inmate.

#### The Physical Environment

The location of a prison is an issue of importance for the inmates because it can influence the design of the prison and its correctional philosophy, which is found in past ideas of reform such as the Pennsylvania system in 1830s. McGowen (1998) argues that the architecture of the prison was to prevent “the sight of a hillside or distant buildings beyond the wall [which] was believed to frustrate reform” (p. 91). This idea addresses the influence of location on design. However, because prisons are not isolated to urban centers, it is important to also examine their rural counterparts, though there is not a great degree of difference between the structures as a whole. Rural prisons are not constricted by a lack of geographical space that urban prisons often may encounter and are seen to be therapeutic due to the absence of such features as the sites and sounds of the city structure. However, the threat of breakout prevents the inmate from escaping into an urban center but can also make it difficult to find him or her if the prison is next to a heavily wooded area.

When a location is chosen, there are several important and essential features that must be present before a prison can be constructed. These essentials, according to Klein (1969), are: a

dry location free of negative elements, moderate climate, a steady water supply, proper drainage for waste, steady supply of natural resources, accessible transportation routes, distance to populated communities, access to material for construction, and a pleasant exterior setting. These factors can play a prominent role in establishing the nature of the internal prison environment such as a shortage on water and its possible effect on waste disposal in inmate cells. Seasonal temperatures can be a serious issue to inmates who are housed in antiquated prison units that lack the necessary heating or cooling systems that afford climate comfort. And, the distance of the prison to a populated community becomes paramount should an inmate escape.

The housing types examined in this paper are dormitory/barracks and cell type. Dormitory style housing can be found in minimum and medium prisons whereas cell type can be found in medium, maximum, close, and super maximum. To ensure inmate isolation, cell type housing is used. The cell style housing is thought to prevent inmates from exchanging ideas of vice and to foster philosophies of reform such as that of the Pennsylvania or Silent system.

#### Current Study

The purpose of this study is to understand inmate concerns of the prison environment across four prison security levels of minimum, medium, close and maximum via a secondary data set obtained from Gillespie (2003). The secondary data consisted of inmate perceptions and concerns of the prison environment that were obtained via an inmate survey. There were 1,054 inmates who participated in the study and completed the survey across 30 prisons. The inmate surveys use Wright's (1985) Prison Environment Inventory tool to assess the prison environment.

The primary purpose of this thesis project involves confirming the factor structure of Wright's (1985) Prison Environment Inventory using exploratory and confirmatory factor analytic methods. These dimensions of the prison environment will also be examined across four prison security levels.

The theory that will be used in which this study will be placed into context is symbolic interactionism. Symbolic interactionism presents an exchange between self and society. This

dynamic centers on the relative importance of social identity versus personal identity for the self-concept (Harding, 2003). This theory has a direct application to the prison environment due to the interplay that arises from the establishment between the social constructs of prison and the inmate's constructs of identity. For example, an inmate who maintains a strong identity of confidence in a prison facility may be coerced into trafficking drugs at the expense of being seen as a snitch. Thus, he is compelled to commit to the coercive act in order to retain his identity among the inmate population.

When this theory is placed into the context of the prison environment, it will allow for a more formal understanding of the prison environment and of the concerns inmates experience while incarcerated. More so, these inmate concerns can enable similarities to be drawn between the prison and other institutions such as the school or the home. However, for these similarities to be drawn, two critical areas must be accounted for. First, the factors of one of the eight dimensions found in prison must also be found in the institution that is being compared externally, such as school or home. Second, the similarities must be drawn in the proper context such as concerns for the social dimension of prison being applied to social concerns of the school or home.

### Objectives

It is hypothesized that this study will find all eight environmental dimensions to be manifested in the prison environment according to the findings of Wright (1985). This study will determine which of those dimensions are of primary concern among inmates. Based on the findings from the analyses, this study will then determine if Wright's (1985) Prison Environment Inventory scale is an accurate and reliable tool for measuring the environmental dimensions of the prison.

### Summary

In sum, the goals of this study concern three areas of focus. The first area will discuss the nature and components of the prison based on Toch's (1977) eight dimensions of the prison environment. The second area will present inmate concerns of the prison environment through

the process of factor analysis using secondary data obtained from Gillespie (2003). The third area will then present recommendations for reducing problematic components of the prison environment that inmates experience while incarcerated.

## CHAPTER 2

### LITERATURE REVIEW

The prison environment contains a large number of stimuli (i.e. factors) that impacts both the behavior of inmates and their attitudes of the prison environment. This chapter presents and reviews information about the following areas: prison environment; types of prison security (i.e., minimum, medium, close, and maximum); consequences of the prison environment incorporating personal inmate accounts; and methods of reducing inmate stressors of the environment.

#### Prison Environment

Study and analysis of prison environment, along with its subsequent features, composes the body of much research and analysis (Bonta & Gendreau, 1990; Carriere, 1980; King, 1999; Lawrence & Andrews, 2004; Wright 1985) and assists in allowing for a better understanding of the prison milieu. By studying the prison environment and the habits, behavior systems, customs, traditions, inmate codes, laws, and rules (Clemmer, 1958) that are features the prison environment, it will allow for insight into an unseen world that can be viewed from eight specific dimensions (Toch, 1977). Those dimensions are as follows: structure, privacy, support, activities, emotional support, freedom, social relations, and safety. Wright (1985) presents a clear and succinct assessment on the meaning of these dimensions:

Specifically, these dimensions are global concerns of inmates that are universally perceived. They represent intervening variables that occur at the point of transaction between person and environment, are influenced and determined by organizational structure and process, and in turn influence behavior within the organization.” (p. 260)

When viewed in the proper context, some dimensions may be seen as applying to a larger realm of the prison environment such as privacy or structure. However, it is important to view each dimension with equal status and importance.

### Activity

Activities play an important role in reducing the impact of the daily routine. Activities are useful for reducing stress and tensions between inmates and staff and to provide relief from the monotony. Activities within prisons extend to physical recreation, vocational training courses, academic training courses, movie nights, or simply watching television.

Frey and Delaney (1996) in studying leisure activities recognize that inmate participation in activities, specifically recreational, has been reinforced within the prison environment as a useful means of reducing and calming “the monotony of prison life and as a safety valve to release built-up emotions and tensions” (p. 80). However, even though inmate encouragement has been a relatively recent occurrence when applied to the history of the American prison, the idea of recreational activities serving as a rehabilitative measure is not. During the era of the separate system, inmate cells constructed in Pennsylvania contained small yards for recreation and a Bible. The time allowed in the cell yards for recreation was thought to help in reforming the inmate as was the Bible. The use of the Bible as tool of reform can still be seen in today’s prisons and carries some substance. In a study of religious prison programs, Johnson (2004) found that inmates “most active in Bible studies [sic] were significantly less likely to be arrested during a 1-year follow-up period” (p. 329). Additionally, those involved in such programs were less likely to recidivate as shown in a 1-year follow up study.

In short order, activities are an important factor of the prison environment because they extend beyond the traditional usage for filling in time or reducing stress. Brayshaw argues ( as cited in Frey and Delaney, 1996) that prison activities are “viewed as an avenue for reducing recidivism by providing prisoners with a lifestyle orientation, transferable leisure skills, and perhaps enhanced self-esteem” (p. 81).

### Emotional Feedback

Emotional feedback concerns several areas. It concerns the relationships guards form with inmates and the rapport they establish along with relations among other inmates. To a greater degree, this dimension also concerns the frequency of visits or letters inmates receive and the measurement of inmate feelings.

For inmates who receive visitors, both males and females, the interaction between the two parties is an important experience and can provide the inmate with a short release from the daily doldrums of prison life. In a study that examined adjustment among older inmates, Kratoski and Babb (1990) found that females who were serving lengthy sentences are less likely to receive visitors than males as they aged. This finding shares some correlation to a study of a British female prison that found “contacts with the local community to be minimal” (Mawby, 1982, p. 29). This finding was based on the location of the female prison and the security setting. Thus, if the prison is in a rural setting, inmates are less likely to receive visitors due to such features as geographical constraints posed on visitors. Conversely, if the prison is located in or near to an urban setting, inmates may be more likely for visitations due to proximity and transportation options. Kratoski and Babb found that depression and anxiety were associated with their findings on visitation; additionally, sentence length, according to Borrill et al. (2003), was correlated with acts of self-harm such as suicide with higher rates found for those on remand.

In sum, emotional support has a far reaching impact on inmates and is not limited to the relationships inmates form while in prison. It extends beyond into the outside familial ties and written correspondence. As such, these two areas can have a profound impact on the inmate as the research has shown.

### Freedom

Freedom within the prison is primarily concerned with inmate autonomy. This inmate autonomy, though, is affected by several sources such as other inmates or correctional staff. In the matter of the correctional staff, their direct control over inmate autonomy can lead inmates to

feel as if they are treated unfairly (Sykes, 1958), which can create unneeded stress. Freedom also entails such factors as inmate practice of religion and choosing to participate in prison activities such as team sports or academics. This dimension can also be found within the manner in which inmates spend their personal time such as reading or sleeping.

Control of the environment is a critical issue when studying the dimension of freedom. If inmates feel that they have some control over their lives, it may alleviate or control stress. However, if inmates feel they have no control, they may experience elevated levels of stress. These levels of stress inmates experience is dictated by environmental factors and is maintained by Ruback et al. (1986). In a study of two prisons that examined inmate perceptions of control over their environment, Ruback et al. found these perceptions to be correlated with the housing arrangements of the prison, the stress resulting from incarceration, and the physical well being of the inmates. They go on to report that the findings remained steady even when the housing facilities were held constant.

### Privacy

Privacy focuses on areas of inmate isolation, noise, overcrowding, respect to territory, (Boudouris & Brady, 1981) and guard encroachment. Concerning noise, rising levels of cell block noise can undermine the quality of inmate privacy. Conversely, steady levels of low cell block noise can prolong the quality of inmate privacy. Interaction between guards and inmates can affect privacy in such cases as when the inmates are forced from their cell to check for contraband. Crowding can serve as a catalyst for violence and assaults because it undermines inmate privacy and creates hostile situations. Additionally, it can also lead to violations of inmate territory that may give rise to potentially dangerous situations between inmates and/or guards.

Crowding is a prominent feature of many prisons and carries several important issues worthy of mention. In a study on crowding in female prisons, Ruback and Carr (1984) found that crowding was correlated to several negative effects dependent on the “population average and the log of the infraction rate” (p. 68) of the prison facility. Lawrence and Andrews (2004)

found that interpreting events as aggressive were correlated to experiences of crowding with those inmates involved in aggressive acts seen as “hostile, intentional, and malevolent” (p. 281). Upon further examination of prison crowding, Lawrence and Andrews, supported by Bonta and Gendreau (1990), found that crowding was correlated with increased levels of “arousal, stress, and fatigue” (p. 281). Suedfeld (1980) cited violation of ‘personal space’ as a major contributor to violence and posited it on crowding, underlie by the combination of high density and close proximity.

### Safety

Inmate safety is a primary issue of importance and concern within the prison because it affects both inmates and the correctional staff. This category is comprised primarily of inmate on inmate violence, acts of theft, guard brutality, and security. Inmate on inmate violence concerns sexual assault, sexual coercion, or violent altercations. Guard brutality concerns physically violent acts between guards and inmates as well as mental or emotional abuse. Guard security concerns protection afforded to inmates at risk of physical violence.

Prison violence is a mainstream topic of study in correctional literature (Atlas, 1984; Cooper, 1974; Ellis, Grasmick, & Bernard, 1974) and coincides with victimization (O'Donnel & Edgar, 1998). Atlas states that “the incarceration of convicted offenders for long periods of time is a very stressful situation, and violent, destructive behavior by inmates is not a new phenomenon” (p. 276). This statement, though obvious in nature, is an issue of great importance and is relevant to this dimension and study. Prisons, due to their mixing of inmate experiences and conflicting attitudes, opinions, and behavior, breed a climate that is hostile and life threatening. Though, for this climate to be produced, it is dependent on not just inmate characteristics but also physical, or structural, characteristics. However, and as Atlas suggests, in analyzing prison violence and its causes, there is difficulty in knowing the exact reasons for it. As such, we are left with a myriad of “other” potential causes such as temperature, color, and noise (Atlas) that extend beyond the typical environmental factors such as crowding, guard abuse, or reduced leisure time. These “other” potential causes are important to the study of

safety among inmates and as an environmental characteristic because they can exaggerate the existing conditions.

### Social

Social elements of the internal prison environment play an important role during the inmate's length of incarceration. The social dimension concerns such factors as inmates conversing with each other and forming friendships during incarceration, both of which help in numbing the effects of confinement and sentence length. Social elements also enable inmates to become involved with social groups as well as forming relationships with prison guards.

The inmate culture that is found within prisons along with its effects on inmates is an important component of the social dimension of the prison environment. To better understand inmate culture, Cressey (1958) states that it is useful to think of "social structure and social processes [of inmates] operating reciprocally as a force in the formation of attitudes in individuals" (p. 295). Platek (1990) positions that "norms, customs, rituals, language, and mannerisms" (p. 459) make up prison culture. These norms, customs, rituals, language, and mannerisms are a response to the laws and structure of the institution.

From Cressey's (1958) assertion of social structure and processes, he maintains that two important structural aspects are directly tied to the formation of attitudes: differences among staff and inmates, and the formation of primary and semi-primary groups. These primary and semi-primary groups allows for the maintenance of social processes. These attitudes he mentions are tied into the inmate code. Leger and Barnes (1986) view the inmate code as a symbol of attitudes that are anti-prison authority and are a result of imprisonment. Once inmates fall under the umbrage of imprisonment, they become a member of the prison (Hicks & Alpert, 1978; Mitford, 1973). Cressey's argument for structural aspects serving as the mold for attitudinal formation is strengthened by Platek's (1990) assertion that prisons invariably subvert influence on the inmates.

Zingraff maintains that assimilation into the inmate culture is determined by several factors that are "priority of interpersonal contact; sentence length; involvement in criminal

behavior; post release expectations; and contact with free society” (p. 278-279). Priority of interpersonal contact concerns the importance inmates place on forming relationships among other inmates. Involvement in criminal behavior concerns that which inmates experienced or engaged in prior to their incarceration. Post release expectations concerns the idea that inmates will experience a reduction in the effects of imprisonment. Contact with free society is based on engagement in positive contact with society while incarcerated. If so, they are less likely to turn to the inmate population for support or character building.

This process of being assimilated into the prison culture “involves the extent to which prisoners adopt norms that are indicative of the inmate subculture” (Gillespie, 2003, p. 1). This process is enabled through an inmate’s interaction with his or her fellow inmates as well as with the staff and can have a significant impact on inmate behavior depending on how they react to them. This process is dependent on the “extent to which the inmate is positively oriented toward and interacts with other inmates on the one hand and staff on the other” (Akers, Hayner & Gruninger, 1977, p. 544). This process, as reported by Wright and Goodstein (1989), is influenced by specific characteristics that affect and shape the behavior of inmates. In following with Wright and Goodstein, personal and prison characteristics are investigated in order to show which one of the two has the greater impact on inmates’ perceptions of the prison environment.

### Structure

The structure of the prison concerns several aspects of daily prison life and is comprised of clearly understood rules, disciplinary procedures, and order (Toch, 1977). The behavior and disposition of inmates is heavily influenced by rules set forth by the prison staff. These rules are used primarily to maintain orderliness and to discourage deviant behavior. In the event that a rule is violated by an inmate, there is a punishment that follows in suit. In order to maintain the effectiveness of rules and punishments, it is necessary that the prison staff and the inmate are able to understand both the application and the consequences for breaking rules. Structure, though, is not a sole application of rules and punishments. It is also applied to the availability of prison services such as showering or recreation. Additionally, much like the influence rules have

on inmate behavior, lack of prison services or refusal of use can also affect behavior and disposition.

### Support

Support within the prison centers on counseling, self-improvement, and a need for two-way communication (Boudouris & Hardy, 1981). Self-improvement can include such measures as educational and vocational enrichment. Educational enrichment is founded on programs that already exist in the prison that can assist in inmates obtaining their GED or advanced degrees of study. Vocational enrichment can allow for inmates to develop a new trade skill such as carpentry and facilitate the transition from prison to society upon release with finding a new job. Vocational programs can also help inmates to bettering existing trade skills. A side effect of these two types of programs is that the time inmates spend in the program can reduce the stress of prison routine and fill in time that may have been spent in the cell.

Inmate counseling may be needed after being involved in a violent altercation between inmates or if a guard has harassed an inmate. Inmate counseling, though, can also exist in the form of an inmate receiving encouragement from a guard. The daily regiment of inmate prison life can lead to the development of negative mental and physical effects (Cooper, 1974; Eliason, Taylor, & Williams, 2004; Kratcoski & Babb, 1990; MacKenzie & Goodstein, 1985). Of these negative effects, depression is a serious and real concern for inmates as well as for the correctional staff. Cooper sees depression as a common theme of prison incarceration due to the very nature of prison. Cooper asserts that depression among inmates could be better maintained if there were adequate coping mechanisms within the prison such as “trained personnel, psychiatrists, psychologists, and social workers [that can] cope with the problems of depression in prison” (p. 218). The inadequacies of these coping resources can exaggerate existing problems. In a study from Mackenzie and Goodstein (1985) they report that even if inadequate coping resources exist within the prison administration, inmates with longer sentences develop mechanisms to cope with the negative affects of prison such as depression. Prison staff short on these resources may be able to offset some of the difficulties inmates encounter such as

depression by, as Suedfeld (1980) mentions, requiring greater personal space for them. From a study on physical health in women's prisons, Eliason et al. argue that "health care for women in prison is severely compromised by punitive security measures and the stigma attached to incarceration" (p. 191).

Correctional officers, or prison guards, serve to control and maintain order within the prisons. Each correctional officer has an assigned duty for which he or she is responsible. These responsibilities include, but are not limited to, ensuring that inmates are kept safe, are fed, receive medical attention when required, and that they follow the rules and operational procedures of the prison. Should an inmate commit a violation against a prison rule or procedure, it is the correctional officers' job at the time of incident to maintain order and authority by writing-up the inmate and following with the prescribed consequence based on the inmate's violation.

Guards, through their contact with inmates, play an integral role in sustaining and shaping the environment within prisons. In order to sustain a functioning prison environment, some guards may find it necessary to exercise physical coercion in the form of physical or verbal intimidation and maintain control of inmates. Marquart (1986) found that physical coercion "was a socially structured and highly organized form of guard behavior" (p. 356). Marquart went on to present four reasons for the use of coercion by guards: to keep and secure order, secure status and respect, to help with advancement, and to strengthen guard cohesion. In analyzing verbal and physical coercion, Marquart found that verbal intimidation led to a degraded self-worth due to humiliation. Verbal coercion lead inmates to feeling "intimidated, ridiculed," or it "destroyed the face of the offending inmate" (p. 350) where acts of physical coercion often included violent assaults which usually occurred in closed areas.

It is important to have an understanding of some of the types of violations inmates encounter while serving time in prison because the stress an inmate experiences from being written up due to a violation invariably has an affect on their immediate environment and interactions. Stephen Stanko (Stanko et al., 2004), an inmate in Ridgeville, South Carolina,

provides the types of violations that apply to the institutions three levels of infractions. Lower-level abuses concern profanity and being found “out of place” (p.174) implying that they are not in their designated prison location. Mid-level abuses and high-level abuses concern aggravated assault, drug use and/or possession, and improper relations with a member of the correctional staff. These types of infractions are ubiquitous across the prison spectrum and create an unneeded source of environmental stress and tension for inmates, especially in matters of rule violations.

### Security Level and Prison Environment

There are different types of prison environments that are unique and carry their own identity. To better understand these unique environments, they must be divided by their security level or setting. These security levels are noted by their physical features such as a guard tower or the presence of concertina wire, the presence of threats to inmates and the frequency of such threats, and the types of inmates housed in these security settings. These security settings are minimum, medium, close, maximum, and supermax. However, the analysis will not include supermax prisons. It is important to discuss this setting in brief due to the problems they pose for inmates.

Prison security levels can be viewed on a hierarchical system of inmate and staff ratio, and security risk of the inmate. This hierarchical system is maintained by the fact that as the security level of the prison increases so does the inmate-to-staff ratio (Bureau of Prisons, 2005). The security risk of the inmate is what determines his or her assigned security level (Chamelin, Fox, & Whisenand, 1975).

Minimum security prisons are for the housing of inmates who are judged as posing the least danger to society (North Carolina Department of Correction, 2005) and who are “believed not to require supervision as strict as the general prison population” (Steele & Jacobs, 1977, p. 70). Due to this classification of inmates, these facilities are thought of as “inmate country clubs.” This idea is maintained by the lack of a strong and definite security presence marked by guard towers, the concertina wire found among higher security settings, and armed guard patrols.

In a report from Steele and Jacobs, they classify minimum security prisons as having more than adequate living environments, more inmate freedom(s), sufficient educational and/or vocational resources, as well as minor safety risks. The physical layout is that of a fence surrounding the prison complex with little or no emphasis on additional security measures such as watch towers or “no man’s land”, which is a small stretch of ground filled with concertina wire between two high prison fences that are also topped with concertina wire. The housing for minimum security facilities is dormitory style that is patrolled by prison guards (North Carolina Department of Correction). Dormitory style housing places a grouping of inmates into one large living space.

The structural symbols that often mark the security setting of a prison can be quite similar among medium and minimum security prisons. Both settings share the similarity of containing a prison fence that circles the facility. Though, unlike minimum security facilities, medium security facilities often do contain watch towers around the facility perimeter. Watch towers are often used to keep watch on inmate movement while they are in the prison yard and moving among buildings. However, there is not a great deal of importance placed on inmate movement restriction (Chameline, Fox, & Whisenand, 1975). This lack of restriction on movement, though, does not indicate a low level of inmate violence or assault. Medium security prisons present an increased risk over minimum security prisons in potential violence and other inmate threats. The housing arrangements in medium security facilities are typically dormitory style that is patrolled by prison guards (North Carolina Department of Correction, 2005); although, medium security facilities can also contain cell type housing.

Close security prisons contain a much stronger security presence than minimum and medium security prison facilities. This is made evident by double fences circling the perimeter, watch towers with armed guards, and armed guard patrols (North Carolina Department of Correction, 2005). Under the close prison facilities, inmate movement is more rigid and supervised. The housing arrangements for close facilities are cell type. The rigid and supervised watch of inmates does not confine them to their cells. Inmates are allowed to leave their cells to

work in prison shops or participate in programs. The threat level in close security prisons is perceived to be higher and more dangerous due to the assessed security level of the inmates.

Maximum security prisons contain the same security features of close facilities. They contain strongly secured facility perimeters and either multiple or single cell housing arrangements (Bureau of Prisons, 2005). These facilities are used to house extremely dangerous inmates who pose a strong risk to society (North Carolina Department of Correction, 2005). The housing arrangement in these facilities is cell type. Inmates are confined to their cells for 23 hours a day. The other hour is used to shower or to exercise which is done in an isolated cage or the cell block (North Carolina Department of Correction). For the inmates confined in this security setting, their movement is strictly enforced and maintained by the use of physical restraints and prison guards.

Supermax is a concept relative to the 20th century. Supermax prisons allow for the handling, according to King (1999), of the “worst of the worst” who are classified as highly predatory and detrimental to prison order and management. The definition of supermax, according to the National Institute for Corrections (as cited in King) includes inmates who have a propensity for violence and/or extreme disruptive behavior. Inmates who are assigned to supermax are housed in “conditions of extreme confinement” (Terry, 2003, p. 48). These conditions of extreme confinement are made evident from the following inmate account who is an inmate in the Indiana Security Housing Unit:

“On the way to rec you have to walk by many cells. The prisoners throw shit and piss on prisoners going by. The officers (KKKops) have a long rope so when the prisoners start throwing this body waste they let the rope loose so the prisoner is four to five feet in front of them. Most times, the shit and piss gets on them anyway. Where we go to rec is always covered in shit. The officers (KKKops) [KKKops is a term used for white correctional officers from black inmates] spray some water out there once a month, but not always. Once a

prisoner has had human waste thrown in his face, hair, etc., it is up to the officers (KKKops) when the prisoner gets a shower. I've seen prisoners go as long as 3-4 days without a shower after being 'gunned down' or 'smoked' - blasted with shit and piss. The throwin of human waste is the norm on the SHU. Everybody has been 'smoked' one time or another. Yes, yours truly as well" (Terry, 2003, p. 51-52).

This inmate account is just one example of the types of inhumane conditions inmates experience while incarcerated in supermax prisons. Other conditions that are found within supermax prisons are complete disregard for correctional staff, overt guard brutality, sharing housing units with mentally ill inmates, and the ubiquitous lockdown (Terry, 2003). Being that these conditions were found among supermax prisons, it would be premature to view them as supermax only conditions. Rather, these conditions could be found across prison security levels given the mixture of inmates and environment conditions.

Having discussed the features of minimum, medium, close, and maximum, it is apparent that each facility is marked by three overall shared factors. These factors are type of inmate housing arrangement, presence of security features, and the security threat of inmates. As a result, each of these factors can be viewed as institutional characteristics.

#### Consequences of the Environment

The prison environment can have a profound and negative impact on the physical, mental, and emotional well being of inmates. For negative effects to come to fruition there needs to be catalysts within the prison environment that enable them. These catalysts constitute a wide number of factors that may include, but not be limited to, theft, overcrowding, riots, violence, poorly structured prison operation, and assaults. Among these catalysts, violence is prominent factor within prisons (Carriere, 1980; O'Donnel & Edgar, 1998; Suedfeld, 1980). Poole & Regoli (1983) suggest that prison violence is indicative of structural characteristics and personal inmate characteristics.

In looking specifically at how the prison environment affects violence, Suedfeld (1980) found three important correlates: spatial intrusions, monotony, and external control. Spatial intrusions concern problems arising from invasion of space, or threats to one's personal space. Monotony concerns boredom and the day-to-day inactivity inmates' experience. External control is dictated by the administration such as rules and regulations, which can be problematic for inmates if a rule limits their privacy or freedom. These three factors serve as catalysts for increasing the propensity of prison violence.

Among other areas related to prison violence is staffing shortage and inmate population (i.e. administration operation and overcrowding). Angola State Louisiana Prison provides a good example of these two factors. In looking at violence, Carriere (1980) found it to be associated with inmate population and staff shortage. When looking at prison riots in Massachusetts during the sixties, Carriere found them to be related to archaic administrative procedure and operation policies.

The correlates provided by Suedfeld (1980) and associations provided by Carriere (1980) should be viewed as not being limited to prison violence. Though, it is important to note that these correlates do not have to all be accounted for when examining a prison issue such as violence. More importantly, these correlates extend into other environmental catalysts such as theft and assault.

Assaults are a common feature of prison violence and can occur for a number of reasons such as retaliation for verbal or physical abuse or as a result of theft (O'Donnel & Edgar, 1998) as made evident in the following inmate account:

"I found phonecards at the telephone. There was no name on them so I took them. He found out, came to my cell. 'Have you got my cards?' I said no. He found out that I did, though, and came back and hit me a number of times. I gave him back the cards. Afterwards he apologized. We shook hands, had a cigarette

and no more problems. I asked for it myself. He didn't want to do it but I lied to him." (p. 269)

This case of inmate assault, according to the authors, is one that is warranted and merited due to the remarks of the inmate concerning the assault. That this case of social control and male bonding assault was viewed as a resolution by the inmate, it can also be seen as a form of bonding rather than a stereotypical act of violence or revenge. Other reasons for assaults could be due to an inmate's incarcerated offense, insecurity over one's cell partner, simple revenge, self-defense, enforcing the collection of either a monetary or non-monetary a debt, or for the simple reason of passing time (O'Donnel & Edgar, 1998).

Theft among inmates is a common occurrence within prisons. Some cases are due to opportunity such as an inmate leaving valuables within easy reach or leaving the cell door open (O'Donnel & Edgar, 1998), while theft may also occur as inmates are working as made evident by the following inmate accounts:

"Once in a blue moon-when there's an easy opportunity. Door ajar. Looked in. Saw the watch on the table. Thought' I haven't got one. I can have one for myself.' If you see something, take it. Just like a burger." (p. 274)

"I was going to work one morning. I thought my door was shut but the bolt was on. After work I came back. Some stuff was gone. Juice, stamps, burn. Just because my door was open." (p. 274)

"I was cleaning. When I came back someone had been in and took everything. All my canteen, burn, bikkies, the lot. £28 [48.00 US dollars] worth. They also took my medicine. It is out of order. He's the same one has been trying to tax me." (p. 274)

The inmate accounts provided in this section construct a vivid picture of the prison reality. The inmate experience and the environment in which they live is predatory, detrimental, and flagrantly intentional for self-serving purposes. The prison environment is influenced by hazardous and contentious features that are enforced upon inmates either by chance such as leaving their cell door open, self-choice, or through the policies of prison administration. The environmental factors discussed in this section have a direct impact on inmates. As a result, inmates are not able to simply brush off episodes such as theft because doing so could be a grievous mistake and forsake their position among inmates making them more of a target. Thus, in order to maintain their position, some inmates are forced to confront these factors which only prolong and recycle the environmental consequences associated with the prison environment.

#### Theoretical Background

Two theories will be provided that explain inmate adaptation and the subsequent behavior and disposition of the inmate. It is important to study these theories because the manner in which inmates adapt to the prison environment can affect inmate concerns such as their social relations in prison, the value placed on activities, of the importance of privacy. In looking at past models of adaptation, Rotman (1998) states that they “intrepe[ted] prisons as closed organizations, with a particular code of norms to which prisoners had to adapt in order to cope with deprivations inherent in total institutions” (p. 166). This statement argues that on the development of early adaptation models they did not take into account the experiences or attitudes that inmates brought with them into prison. Current adaptation models take into account prior inmate experiences and how they affect the inmate prison experience (i.e., how they develop social relationships or interpret emotional feedback). This feature-prior inmate experience-has since become a major component of adaptation models. These adaptation models are importation and functional adaptation. These two models carry an underlying construct theme that “the characteristics of the inmate population determine their adaptive responses to

incarceration” (Poole & Regoli, 1983, p. 216). As such, the characteristics of inmates, such as their attitude or self-image, shape their response to different dimensions of the prison environment (Toch, 1977) such as prison activities or how they view their freedom. Thus, the personal and environmental factors that comprise inmate adaptation theories fit well within the symbolic interactionist paradigm because these theories illustrate how the cultural aspect of the prison environment is socially constructed and mediated through social interaction.

Importation theory, according to Irwin and Cressey (1962), as supported by Sykes (1958), posits that when an inmate enters prison they bring into it their life experiences and background from the outside. This process can interfere with the behavior and the disposition of the inmate if he or she comes into contact with a conflicting environmental factor. Thus, with importation theory, the degree to which the environment affects the inmate depends on the inmate’s experiences before prison. Functional adaptation theory, according to Sykes and Messinger (1960), posits that the behavior and disposition of the inmate is the response to the prison environment. In a study that examined these two adaptation models and prisonization in five countries-United States, Mexico, Spain, West Germany, and England-Akers et al. found support for functional adaptation while not finding support for importation theory. They go onto report that their findings can be generalized across countries in the study thus warranting the theory of functional adaptation. However, even with support for functional adaptation, it carries the caveat that there must be specific preexisting characteristics within the prison environment that have to affect the inmate specifically for them to internalize in order to form their reactions to the environment.

Inmate adjustment to the prison is premised on several facts, such as how an inmate reacts to and internalizes the environment. Wright (1991) presents four areas that compose prison adjustment:

- 1) institutionally recognized disruptiveness,
- 2) self-reported fighting and arguing,
- 3) self-reported internalization of stress, manifested as difficulty in sleeping and

discomfort in the prison setting, and 4) self-reported physical injury and abuse (p 237).

These four ideas of prison adjustment start with the prison institution at the bottom, followed by the inmate population and interactions, and then leading to the individual mental and physical state of the inmate. Features such as stress, discomfort, abuse, and injury are byproducts of the environment manifested by either interaction among inmates or guards, or through certain environment characteristics impressed upon the inmate. Furthermore, adjustment carries “important implications for [inmates], other prisoners, the staff, and members of the communities to which most prisoners eventually will return” (Wright, 1991, p.217). Though, the harmful effects of adjustment can be countered. Research has shown (MacKenzie & Goodstein, 1986; McEwen, 1978; Osgood, 1985) that if some leniency is given towards a regiment of choice and control, inmates can experience reduced levels of stress, as well as abuse, injury, discomfort, and other negative byproducts of the prison environment. Invariably, though, not all inmates could be afforded leniency due to their disposition such as those in supermax prisons. Ultimately, though, the importance of adjustment and its application to the inmate and its influence on how the inmate views the environment, is dependent on the characteristics found within the environment and the security level of the prison.

#### Reducing Stressors of the Environment

In analyzing the many methods presented on inmate stress reduction, there is no one panacea. Rather, it appears that due to the various personalities that are found among inmates, prisons require an approach that includes multiple stress reduction methods that may better suit the broad array of these personalities. This section will present research that is seen as having a possible effect on reducing stressors or concerns of the environment.

The impact of incarceration combined with the environment, according to MacKenzie, Goodstein, and Blouin (1987), depends on the self-control of the inmate. They report that inmates manage self-control through a source of their choice. Though, they do not provide a

definite list of what the sources could be (e.g., reading or painting). This finding can be interpreted as such that the coping mechanism an inmate uses to deal with the stress of the environment is either available within the prison environment or it is an inherent personal quality. This inherent personal coping mechanism (e.g. meditation), or mediating force, is one that an inmate is able to exercise while in confined to his cell without the facilitation of physical recreation, which in this case would be a coping mechanism of the prison environment. Though, if the inmate does not possess some inherent coping mechanism, the prison environment will then serve as the mediating force.

The manner in which coping mechanisms, such as mutual support (Mawby, 1982), apply to inmates is dependent on the nature of the environment. From a study that looked at female offenders and their adjustment to prison, MacKenzie, Robinson, and Campbell (1989) found that if the environment is negatively overwhelming, the female inmate may become reclusive and experience “fear of going mad, thoughts of suicide, worr[y] about becoming a vegetable, [and] anger” (p. 236), which are all seen as symptoms associated while coping with difficulties. To reduce these symptoms or to keep them from occurring, the prison environment needs to contain mechanisms that prevent coping difficulties.

Recreational activities are commonly thought to help reduce the tension and stress of inmates in prison. According to Frey and Delaney (1996) in a study that examined the effects of recreational activities on claims that it fosters rehabilitation and alleviates stress, and having surveyed 1770 inmates, they found no support for such claims. Rather, they reported that the prison administration favors recreation as a gauge for inmate tension that can assist in maintaining a safe environment. Leisure is not intended as a stress reliever but as a method of control.

In implementing certain prison-based programs, prisons may develop new and broad based means of reducing the stressors of the prison environment. Dinitiz (1981) presents three potential prison climates: the safe prison, the industrious prison, and the hopeful prison. The safe prison consists of a small inmate population, no more than 400, who are serving longer than 2

years. The physical layout of the prison should encourage guard and inmate proximity. The industrious prison is “expanded to a level at which there is enough work for everyone to be fully and actively employed” (p.14). Dinitiz asserts that prisons short on industrial programs, resulting in idleness, are marked by violence. The idea that labor can serve as a cure for idleness also finds itself serving as a proper punitive means (Grunhut, 1972). The hopeful prison contains three articles that can turn inmates away from their negative tendencies. Inmates need to be able to choose from available resources, identified as programs that can maintain a positive self-environment. These programs should bring with them incentive for inmate participation. But, if inmates do not wish to participate in the programs, there should be no negative consequences.

#### Summary

The prison environment should be viewed as a socially constructed phenomenon with its own unique structure and identity. Often, prisons carry the image of containing long, dimly lit corridors full of unruly, atavistic men clamoring in their cells. Rather, prisons are complex structures both physically and metaphysically. They contain a unique social system that is formed by multiple realms of the human interaction. These realms, though, are not distinct to the prison. The eight prison dimensions of inmate concerns developed by Toch (1977) are also found within society at large as made evident by the emphasis we place on relationships, laws, recreational activities, desire for secure and stable homes, and emotional support from family and friends. As such, the similarity between prison and society is strikingly apparent.

## CHAPTER 3

### METHODOLOGY

The purpose of this study was to confirm the factor structure of Wright's (1985) Prison Environment Inventory (PEI) instrument using secondary data and the methods of principal component analysis and confirmatory factor analysis. The secondary data contained surveys that measured inmate concerns of the prison environment across four prison security levels: minimum, medium, close, and maximum. It was hypothesized that the analyses of the secondary data will confirm Wright's PEI instrument and the eight dimensions of the prison environment for the individual security levels, combined medium and maximum security, and the total inmate sample. The principal component analysis revealed 12 components with safety emerging as the most salient aspect of the prison milieu. The confirmatory factor analysis revealed that each of the eight dimensions that comprise the PEI scale was supported.

#### Data

##### Population

The population used for this study comes from secondary data (Gillespie, 2003) and consists of 1,054 inmates, which were surveyed across 30 prisons from the states of Tennessee, Kentucky, and Ohio. The Kentucky Department of Correction allowed access into 11 men's state prisons. The research protocol was approved by Carol Williams, the research coordinator for the Kentucky Department of Correction. The Tennessee Department of Correction allowed access to 9 prisons. Of these 9 prisons, the Wayne County Boot Camp was excluded. The Tennessee Department of Correction allowed access to 9 prisons. The research protocol and study was approved by Jim Wilson, who obtained permission to conduct the study from the Commissioner of the Tennessee State Department of Correction. The Ohio Department of Correction and Rehabilitation allowed access to 11 prisons. Lee Norton, the research coordinator for the Ohio Department of Correction, approved the research protocol.

There were 11 prison sights for Kentucky. They were as follows: Bell Forestry Camp, Blackburn Correctional Complex, Eastern Kentucky Correctional Complex, Frankfort Career

Developmental Center, Green River Correctional Complex, Kentucky State Penitentiary, Kentucky State Reformatory, Luther Lockett Correctional Complex, Northpoint Training Center, Roeder Correctional Complex, and Western Kentucky Correctional Complex. There were 11 prison sights for Ohio. They were as follows: Chillicothe Correctional Institution, Dayton Correctional Institution, London Correctional Institution, Noble Correctional Institution, Madison Correctional Institution, Orient Correctional Institution, Pickaway Correctional Institution, Ross Correctional Institution, Southeastern Correctional Institution, Southern Correctional Institution, and Warren Correctional Institution. There were 8 prison sights for Tennessee. They were as follows: Middle Tennessee Correctional Complex, Morgan County Correctional Complex, Riverbend Maximum Security Institution, Northeast Correctional Complex, Northwest Correctional Complex, South Central Correctional Complex, Southeastern Tennessee State Regional Correctional Facility, and Turney Center Industrial Prison and Farm.

#### Sampling Method

The sampling method used for the Kentucky State Department of Correction used several steps and was facilitated by Williams, the research coordinator. After receiving approval for the research protocol and being granted access to the 11 facilities, Williams manufactured a list of inmates who had been incarcerated for at least 1 year. The available inmates per institution ranged between 33 and 2,000. These two figures served as the registers for the sampling frame. From these two registers, a process of systematic random sampling was used to draw 250 inmates per facility. In the event that there were fewer than 250 inmates on the register list, each inmate was requested for participation in the survey. Upon completion of obtaining the sampling frame for Kentucky, Williams established contacts at each of the facilities. The contacts at each facility set up the dates, times, and locations for the administration of the surveys. This ended the initial phase of the sampling procedure for Kentucky.

The beginning of the second phase began with letters for selected inmates that were sent to the facility contacts for delivery. The letters explained the nature of the study, the date and time, the correctional staff member who would oversee the survey administration, and that

participation in the study was completely voluntary. In addition, no reward that was deemed as coercive was offered for participation. Approximately 2,134 recruitment letters were sent out to inmates. Of those, 388 inmates participated in the study and completed the survey, thus making up the inmate sample for Kentucky.

Originally, nine prisons in Tennessee were requested for inclusion in the study. However, only eight prisons were used. Similar to Kentucky, the sampling method for Tennessee carried several steps and was facilitated by Jim Wilson. After receiving approval for the research protocol and for conducting the study, Wilson generated a list of inmates. Unlike the 1-year incarceration requisite for the Kentucky inmates, study participation for Tennessee inmates required only 6 months of incarceration. This decrease in the requisite time of incarceration created a larger sampling frame and this time frame was founded on the pretext that it would allow for more qualified inmates to take part in the study. The letters sent to the Tennessee inmates were identical to those for the Kentucky inmates. Approximately 2,848 recruitment letters were sent out to inmates. Of those, 300 inmates participated in the study and completed the survey, thus making up the inmate sample for Tennessee.

For the state of Ohio, 26 prisons were originally requested for inclusion in the study. Horton, the research coordinator, recommended that the number of prisons in the sample be reduced. As a result, access was granted to 11 prison facilities. The sampling procedure used in Ohio was facilitated by Horton and differed from Tennessee and Kentucky in that a manufactured list of inmates was not generated. Thus, systematic random sampling was not an option.

Correctional officials from the Ohio Department of Correction and Rehabilitation mandated that an additional pilot study be conducted at the Warren Correctional Complex upon completion of the study in Kentucky. It was during this study that a convenience sampling method was tested. Norton established contacts at each prison facility. However, the contacts did not administer the study participation letters to the inmates. Rather, the facilities used a sign-up sheet. The sign-up sheet contained the study information, the date and time, and the location

of where the survey would be administered. For inmates who wanted to participate in the study they were required to sign up in advance. Of the inmates who signed up, 366 inmates participated in the study and completed the survey, thus making up the inmate sample for Ohio.

### Response Rates

Response rates are a necessary and important feature of surveys. They allow for one to measure how many subjects completed the survey instrument to those who were asked to participate (Applied Research Northwest, 2005). As such, the accuracy of the results is dependent on the number who completed the surveys.

The sampling frames for Kentucky were comprised of 6 facilities with 250 letters sent, one facility with 225 letters sent, one facility with 210 letters sent, one facility with 102 letters sent, one facility with 64 letters sent, and one facility with 33 letters sent. The response rate for Kentucky had an overall low of 7.60% and an overall high of 84.85%. The lowest response rate was obtained from Luther Luckett Correctional Complex with 19 inmates completing the survey from 250 letters sent. The highest response rate was obtained from Bell County Forestry Camp with 28 inmates completing the survey from 33 letters sent.

The sampling frames for Tennessee were comprised of 6 facilities with 400 letters sent, one facility with 280 letters sent, and one facility with 168 letters sent. The response rates for Tennessee had an overall low of 6.50% and an overall high of 16.50%. The lowest response rate was obtained from Turney Center Industrial Prison and Farm with 26 inmates completing the survey from 400 letters sent. The highest response rate was obtained from Morgan County Correctional Complex with 66 inmates completing the survey from 400 letters sent.

The survey participants for Ohio came from 11 facilities. However, due to survey participation letters being disallowed, there was no sampling frame. As such, this eliminates a response rate from being determined. The subjects per facility ranged from a high of 50 from the Ross Correctional Facility to a low of 10 from the Dayton Correctional Facility. In total, 366 inmates participated in and completed the survey.

### Variables

The variables used for analysis were Wright's (1985) Prison Environment Inventory and four security levels of the prison. The independent variables for this study were the four security levels of the prison. These four security levels made up the prison level variable. The prison environment inventory instrument question made up the inmate level variable.

### Independent

There were six independent variables used in this study. Four of these variables were the individual prison security levels of minimum, medium, close, and maximum. The remaining two variables were a combination of all four security levels and a combination of medium and maximum security. Of these four security levels, 6 were minimum security, 15 were medium security, 5 were close security, and 4 were maximum security for a total of 30 prisons.

### Dependent

The dependent variable used in this study was Wright's (1985) 48-item PEI instrument. The PEI instrument consists of 48 items, each of which pertains to one of Toch's (1977) eight environmental dimensions. The PEI instrument was used to determine whether or not Toch's dimensions were independent of each other. The PEI instrument was administered to inmates as a survey. Each item in the survey had a response category of never, seldom, often, or always. The environmental dimensions of activity, support, social, safety, privacy, and freedom were measured using six items. The environmental dimension of emotional feedback was measured using seven items. The environmental dimension of structure was measured using five items.

To determine the reliability of the PEI instrument, Wright (1985) used item-to-instrument correlations. These correlations measured each item of the instrument and determined which of the items did not correlate to the environmental dimension they were supposed to measure. After the initial correlations, Wright used exploratory factor analysis to determine if the items of the PEI instrument formed eight independent dimensions and to determine their independence. The results of the exploratory factor analysis verified his conceptual hypothesis and showed that each environmental dimension was in fact independent. The 48 items of the instrument that measured

each dimension will be provided as they appear on the PEI instrument along with their corresponding number.

The items that measure inmate concern on the dimension of activity are as follows: 3) These is at least one movie each week?, 18) An inmate obtains training if he wants?, 27) Inmates have something to do every night?, 31) Each inmate can lift weights at least 1 hour each day?, 34) Inmates keep busy by participating in sports?, and 43) Inmates keep busy with their hobbies.

The items that measure inmate concern on the dimension of support are as follows: 9) If an inmate tries a new hobby or art, the guards will encourage him?, 17) Prison officials help inmates with problems?, 26) A person learns new skills here?, 32) Inmates know what will get them written up by the guards?, 42) Prison programs teach inmates new skills?, and 45) Prison programs help inmates make parole?

The items that measure inmate concern on the dimension of social are as follows: 5) Inmates spend several hours each day talking with friends?, 8) Inmate are with their friends at night?, 11) Inmates are with more than three friends at a time?, 14) Inmates feel free to go up and talk to other inmates even if they are strangers, 22) Inmates see their close inmate friends when they want to?, and 30) Inmates rap with guards?

The items that measure inmate concern on the dimension of safety are as follows: 4) An inmate is sexually attacked on this unit? 6) Inmates fight with other inmates?, 12) Someone's cell is robbed on this unit?, 19) Weaker inmates are sexually attacked?, 23) A weaker inmate is physically attacked?, and 35) An inmate's cell is robbed?

The items that measure inmate concern on the dimension of privacy are as follows: 13) The unit is quiet?, 15) Inmates stay in their cells if they want?, 20) Inmates read without being disturbed?, 24) Inmates can be alone without being disturbed?, 36) If an inmate lets other people know he does not want to be bothered, they will not bother him, and 47) Inmates have at least 1-hour of uninterrupted time to themselves each night.

The items that measure inmate concern on the dimension of freedom are as follows: 16) Inmates receive visitors any time during the day?, 25) Inmates do not have to work if they do not

want to?, 28) Inmates lift weights when they want to?, 39) Inmates are allowed to read when they want?, 46) Inmates stay up as late as they want?, and 48) Inmates listen to music when they want.

The items that measure inmate concern on the dimension of emotional feedback are as follows: 2) The guards tell inmates when they do well?, 7) The guards ask inmates about their personal feelings?, 21) Inmates care about each other?, 29) Guards tease depressed inmates?, 33) Inmates talk to one another about their feelings?, 38) Inmates let their friends know they care about them?, and 41) Inmates who do favors for their friends are liked?

The items that measure inmate concern on the dimension of structure are as follows: 1) Inmates know what will happen if they violate the rules?, 10) Inmates know the rules?, 37) Inmates know when the gym is open?, 40) Inmates know when they can take a shower?, and 44) Inmates know when the commissary is open?

### Analyses

The primary goal of this study is to replicate the findings from Wright's (1985) study using his Prison Environment Inventory scale that found eight independent dimensions as put forth by Toch (1977). Principal component analysis and confirmatory factor analysis were used to determine which dimensions are present among the prison samples. After confirming which dimensions were found to exist, this study will then determine which dimensions are of primary concern for inmates based on the eigenvalue of the extracted components from the principal component analysis and the standardized regression weights of the structural equation modeling from the confirmatory factor analysis. After finding which dimensions are of concern among inmates, a determination can be made as to whether or not Wright's (1985) Prison Environment Inventory scale is a reliable measure of the prison environment.

### Summary

This study was an examination of an instrument that was designed to assess inmate perceptions of the prison environment. This instrument was designed to assess the reliability of the eight environmental dimensions-support, social, structure, safety, emotional feedback,

freedom, activities, privacy-to accurately describe the prison climate. These eight dimensions are seen as being shared by inmates across different correctional institutions. This examination was applied to the theory of symbolic interactionism on the grounds of interaction and reaction that arises between the personal and social dimensions of the prison environment while struggling to maintain an identity.

## CHAPTER 4

### RESULTS

The purpose of the analytical strategy used for this study was to replicate the findings from Wright's (1985) study that found eight independent environmental dimensions (Toch, 1977) within the prison security levels of medium and maximum. To determine if these dimensions existed, Wright used a 48-item scale, in the form of a survey, to determine inmate concerns of the prison environment. His survey was administered to 900 inmates drawn from 5 medium and 5 maximum security prisons. The current study used a sample of 1,054 inmates drawn from 30 minimum (N=7), medium (N=13), maximum (N=4), and close (N=6) security prisons.

This study used two methods of factor analysis: Principal Component analysis and confirmatory factor analysis using structural equation modeling. Using SPSS 13.0 and the method of Principal Component analysis, this will allow for a confirmatory analysis of Wright's (1985) prison environmental scale. The purpose of Principal Component analysis is to make clear the patterns among variables. This pattern allows for a structure to emerge in the relationship between the variables that are correlated, thereby reducing the overall number of variables. As such, this process allows for the variables to be categorized (StatSoft, 2003). The variables that share a high correlation are then extracted. Extraction of factor proceeds by extracting factors with eigenvalues greater than 1. This level represents the amount of variance that is accounted for by a factor (Knouse, 2002). The factors were then obliquely rotated. This "provides [for] a clearer factor solution" (Ellwanger, 2005) of the components that are extracted. This method determined which dimensions existed across the four security levels, the total inmate sample, and the combined sample of medium and maximum, based on the factor loadings of the dependent variables.

The factor structure was analyzed across six populations. Test one concerned the entire inmate sample across all four prison security levels. Test two concerned the inmate subjects from both *medium* and *maximum* security prisons. Test three included the inmate subjects, who

came from *minimum* security prisons. Test four included the inmate subjects who came from medium security prisons. Test five included the inmate subjects who came from maximum security prisons. Test six included the inmate subjects who came from close security prisons. It is important that the test including medium and maximum security prisons was included due to Wright (1985) administering the 48 item scale to only medium and maximum security prisons. As a result of using Principal Component analysis, scree plots were generated for each test. The scree plots/graphs show the position of the 48 components for each test that were extracted. The scree plots/graphs then enable the investigator to determine which extracted components are of value based on where they fall in relation to the eigenvalues. Usually, the components of value are determined based on the factorial scree, or where they begin to collect (Statsoft, 2006). As such, the scree plot is useful for determining which extracted components, or factors, are meaningful to the analysis.

Confirmatory factor analysis enables for a determination to be made whether or not a specified “number of factors and the loadings of measured variables” (Garson, 2006) apply to an expected hypothesis. The measured variables are chosen by prior knowledge and factor analysis determines if those variables load as was predicted on the specified number of factors (Garson). This method of factor analysis can cement the validity of a factor model, such as Wright’s (1985) Prison Environment Inventory scale (DeCoster, 1998). Within the process of using confirmatory factor analysis, the technique of structural equation modeling (SEM) was used to validate Wright’s factor model. SEM is a tool that can be used to assess latent constructs, which Rigdon (n.d.) reports as being abstract psychological variables which are not directly observable. The inmate concerns, which are assessed using the PEI scale (Wright, 1985), serve as the latent constructs.

#### Scale Item Distribution of Wright’s (1985) 48-Item PEI scale

The results discussed in this section come from a scale item distribution analysis of the 48 items (see Table 1). The response categories per question were coded such that 0 = Never, 1 = Seldom, 2 = Often, and 3 = Always. The factor loadings for all 48 items of the PEI scale

(Wright, 1985) are presented with their corresponding environmental dimension, mean, and standard deviation (STD).

Table 1

<i>Prison Environment Inventory Scale</i>	<i>High Score Per Item</i>	
<u>Dimension</u>	<u>Mean</u>	<u>STD</u>
<i>Activity</i>		
3) There is at least one movie per week	1.62	1.37
18) An inmate obtains training if he wants	2.00	.90
27) Inmates have something to do every night	1.34	.89
31) Each inmate can lift weights at least 1 hour each day	1.69	1.23
34) Inmates keep busy by participating in sports	2.06	.71
43) Inmates keep busy with their hobbies	1.88	.78
<u>Dimension</u>	<u>Mean</u>	<u>STD</u>
<i>Emotional Feedback</i>		
2) The guards tell inmates what they do well	.75	.85
7) The guards ask inmates about their personal feelings	.46	.70
21) Inmates care about one another	1.17	.74
29) Guards tease depressed inmates	1.86	.96
33) Inmates talk to one another about their feelings	1.49	.80
38) Inmates let their friends know they care about them	1.43	.81
41) Inmates who do favors for their friends are liked	2.07	.77
<u>Dimension</u>	<u>Mean</u>	<u>STD</u>
<i>Freedom</i>		
16) Inmates receive visitors any time during the day	.72	1.00
25) Inmates do not have to work if they do want to	.70	1.00
28) Inmates lift weights when they want to	1.30	1.02
39) Inmates are allowed to read when they want	2.39	.78
46) Inmates stay up as late as they want	2.08	1.12
48) Inmates listen to music when they want	2.38	.75

Table 1 (continued)

<i>Prison Environment Inventory Scale</i>	<i>High Score Per Item</i>	
<u>Dimension</u>	<u>Mean</u>	<u>STD</u>
<i>Privacy</i>		
13) This unit is quiet	1.12	.86
15) Inmates stay in their cells if they want	2.07	.97
20) Inmates read without being disturbed	1.24	.81
24) Inmates can be alone without being disturbed	1.06	.88
36) If an inmate lets other people know he does not want to be bothered, they will not bother him	1.70	.79
47) Inmates have at least 1 hour of uninterrupted time to themselves each night	1.32	1.13
<u>Dimension</u>	<u>Mean</u>	<u>STD</u>
<i>Safety</i>		
4) An inmate is sexually attacked on this unit	.44	.64
6) Inmates fight with other inmates	1.46	.83
12) Someone's cell is robbed	.96	.72
19) Weaker inmates are sexually attacked	.98	.85
23) A weaker inmates is physically attacked	1.18	.80
35) An inmate's cell is robbed	1.03	.72
<u>Dimension</u>	<u>Mean</u>	<u>STD</u>
<i>Social</i>		
5) Inmates spend several hours each day talking with friends	2.39	.78
8) Inmates are with their friends at night	1.38	.97
11) Inmates are with more than three friends at a time	1.73	.66
14) Inmates feel free to go up and talk to other inmates even if they are strangers	1.50	.85
22) Inmates see their close friends when they want to	1.77	.78
30) Inmates rap with guards	1.74	.86

Table 1 (continued)

<i>Prison Environment Inventory Scale</i>	<i>High Score Per Item</i>	
Dimension	Mean	STD
<b>Structure</b>		
1) Inmates know what will happen if they violate the rules	2.43	.78
10) Inmates know the rules	2.41	.71
37) Inmates know when the gym is open	2.39	.82
40) Inmates know when they can take a shower	2.67	.63
44) Inmates know when the commissary is open	2.64	.64
Dimension	Mean	STD
<b>Support</b>		
9) If an inmate tries a new hobby or art, the guards will encourage him	.51	.71
17) Prison officials helps inmates with problems	.88	.79
26) A person learns new skills here	1.53	.86
32) Inmates know what will get them written up by the guards	2.37	.76
42) Prison programs teach inmates new skills	1.80	.88
45) Prison programs help inmates make parole	1.20	.89

The dimension of activity contained 6 scale items: 3) “There is at least one movie each week” had a mean of 1.62 and a standard deviation of 1.37. 18) “An inmate obtains training” had a mean of 2.00 and a standard deviation of .90. 27) “Inmates have something to do every night” had a mean of 1.34 and a standard deviation of .89. 31) “Each inmate can lift weights at least 1 hour per day” had a mean of 1.69 and a standard deviation of 1.23. 34) “Inmates keep busy by participating in sports” had a mean of 2.0 and a standard deviation of .716. 43) “Inmates keep busy with their hobbies” had a mean of 1.88 and a standard deviation of .78.

The dimension of emotional feedback contained 7 scale items: 2) “The guards tell inmates what they do well” had a mean of .75 and a standard deviation of .85. 7) “The guards ask inmates about their personal feelings” had a mean of .46 and a standard deviation of .70. 21) “Inmates care about one another” had a mean of 1.17 and a standard deviation of .74. 29)

“Guards tease depressed inmates” (recoded) had a mean of 1.86 and a standard deviation of .96. 33) “Inmates talk to one another about their feelings” had a mean of 1.49 and a standard deviation of .80. 38) “Inmates let their friends know they care about them” had a mean of 1.43 and a standard deviation of .81. 41) “Inmates who do favors for their friends are liked” had a mean of 2.07 and a standard deviation of .77.

The dimension of freedom contained 6 scales: 16) “Inmates receive visitors anytime during the day” had a mean of .72 and a standard deviation of 1.00. 25) “Inmates do not have to work if they do not want to” had a mean of .70 and a standard deviation of 1.00. 28) “Inmates lift weights when they want to” had a mean of 1.30 and a standard deviation of 1.02. 39) “Inmates are allowed to read when they want” had a mean of 2.39 and a standard deviation of .78. 46) “Inmates stay up as late as they want” had a mean of 2.08 and a standard deviation of 1.12. 48) “Inmates listen to music when they want” had a mean of 2.38 and a standard deviation of .75.

The dimension of privacy contained 6 scale items: 13) “The unit is quiet” had a mean of 1.12 and a standard deviation of .86. 15) “Inmates stay in their cells if they want” had a mean of 2.07 and a standard deviation of .97. 20) “Inmates read without being disturbed” had a mean of 1.24 and a standard deviation of .81. 24) “Inmates can be alone without being disturbed” had a mean of 1.06 and a standard deviation of .88. 36) “If an inmate lets other people know he does not want to be bothered, they will not bother him” had a mean of 1.70 and a standard deviation of .79. 47) “Inmates have at least 1 hour of uninterrupted time to themselves each night” had a standard deviation of 1.13 and a mean of 1.32.

The dimension of safety contained 6 scale items: 4) “An inmate is sexually attacked on the unit” had a mean of .44 and a standard deviation of .64. 6) “Inmates fight with other inmates” had a mean of 1.46 and a standard deviation of .83. 12) “Someone’s cell is robbed on this unit” had a mean of .96 and a standard deviation of .72. 19) “Weaker inmates are sexually attacked” had a mean of .98 and a standard deviation of .85. 23) “A weaker inmate is physically

attacked” had a mean of 1.18 and a standard deviation of .80. 35) “An inmate’s cell is robbed” had a mean of 1.03 and a standard deviation of .72.

The dimension of social contained 6 scale items: 5) “Inmates spend several hours each day talking with friends” had a mean of 2.39 and a standard deviation of .78. 8) “Inmates are with their friends at night” had a mean of 1.38 and a standard deviation of .97. 11) “Inmates are with more than three friends at a time” had a mean of 1.73 and a standard deviation of .66. 14) “Inmates feel free to go up and talk to other inmates even if they are strangers” had a mean of 1.50 and a standard deviation of .85. 22) “Inmates see their close inmate friends when they want to” had a mean of 1.77 and a standard deviation of .78. 30) “Inmates rap with guards” had a mean of 1.74 and a standard deviation of .86.

The dimension of structure contained 5 scale items: 1) “Inmates know what will happen if they violate the rules” had a mean of 2.4 and a standard deviation .783. 10) “Inmates know the rules” had a mean of 2.41 and a standard deviation of .71. 37) “Inmates know when the gym is open” had a mean of 2.39 and a standard deviation of .82. 40) “Inmates know when they can take a shower” had a mean of 2.67 and a standard deviation of .63. 44) “Inmates know when the commissary is open” had a mean of 2.64 and a standard deviation of .64.

The dimension of support contained 6 scale items: 9) “If an inmate tries a new hobby or art, guards will encourage him” had a mean of .51 and a standard deviation of .71. 17) “Prison officials help inmates with problems” had a mean of .88 and a standard deviation of .79. 26) “A person learns new skills here” had a mean of 1.53 and a standard deviation of .86. 32) “Inmates know what will get them written up by a guard” had a mean of 2.37 and a standard deviation of .76. 42) “Prison programs teach inmates new skills” had a mean of 1.80 and a standard deviation of .88. 45) “Prison programs help inmates make parole” had a mean of 1.20 and a standard deviation of .89.

### Principal Component Analysis

In an attempt to confirm Wright’s (1985) proposed factor structure, each of the 6 proposed prison samples was subjected to Principal Component analysis (PCA) (see Table 2).

The number at which the components were extracted to determine if the measured the eight dimensions of Wright’s Prison Environment Inventory scale ceased at the eighth component. As such, the Principal Component analysis for all four security level samples extracted 12 components with eigenvalues greater than 1. These 12 components accounted for 54% of the cumulative variance in the unrotated solution. From these 12 components, eight of them accounted for 45% of the cumulative variance in the unrotated solution.

Table 2

*Summary of Factor Analysis for Variables Predicting Environmental Prison Dimensions*

Factorial		Loadings		and		Comparisons	
Total Prison Security Sample				Wright’s Analysis-Medium and Maximum Security			
Factors	EigenValue	Factors	EigenValue	Factors	EigenValue	Factors	EigenValue
1-Safety	7.13	1-Safety	9.06				
2-Mixed	3.80	2-Structure	5.20				
3-Mixed	2.86	3-Support	2.90				
4-Privacy	1.98	4-Social	2.21				
5-Emotional Feedback	1.81	5-Privacy	2.13				
6-Mixed	1.60	6-Freedom	1.61				
7-Mixed	1.37	7-Activity	1.38				
8-Mixed	1.32	8-Emotional Feedback	1.21				
Medium and Maximum Security Level				Wright’s Analysis-Medium and Maximum Security			
Factors	EigenValue	Factors	EigenValue	Factors	EigenValue	Factors	EigenValue
1-Mixed	7.70	1-Safety	9.06				
2-Safety	3.98	2-Structure	5.20				
3-Mixed	2.83	3-Support	2.90				
4-Emotional Feedback	2.11	4-Social	2.21				
5-Privacy	1.73	5-Privacy	2.13				
6-Mixed	1.45	6-Freedom	1.61				
7-Mixed	1.41	7-Activity	1.38				
8-Social	1.38	8-Emotional Feedback	1.21				

Table 2 (continued)

*Summary of Factor Analysis for Variables Predicting Environmental Prison Dimensions*

Minimum Security Level		Wright's Analysis-Medium and Maximum Security	
<u>Factors</u>	<u>EigenValue</u>	<u>Factors</u>	<u>EigenValue</u>
1-Safety	7.17	1-Safety	9.06
2-Mixed	3.50	2-Structure	5.20
3-Privacy	2.87	3-Support	2.90
4-Mixed	2.23	4-Social	2.21
5-Mixed	2.06	5-Privacy	2.13
6-Mixed	1.85	6-Freedom	1.61
7-Emotional Feedback	1.60	7-Activity	1.38
8-Mixed	1.06	8-Emotional Feedback	1.21

  

Medium Security Level		Wright's Analysis-Medium and Maximum Security	
<u>Factors</u>	<u>EigenValue</u>	<u>Factors</u>	<u>EigenValue</u>
1-Safety	6.68	1-Safety	9.06
2-Mixed	4.03	2-Structure	5.20
3-Mixed	2.83	3-Support	2.90
4-Privacy	2.33	4-Social	2.21
5-Emotional Feedback	1.86	5-Privacy	2.13
6-Mixed	1.66	6-Freedom	1.61
7-Mixed	1.51	7-Activity	1.38
8-Social	1.46	8-Emotional Feedback	1.21

  

Maximum Security Level		Wright's Analysis-Medium and Maximum Security	
<u>Factors</u>	<u>EigenValue</u>	<u>Factors</u>	<u>EigenValue</u>
1-Mixed	9.75	1-Safety	9.06
2-Safety	3.86	2-Structure	5.20
3-Mixed	3.29	3-Support	2.90
4-Privacy	1.90	4-Social	2.21
5-Mixed	1.85	5-Privacy	2.13
6-Mixed	1.77	6-Freedom	1.61
7-Mixed	1.47	7-Activity	1.38
8-No Load		8-Emotional Feedback	1.21

Table 2 (continued)

*Summary of Factor Analysis for Variables Predicting Environmental Prison Dimensions*

Close Security		Wright's Analysis-Medium and Maximum Security	
Factors	EigenValue	Factors	EigenValue
1-Mixed	6.00	1-Safety	9.06
2-Safety	4.68	2-Structure	5.20
3-Mixed	3.37	3-Support	2.90
4-Emotional Feedback	2.82	4-Social	2.21
5-Mixed	2.05	5-Privacy	2.13
6-Freedom	1.88	6-Freedom	1.61
7-Support	1.71	7-Activity	1.38
8-No Load		8-Emotional Feedback	1.21

Total Inmate Prison Security Sample

Factor 1 had six items with a factor loading greater than the priori .5, which accounts for 25% of the variance. All six of these items were related to Wright's (1985) dimension of *safety*. "A weaker inmate is physically attacked" had a factor loading of .804. "An inmate's cell is robbed" had a factor loading of .763. "Weaker inmates are sexually attacked" had a factor loading of .762. "Someone's cell is robbed on this unit" had a factor loading of .691. "An inmate is sexually attacked on the unit" had a factor loading of .668. "Inmates fight with other inmates" had a factor loading of .645.

Factor 2 had five salients greater than .5. Three of these salients were related to Wright's (1985) dimension of *structure* with the other two to *freedom*. As such, this factor was categorized as a *mixed* dimension. "Inmates know when they can take a shower" had a factor loading of .783. "Inmates know when the commissary is open" had a factor loading of .774. "Inmates listen to music when they want" had a factor loading of .592. "Inmates are allowed to read when they want to" had a factor loading of .588. "Inmates know when the gym is open" had a factor loading of .504.

Factor 3 had three items with a factor loading greater than the priori .5. Two of the items were related to Wright's dimension of *support* and the other to *activity*. As such, this factor was also categorized as a *mixed* dimension. "A person learns new skills in here" had a factor loading of .896. "Prison programs teach inmates new skills" had a factor loading of .790. "An inmate obtains training if he wants" had a factor loading of .738.

Factor 4 was comprised of three salients greater than .5. All three of the salients were related to Wright's (1985) dimension of *privacy*. "Inmates read without being disturbed" had a factor loading of .806. "This unit is quiet" had a factor loading of .705. "Inmates can be alone without being disturbed" had a factor loading of .683.

Factor 5 had three items with a factor loading greater than the priori .5. All three of the items were related to Wright's (1985) dimension of *emotional feedback*. "Inmates talk to one another about their feelings" had a factor loading of .750. "Inmates let their friends know they care about them" had a factor loading of .686. "Inmates care about one another" had a factor loading of .578.

Factor 6 had three items with a factor loading greater than the priori .5. Two of the items were related to Wright's (1985) dimension of *emotional feedback* and the other to *support*. Thus, this factor was categorized as a *mixed* dimension. "The guards ask inmates about their personal feelings" had a factor loading of .796. "The guards tell inmates what they do well" had a factor loading of .738. "If an inmate tries a new hobby or art, the guards will encourage him" had a factor loading of .676.

Factor 7 had two salients greater than .5. These two salients were related to Wright's (1985) dimensions of *activity* and *freedom*. Due to these results, this factor was categorized as a *mixed* dimension. "Each inmate can lift weighs at least 1 hour per day" had a factor loading of .857. "Inmates lift weights when they want to" had a factor loading of .803.

Factor 8 also had three salients greater than .5. Two of the salients were related to Wright's (1985) dimension of structure of and the other to *support*. As such, this factor was categorized as a *mixed* dimension. "Inmates know the rules" had a factor loading of .782.

“Inmates know what will happen if they violate the rules” had a factor loading of .750. “Inmates know what will get them written up by a guard” had a factor loading of .620.

Based on these results, it would indicate that Wright’s (1985) study was not supported. Of the eight dimensions, this sample supported three. These dimensions were related to Wright’s dimensions of *safety*, *privacy*, and *emotional feedback*. The dimensions of *activity*, *freedom*, *social*, *structure*, and *support* did not load for this sample.

### Medium and Maximum Security

The Principal Component analysis of the medium and maximum security levels used in his study extracted 12 components with eigenvalues greater than 1. These 12 components accounted for 56% of the cumulative variance in the unrotated solution. From these 12 components, eight of them accounted for 47% of the cumulative variance in the unrotated solution.

Factor 1 had 3 salients greater than .5. Two of the salients were related to Wright’s (1985) dimension of *structure* and the other to *freedom*. As such, this factor was categorized as a *mixed* dimension. “Inmates know when the commissary is open” had a factor loading of .817. “Inmates know when they can take a shower” had a factor loading of .802. “Inmates are allowed to read when they want” had a factor loading of .697. “Inmates listen to music when they want” had a factor loading of .626.

Factor 2 had six items with a factor loading greater than the priori .5. All six of the items were related to Wright’s (1985) dimension of *safety*. “A weaker inmate is physically attacked” had a factor loading of .816. “Weaker inmates are sexually attacked” had a factor loading of .792. “An inmate’s cell is robbed” had a factor loading of .728. “An inmate is sexually attacked on the unit” had a factor loading of .689. “Inmates with other inmates” had a factor loading of .684. “Someone’s cell is robbed on this unit” had a factor loading of .659.

Factor 3 had four items with a factor loading greater than the priori .5. All four of the items were related to Wright’s (1985) dimension of *support*. “A person learns new skills in here” had factor loading of .770. “Prison programs teach inmates new skills” had a factor

loading of .744. “Prison programs help inmates make parole” had a factor loading of .624. “An inmate obtains training if he wants” had a factor loading of .551.

Factor 4 had three salients greater than .5. All three of the items were related to Wright’s (1985) dimension of *emotional feedback*. “Inmates care about one another” had a factor loading of .762. “Inmates talk to one another about their feelings” had a factor loading of .761. “Inmates let their friends know they care about them” had a factor loading of .682.

Factor 5 also had three salients greater than .5. All three of the salients were related to Wright’s (1985) dimension of *privacy*. “Inmates read without being disturbed” had a factor loading of .750. “Inmates can be alone without being disturbed” had a factor loading of .745. “If an inmate lets other people know he does not want to be bothered, they will not bother him” had a factor loading of .578.

Factor 6 had three items with a factor loading greater than the priori .5. Two of the items were related to Wright’s (1985) dimension of *emotional feedback* and the other to *support*. Due to these results, this factor was categorized as a *mixed* dimension. “The guards ask inmates about their personal feelings” had a factor loading of .753. “The guards tell inmates what they do well” had a factor loading of .683. “If an inmate tries a new hobby or art, the guards will encourage him” had a factor loading of .671.

Factor 7 had three items with a factor loading greater than the priori .5. Two of the items were related to Wright’s (1985) dimension of *freedom* and the other to *activity*. As such, this factor was categorized as a *mixed* dimension. “Inmates lift weights when they want to” had a factor loading of .798. “Each inmate can lift weights at least 1 hour each day” had a factor loading of .770. “Inmates do not have to work if they do not want to” had a factor loading of .578.

Factor 8 had three salients greater than .5. All three of the salients were related to Wright’s (1985) dimension of *social*. “Inmates are with their friends at night” had a factor loading of .864. “Inmates spend several hours each day talking with their friends” had a factor

loading of .623. “Inmates see their close inmate friends when they want to” had a factor loading of .576.

Based on these results, Wright’s (1985) study was not supported. Of the eight dimensions, this sample confirmed four. These were related to Wright’s dimensions of *safety*, *privacy*, *social*, and *emotional feedback*. The dimensions of *activity*, *freedom*, *structure*, and *support* did not load for this sample.

### Minimum Security

The Principal Component analysis for the minimum security sample extracted 15 components with eigenvalues greater than 1. These 15 components accounted for 66% of the cumulative variance in the unrotated solution. From these 15 components, 8 of them accounted for 47% of the cumulative variance in the unrotated solution.

Factor 1 had four items with a factor loading greater than the priori .5. These four items were related to Wright’s (1985) dimension of *safety*. “A weaker inmate is physically attacked” had a factor loading of .853. “An inmate’s cell is robbed” had a factor loading of .728. “Inmates fight with other inmates” had a factor loading of .709. “Weaker inmates are sexually attacked” had a factor loading of .706.

Factor 2 had four items with a factor loading greater than the priori .5. Three of the items were related to Wright’s (1985) dimension of *support* and the other with *activity*. As such, this factor was categorized as a *mixed* dimension. “A person learns new skills in here” had a factor loading of .878. “Prison programs teach inmates new skills” had a factor loading of .844. “An inmate obtains training if he wants” scored a variance of .798. “Prison programs help inmates make parole” had a factor loading of .603.

Factor 3 had four salients greater than .5. All four of the salients were related to Wright’s (1985) dimension of *privacy*. “The unit is quiet” had a factor loading of .790. “Inmates can be alone without being disturbed” had a factor loading of .790. “Inmates have at least one hour of uninterrupted time to themselves each night” had a factor loading of .655. “Inmates read without being disturbed” had a factor loading of .567.

Factor 4 had three salients of .5. Two of the salients were related to Wright's dimension of *structure* and the other to *support*. As such, this factor was categorized as a *mixed* dimension. "Inmates know what will happen if they violate the rules" had a factor loading of .839. "Inmates know what will get them written up by a guard" had a factor loading of .765. "Inmates know the rules" had a factor loading of .742.

Factor 5 also had three items with a factor loading greater than the priori .5. Each of the items was associated to Wright's (1985) dimensions of *structure*, *freedom*, and *emotional feedback*. Due to these results, this component was categorized as a *mixed* dimension. "Inmates know when the commissary is open" had a factor loading of .870. "Inmates listen to music when they want" had a factor loading of .631. "Inmates who do favors for their friends are liked" had a factor loading of .573.

Factor 6 had three items with a factor loading greater than the priori .5. Two of the items were related to Wright's dimension of *emotional feedback* and the other to *support*. This component was categorized as a *mixed* dimension. "The guards ask inmates about their personal feelings" had a factor loading of .813. "If an inmate tries a new hobby or art, the guards encourage him" had a factor loading of .745. "The guards tell inmates what they do well" had a factor loading of .647.

Factor 7 had two salients greater than .5. These two salients were related to Wright's (1985) dimension of *emotional feedback*. "Inmates talk to one another about their feelings" had a factor loading of .723. "Inmates let their friends know they care about them" had a factor loading of .688.

Factor 8 had two items with factor loadings greater than the priori .5. These two items were related to Wright's (1985) dimensions of *activity* and *structure*. As such, this factor was categorized as a *mixed* dimension. "Inmates keep busy by participating in sports" had a factor loading of .947. "Inmates know when the gym is open" had a factor loading of .655.

Based on these results, they would indicate that Wright's (1985) study was partially supported. Of the eight dimensions, three were supported for this sample. These were related to

Wright's dimensions of *safety*, *privacy*, and *emotional feedback*. The dimensions of *activity*, *freedom*, *social*, *structure*, and *support* did not load for this sample.

### Medium Security

The Principal Component analysis for the medium security prison sample extracted 14 components with eigenvalues greater than 1. These 14 components accounted for 61% of the cumulative variance in the unrotated solution. From these 14 components, 8 of them accounted for 47% of the cumulative variance in the unrotated solution.

Factor 1 had six items with a factor loading greater than the priori .5. All six of the items were related to Wright's (1985) dimension of *safety*. "Weaker inmates are sexually attacked" had a factor loading of .828. "A weaker inmate is physically attacked" had a frequency loading of .814. "An inmate is sexually attacked on the unit" had a frequency loading of .713. "An inmate's cell is robbed" had a factor loading of .684. "Inmates fight with other inmates" had a factor loading of .679. "Someone's cell is robbed on this unit" had a factor loading of .646.

Factor 2 had four items with a factor loading greater than the priori .5. Two of these items were related to Wright's (1985) dimension of *structure* and the other two to *freedom*. Due to these results, this factor was categorized as a *mixed* dimension. "Inmates know when the commissary is open" had a factor loading of .887. "Inmates know when they can take a shower" had a factor loading of .855. "Inmates are allowed to read when they want" had a factor loading of .632. "Inmates listen to music when they want" had a factor loading of .570.

Factor 3 had three salients greater than .5. Two of the salients were related to Wright's (1985) dimension of *support* and the other to *activity*. Due to these results, this factor was categorized as a *mixed* dimension. "A person learns new skills in here" had a factor loading of .927. "An inmate obtains training if he wants" had a factor loading of .793. "Prison programs teach inmates new skills" had a factor loading of .773.

Factor 4 had four salients greater than .5. All four of the salients were related to Wright's (1985) dimension of *privacy*. "Inmates can be alone without being disturbed" had a factor loading of .839. "Inmates read without being disturbed" had a factor loading of .780. "Inmates

have at least one hour of uninterrupted time to themselves each night” had a factor loading of .611. “If an inmate lets other people know he does not want to be bothered, they will not bother him” had a factor loading of .535.

Factor 5 had three items with a factor loading greater than the priori .5. All three of the items were related to Wright’s (1985) dimension of *emotional feedback*. “Inmates care about one another” had a factor loading of .821. “Inmates let their friends know they care about them” had a factor loading of .786. “Inmates talk to one another about their feelings” had a factor loading of .759.

Factor 6 had three salients greater than .5. Two of the salients were related to Wright’s (1985) dimension of *emotional feedback* and the other to *support*. Due to these results, this factor was categorized as a mixed dimension. “The guards ask inmates about their personal feelings” had a factor loading of .789. “The guards tell inmates what they do well” had a factor loading of .766. “If an inmate tries a new hobby or art, the guards will encourage him” had a factor loading of .718. (Due to the fifth component loading on the dimension of emotional feedback, this component is not included as an independent dimension.)

Factor 7 had three items with a factor loading greater than a priori of .5. Two of the items were related to Wright’s (1985) dimension of *structure* and the other to *support*. As such, this factor was categorized under the dimension of structure. “Prison officials help inmates with their problems” had a factor loading of .789. “Inmates know what will happen if they violate the rules” had a factor loading of .758. “Inmates know what will get them written up by a guard” had a factor loading of .610.

Factor 8 had three salients greater than .5. All three of salients were related to Wright’s (1985) dimension of *social*. “Inmates spend several hours each day talking with friends” had a factor loading of .827. “Inmates with their friends at night” had a factor loading of .765. “Inmates are with more than three friends at a time” had a factor loading of .671.

Based on these results, Wright’s (1985) study was partially supported. Of the eight dimensions, four were supported for this sample. These four were related to Wright’s

dimensions of *safety, privacy, emotional feedback, and social*. The dimensions of *activity, freedom, structure, and support* did not load for this sample.

### Maximum Security

The Principal Component analysis for the maximum security prison sample extracted 13 components with eigenvalues greater than 1. These 13 components accounted for 64% of the cumulative variance in the unrotated solution. From these 13 components, 8 of them accounted for 52% of the cumulative variance of the unrotated solution.

Factor 1 had eight items with a factor loading greater than the priori .5. Four of the items were related to Wright's (1985) dimension of *structure* with each of the remaining items to the dimensions of *freedom, activity, emotional feedback, and support*. As such, this factor was categorized as a *mixed* dimension. "Inmates know when the commissary is open" had a factor loading of .907. "Inmates know when they can take a shower" had a factor loading of .869. "Inmates are allowed to read when they want" had a factor loading of .792. "Inmates keep busy by participating in sports" had a factor loading of .739. "Inmates keep busy with their hobbies" had a factor loading of .706. "Inmates who do favors for their friends are liked" had a factor loading of .606. "Inmates know what will get them written up by a guard" had a factor loading of .577.

Factor 2 had six salients greater than .5. All six of the salients were related to Wright's (1985) dimension of *safety*. "An inmate's cell is robbed" had a factor loading of .824. "Someone's cell is robbed on this unit" had a factor loading of .749. "A weaker inmate is physically attacked" had a factor loading of .726. "Weaker inmates are sexually attacked" had a factor loading of .677. "Inmate's fight with other inmates" had a factor loading of .676. "An inmate is sexually attacked on the unit" had a factor loading of .617.

Factor 3 had four items with a factor loading greater than the priori .5. Three of the items were related to Wright's (1985) dimension of *social* and the other *emotional feedback*. Due to these results, that this factor was categorized as a *mixed* dimension. The factor loadings were categorized under the dimension of *social*. "Inmates see their close inmate friends when they

want to” had a factor loading of .723. “Inmates are with their friends at night” had a factor loading of .693. “Inmates let their friends know they care about them” had a factor loading of .634. “Inmates spend several hours each day talking with friends” had a factor loading of .542.

Factor 4 had two items with a factor loading greater than the priori .5. Both of the items were related to Wright’s (1985) dimension of *privacy*. “Inmates read without being disturbed” had factor loading of .847. “Inmates can be along with being disturbed” had a factor loading of .819.

Factor 5 had three salients greater than .5. Two of the items were related to Wright’s (1985) dimension of *support* and the other item to *emotional feedback*. As such, this factor was categorized as a *mixed* dimension. “Prison programs help inmates make parole” had a factor loading of .881. “A person learns new skills in here” had a factor loading of .563. “The guards tell inmates what they do well” had a factor loading of .505.

Factor 6 had two salients greater than .5. These two salients were related to Wright’s (1985) dimensions of *freedom* and *activity*. Due to these results, this factor was categorized as a *mixed* dimension. “Inmates receive visitors anytime during the day” had a factor loading of .835. “There is at least one movie each week” had a factor loading of .686.

Factor 7 had two items with a factor loading greater than the priori .5. These items were related to Wright’s (1985) dimensions of *freedom* and *activity*. Due to these results, this factor was categorized as a *mixed* dimension. “Inmates lift weights when they want to” had a factor loading of .905. “Each inmate can lift weights at least 1 hour per day” had a factor loading of .795.

Factor 8 had one item with a factor loading greater than the priori .5. “Prison officials help inmates with problems” had a factor loading of .837. Due this component having only one item, the factor could not be confirmed.

Based on these results, Wright’s (1985) study was partially supported. Of the eight dimensions, this sample confirmed two. These two dimensions were related to Wright’s (1985) dimensions of *safety* and *privacy*. The dimensions of *activity*, *emotional feedback*, *freedom*,

*support, structure, and social* did not emerge from this sample. Also, the eighth factor did not load any of the eight dimensions.

### Close Security

The Principal Component analysis for the close security setting prison sample extracted 15 components with eigenvalues greater than 1. These 15 components accounted for 68% of the cumulative variance in the unrotated solution. From these 15 components, 8 of them accounted for 50% of the cumulative variance in the unrotated solution.

Factor 1 had four salients greater than .5. Two of the salients were related to Wright's (1985) dimension of *activity* with the other two to *freedom* and *emotional feedback*. As such, this factor was categorized as a *mixed* dimension. "Each inmate can lift weights at least 1 hour each day" had a factor loading of 1.028. "Inmates lift weights when they want to" had a factor loading of .823. "Guards tease depressed inmates" had a factor loading of .753. "Inmates keep busy with their hobbies" had a factor loading of .544.

Factor 2 had three items with a factor loading greater than the priori .5. The three items were related to Wright's (1985) dimension of *safety*. "Weaker inmates are sexually attacked" had a factor loading of .928. "A weaker inmate is physically attacked" had a factor loading of .902. "An inmate's cell is robbed" had a factor loading of .579.

Factor 3 had three items with a factor loading greater than the priori .5. Two of the items were related to Wright's (1985) dimension of *structure* and the other to *support*. Due to these results, this factor was categorized as a *mixed* dimension. "Inmates know what will get them written up by a guard" had a factor loading of .931. "Inmates know the rules" had a factor loading of .921. "Inmates know what will happen if they violate the rules" had a factor loading of .700.

Factor 4 had three salients greater than .5. These three salients were related to Wright's dimension of *emotional feedback*. "Inmates let their friends know they care about them" had a factor loading of .923. "Inmates talk to one another about their feelings" had a factor loading of .829. "Inmates care about one another" had a factor loading of .530.

Factor 5 had three salients greater than .5. Two of the items were related to Wright's (1985) dimension of *support* and the other to *emotional feedback*. As such, this factor was categorized as a *mixed* dimension. "If an inmate tries a new hobby or art, the guards will encourage him" had a factor loading of .878. "The guards tell inmates what they do well" had a factor loading of .783. "Prison officials help inmates with problems" had a factor loading of .526.

Factor 6 had two items with a factor loading greater than the priori a .5. Both of these items were related to Wright's (1985) dimension of *freedom*. "Inmates listen to music when they want" had a factor loading of .866. "Inmates stay up as late as they want" had a factor loading of .820.

Factor 7 had three items with a factor loading greater than the priori .5. All three of the items were related to Wright's (1985) dimension of *support*. "Prison programs help inmates make parole" had a factor loading of .843. "Prison programs teach inmates new skills" had a factor loading of .775. "A person learns new skills in here" had a factor loading of .536.

Factor 8 had one salient greater than .5. "Inmates spend several hours each day talking with friends" had a factor loading of .950. Due to this component having only one item, the factor could not be confirmed.

Based on the results for this sample, they would indicate that Wright's study was not supported. Of the eight dimensions, five were supported for this sample. These were related to Wright's (1985) dimensions of *safety*, *emotional feedback*, *freedom*, *support*, and *privacy*. The dimensions of *activity*, *freedom*, and *structure* did not load for this sample. The eighth factor of this sample did not load any dimension.

In sum, the findings per sample are as follows: For the total prison sample, these three factors: safety, emotional feedback, and privacy were supported. For minimum security, safety, emotional feedback, and privacy were supported. For medium security, the factors: safety, emotional feedback, privacy, and social were supported. For maximum security, these two factors: safety and privacy were supported. For close security, the factors: safety, emotional

feedback, freedom, and support were supported. For the combined sample of medium and maximum security, these four factors: safety, emotional feedback, privacy, and social were supported.

### Confirmatory Factor Analysis Using Structural Equation Modeling

#### Structural Equation Modeling

Structural equation modeling (SEM) was used to determine whether or not Wright's (1985) proposed factor structure was a valid scale for assessing inmate environmental concerns. In keeping with Wright's study, only the combined sample of medium and maximum security, N = 580, was used. As the results demonstrate in (see Table 3), Wright's factor structure along with all hypothesized items purporting to measure each factor--except item 29 under emotional feedback--was supported.

Table 3

#### Structural Equation Model

#### Item By Factor

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##### Activity

- PEI-3 "There is at least one movie each week." \*
- PEI-18 "An inmate obtains training if he wants." \*
- PEI-27 "Inmates have something to do every night." \*
- PEI-31 "Each inmate can lift weights at least 1 hour each day." \*
- PEI-34 "Inmates keep busy by participating in sports." \*
- PEI-43 "Inmates keep busy with their hobbies." \*

##### Emotional Feedback

- PEI-2 "The guards tell inmates when they do well." \*
- PEI-7 "The guards ask inmates about their personal feelings." \*
- PEI-21 "Inmates care about one another." \*
- PEI-29 "Guards tease depressed inmates."
- PEI-33 "Inmates talk to one another about their feelings."\*
- PEI-38 "Inmates let their friends know they care about them." \*
- PEI-41 "Inmates who do favors for their friends are liked." \*

Table 3 (continued)

*Structural Equation Model*

*Item By Factor*

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Freedom

- PEI-16 “Inmates receive visitors any time during the day.” \*
- PEI-25 “Inmates do not have to work if they do not want to.” \*
- PEI-28 “Inmates lift weights when they want to.” \*
- PEI-39 “Inmates are allowed to read when they want.” \*
- PEI-46 “Inmates stay up as late as they want.” \*
- PEI-48 “Inmates listen to music when they want.” \*

Privacy

- PEI-13 “This unit is quiet.” \*
- PEI-15 “Inmates stay in their cells if they want.” \*
- PEI-20 “Inmates read without being disturbed.” \*
- PEI-24 “Inmates can be alone with being disturbed.” \*
- PEI-36 “If an inmate lets other people know he does not want to be bothered, they will not bother him.” \*
- PEI-47 “Inmates have at least 1 hour of uninterrupted time to themselves each night.” \*

Safety

- PEI-4 “An inmate is sexually attacked on this unit.” \*
- PEI-6 “Inmates fight with other inmates.” \*
- PEI-12 “Someone’s cell is robbed on this unit.” \*
- PEI-19 “Weaker inmates are sexually attacked.” \*
- PEI-23 “A weaker inmate is physically attacked.” \*
- PEI-35 “An inmate’s cell is robbed.” \*

Social

- PEI-5 “Inmates spend several hours each day talking with friends.” \*
- PEI-8 “Inmates are with their friends at night.” \*
- PEI-11 “Inmates are with more than three friends at a time.” \*
- PEI-14 “Inmates feel free to go up and talk to other inmates even if they are strangers.” \*
- PEI-22 “Inmates see their close inmate friends when they want to.” \*
- PEI-30 “Inmates rap with guards.” \*

Table 3 (continued)

Structure

- PEI-1 “Inmates know what will happen if they violate the rules.” \*
- PEI-10 “Inmates know the rules.” \*
- PEI-37 “Inmates know when the gym is open.” \*
- PEI-40 “Inmates know when they can take a shower.” \*
- PEI-44 “Inmates know when the commissary is open.” \*

Table 3

*Structural Equation Model*

*Item By Factor*

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Support

PEI-9 “If an inmate tries a new hobby or art, the guards will encourage him.” \*

PEI-17 “Prison officials help inmates with problems.” \*

PEI-26 “A person learns new skills here.” \*

PEI-32 “Inmates know what will get them written up by the guards.” \*

PEI-42 “Prison programs teach inmates new skills.” \*

PEI-45 “Prison programs help inmates make parole.” \*

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$p < .05$

Using SEM, two analyses were performed. For the first analysis using SEM, the 48 individual items loaded on the environmental factors as Wright (1985) hypothesized they would. The results found that item 29 was not statistically significant ( $p < .05$ ). Due to this, the item was removed for a second analysis.

Fit Indices

The final chi-square resulted in a measure of 4062.22 ( $p < .001$ ) with 1026 degrees of freedom ( $p < .000$ ). As such, these results indicate that the null hypothesis,  $H_0$ , is rejected. Thus, the model is not an accurate scale for assessing inmate concerns. This is likely the result of the large sample size, as large samples frequently lead to the rejection of the null hypothesis,  $H_0$ .

The Norm Fit Index (NFI) obtained a measure of 0.931. This score indicates that Wright's (1985) model is considered to be well fitting. According to Ellwanger (2005) an NFI .90 is indicative of a well fitting model. The Comparative Fit Index (CFI) obtained a measure of 0.948. This model is considered to be well fitting if in excess of .95. These two fit indices should also be considered in relation to the root mean square error of approximation.

Root Mean Square Error of Approximation

The root mean square error of approximation (RMSEA) is a measure that indicates the average amount of error that exists across the model, such as Wright's (1985) PEI scale

(Ellwanger, 2005). An acceptable RMSEA should not exceed .10 while .05 is considered to be extremely well fitting. The RMSEA reported here was .065. Furthermore, the 95% confidence interval ranged from .063 - .067 suggesting the model is extremely efficient.

### Summary

The results that were found using Principal Component analysis did not partially Wright's (1985) prison environmental inventory scale. Rather, the results support specific dimensions of the prison environment. Of the eight environmental dimensions, safety, emotional feedback, and privacy were the most consistent. Safety found support across the six samples. Emotional feedback along with privacy found support on five of the six samples, the dimension of social found support from two of the samples, and the dimensions of freedom and support each found support from one sample. The dimensions of activity, freedom, support, and structure did not find support from within six samples. The results from the Confirmatory Factor analysis using structural equation modeling (SEM) supported Wright's prison environmental inventory (PEI) scale for each environmental dimension.

## CHAPTER 5

### DISCUSSION

The purpose of the current study was to investigate the eight dimensions of the prison (Toch, 1977) environment by using Wright's (1985) Prison Environment Inventory (PEI) scale to determine which of the dimensions existed. These dimensions were activity, emotional feedback, freedom, privacy, safety, social, structure, and support. It was found that the existing literature on the prison supported these dimensions (e.g. see Borrill et al., 2003; Boudouris & Brady, 1981; Carriere, 1980; Cressey, 1958; Cooper, 1974; Frey & Delaney, 1996; Kratoski & Babb, 1990; Mawby, 1982; Ruback & Carr, 1984; Ruback et al. 1986; Suedfeld, 1980; Sykes, 1958; Zingraff, 1980). According to the literature, these dimensions are independent manifestations of the prison and carry their own individual make-up. These dimensions are reported to be prevalent factors within the prison environment and constitute the prison as a body that contains its own mores, norms, and behavior.

#### Findings

##### Principal Component Analysis

The analyses, which used the method of principal component analysis, for the total inmate sample, combined medium and maximum security sample, and the four individual security levels found little support for Wright's (1985) findings using his PEI scale. Of these samples, there was no support found for all eight of the environmental dimensions. Rather, each security sample contained specific dimensions. In short, this method of principal component analysis did not lend support for Wright's (1985) Prison Environment Inventory scale, which found eight independent environmental dimensions.

For those dimensions that loaded from the sample of all four security levels, safety was found to be the most salient dimension. Following safety, structure was found to be the next dimension of concern followed by support. From this point, the two remaining dimensions that independently loaded were privacy and emotional feedback. The remaining three dimensions of concern were mixed. These mixed dimensions contained other dimensions such as safety,

activity, and freedom in equal or lesser numbers. For each individual security level, the most salient dimension of inmate concern was safety as supported by the eigenvalues per sample. For the combined sample of medium and maximum, the greatest dimension of inmate concern was structure.

#### Total Inmate Sample

For the total inmate sample, three factors found support for the dimensions of safety, privacy, and emotional feedback. The remaining five factors were classified as mixed dimensions, which were composed of more than one environmental dimension. Of the dimensions that found support, safety was the most salient dimension of concern with an eigenvalue of 7.13. Privacy was the next dimension of concern with an eigenvalue of 1.98. Emotional feedback followed with an eigenvalue of 1.81.

It was expected that safety would load as the primary concern for inmates across all security levels. This expectation was due to notions of the prison environment being one of extreme brutality and violence as well as being supported by the scholarly literature (Atlas, 1984; Carriere, 1980; Dinitz, 1981; Ellis et al. 1974; Poole & Regoli, 1983).

#### Medium and Maximum Security

The sample for medium and maximum security found support for four of the eight dimensions. The remaining four dimensions were classified as mixed. When the factor is classified as mixed, it may contain the two or more dimensions such as activity and freedom or social. For those dimensions that found support, the most salient dimension of concern for inmates was safety with an eigenvalue of 3.98. Following was the dimension of emotional feedback with an eigenvalue of 2.11. The third dimension of concern was privacy with an eigenvalue of 1.73. The last dimension of concern was social with an eigenvalue of 1.38.

#### Minimum

For minimum security, three dimensions were supported. Those were dimensions were safety, privacy, and emotional feedback. Safety loaded as the primary dimension of concern with an eigenvalue of 7.17. Privacy loaded with an eigenvalue of 2.87. Emotional feedback

loaded with eigenvalue of 1.60. Five factors loaded as mixed dimensions. These mixed dimensions were composed of two or more varying environmental dimensions such as activity, social, and structure. In explaining why safety loaded as the primary dimension of concern, there are three possible explanations. One, this may be due to the disposition of minimum security inmates since those sentenced to minimum security are generally not violent. Two, the type of threats towards inmate safety found in maximum and close security prisons, and even medium security prisons, are possibly not as severe among inmates incarcerated in minimum security facilities. The third possible explanation has to do with first-time inmates. Their perceptions of prison life may be exaggerated due to such factors such as the print media, or movies, thus creating a greater perceived risk or threat to their personal safety.

### Medium

For medium security, four dimensions were supported and loaded on factors one, four, five, and eight. The dimension of *safety* was the primary dimension of concern with an eigenvalue of 6.68. *Privacy* loaded as the next dimension with an eigenvalue of 2.33 followed by *emotional feedback* with an eigenvalue of 1.86. Social loaded as the last dimension, or eighth factor, with an eigenvalue of 1.46. The remaining four dimensions loaded as *mixed*.

In trying to provide some possible reasons for safety loading as the primary dimension of concern among inmates in medium security, focus needs to be placed on two areas. Inmates found in medium security generally have a heightened risk for violent behavior over those in minimum security. Additionally, they are usually housed in dormitories, which greatly increase the likelihood of victimization due to inmate proximity. As reported by Chameline et al. (1975), medium security prisons do not place a great deal of control or watch on inmate movement, which increases the likelihood for victimization among inmates.

### Maximum

For maximum security, two dimensions were supported on factors two and four. Safety was the primary dimension of concern with an eigenvalue of 3.86. Privacy loaded with an eigenvalue of 1.90. Five factors loaded *mixed* dimension with one factor finding no support for

the eight dimensions. This “no load” factor contained only one factor loading higher than the a priori of .5.

As with minimum and medium security, safety loaded as the primary dimension of concern. Due to the security setting, it is understandable that safety would load as the primary dimension of concern. Maximum security prisons are reserved for those offenders who pose the strongest threat to society (North Carolina Bureau of Correction, 2005). Inmates sentenced to maximum security facilities often have violent criminal histories and continue to actively engage in violence. Due to this climate of violence and hostility, some inmates are forced into perpetrating violence in order to keep themselves from being victimized.

When examining why the other six dimensions did not load for this sample, a possible explanation can be found by interpreting the results. The results indicate that this security setting is not intended or designed to meet inmate needs which fall under the purview of such dimensions as activity, emotional feedback, social relations, or support. Rather, the results indicate that maximum security prisons are for the sole purpose of housing and confinement.

#### Close

For close security, four dimensions were supported on factors two, four, six, and seven. As with the preceding three levels of security, *safety* loaded as the primary dimension of concern with an eigenvalue of 4.68. *Emotional feedback* followed with an eigenvalue of 2.82 with *freedom* and *support* had eigenvalues of 1.88 and 1.71. Three dimensions loaded as *mixed* with the eighth factor supporting none of the environmental dimensions. In explaining why safety loaded as the primary dimension of concern, attention needs to be placed on those inmates who have a propensity towards violence (North Carolina Department of Correction, 2005) and the factors associated with violent episodes such as inmate proximity, boredom, and racial discord.

#### Confirmatory Factor Analysis Using Structural Equation Modeling

The dimensions of activity, emotional feedback, freedom, privacy, safety, social, structure, and support were supported based on Wright’s (1985) structural scale from the combined medium and maximum inmate sample. Based on the results using SEM, these

dimensions were shown to measure their intended area of inmate concern. In short, this analysis supported and replicated the findings from Wright's (1985) study, which found his PEI scale to be a reliable measure of inmate concerns.

### Implications

The results from the structural equation model (SEM) found Wright's (1985) scale to accurately measure and operate as it was intended. As it stands, his scale carries the merit it requires, given the sample sizes from the original study (N = 900) and this study (N = 580) and results, for it to be applied across multiple prison security levels. If properly used, this scale would allow prison administrative officials to implement and design prison programs and address operational procedures that would assist in reducing the impact of the prison environment. Reducing the hostile and negative climate of the prison could encourage inmates to participate in rehabilitative programs; it could ease the transition back into society upon reentry; and it would reduce the mental, emotional, and physical damage that is brought on inmates throughout their incarceration.

How can the results of this study be applied to the institution of the prison? The answer to this question is dependent on the prison ideal of rehabilitation and its relation to the inmate; specifically, how does the mission goals of the correctional departments used in this study apply to those inmates who desire to develop prosocial skills or other rehabilitative skills?

Because the rehabilitative ideal of prisons are structured, designed, and carried out by the prison administration, it is easy to overlook the role inmates play in this process. Inmates have to feel, to some positive extent, that they need to participate in a support program to better themselves if they are to work. The administration can compel or force inmates to participate, but if the inmates are not personally involved and feel that they have no positive stake in the process, they may withdraw from this process, or simply follow it in order to appease the administration. For those inmates who do participate, it is hoped they are doing so to facilitate and ease their transition back into society upon their release. Furthermore, inmates who desire to better their skills, whether it is vocational or personal, may feel as if they have some social

capital investment in their community. Thus, to fulfill this community investment, they have to avoid their criminal tendencies. As such, this idea is utilitarianistic in nature. In short, for the prison facility to ensure that citizens of the community are kept safe, they have to instill within inmates skills that support the utilitarianistic model while at the same time keeping the community safe.

The goals of the Kentucky Department of Corrections is to protect citizens of the state, ensure that inmates and staff are housed in a hospitable and secure environment, and to provide inmates with opportunities to develop the personal skills that will be needed to discourage future criminal behavior upon reentry to society (Kentucky Department of Corrections, 2006). The goals of the Tennessee Department of Correction are: 1) use incarceration and rehabilitation to protect members of society, 2) use technology to optimize prison operation, and 3) to provide inmates with the necessary skills to reduce their criminal tendencies and behavior (Tennessee Department of Correction, 2006). The Ohio Department of Correction aims to ensure the safety of the state's citizens by housing inmates in a secure and well-maintained environment. The department will also provide inmates with the necessary support programs that will facilitate their reentry to society upon release.

First and foremost, the rehabilitative goals of these departments are designed to address the community standard of safety. Therefore, if prison administrations are to ensure that inmates do not pose a threat to society upon release, they need to maintain a safe environment. By maintaining a safe environment, inmates may be more likely to follow the rules and maintain self-order while incarcerated, which is needed in part to implement and carry out support programs.

In short, the objectives of a prison, specifically those of rehabilitation, are directly affected by the dimension of safety. This dimension supersedes all other is should be viewed as the underlining and superlative pillar of the prison. It can be argued that the dimensions of activity, freedom, emotional feedback, privacy, social, structure, and support are equally important in regards to this ideal, and that they parallel safety. Rather, these dimensions play a

supporting role, with some to a greater degree than others such as privacy and emotional feedback to. They are necessary not only to carry out the rehabilitative objectives but to also ensure that those goals, when met, are instilled within the individual inmate.

### Limitations

There are several limitations to this study that concern the methodology along with correctional populations which were not considered. The sampling methods used for the inmate sample found issue with the sampling methods for the correctional departments of Tennessee, Kentucky, and Ohio. The sampling methods used for the states of Kentucky and Tennessee used a manufactured list that contained inmates who had been incarcerated for at least 1 year. The state of Ohio did not provide a manufactured list of eligible inmates. Rather, the sampling method utilized a sign-up sheet that negated the mandatory incarceration length of at least 1 year. As such, the sample method for Ohio allowed for any of the inmates from the 11 correctional facilities to participate in the study. As such, the inmates who participated from the state of Ohio were not part of the intended target population.

The generalizability of the results is limited based on several reasons such as the proximity of the sample states-Kentucky, Tennessee, and Ohio. These states may share similar cultural norms and customs that may have some effect on how the inmates responded to the survey. This position also gives rise to the impact of correctional procedures and policies, diet of inmates, and their visitation rights. In addition, the results and support obtained for this study should not be viewed as indicative of the inmate concerns for the entire incarcerated population of the United States, both federal and state.

The study was limited to only male inmates across minimum, medium, maximum, and close security. Thus, no inferences can be made for female inmates, juvenile inmates, elderly inmates, inmates on death row, or the security level of supermax. However, attempts made to study inmate concerns of the prison environment for those housed in supermax or serving on death row would be extremely difficult if not accessible. Conversely, difficulty may be encountered even with the lower levels of prison security.

### Recommendations

Future recommendations for study concern multiple areas. Wright's (1985) Prison Environment Inventory scale addresses a wide range of inmate concerns across eight distinct areas. Yet, his scale did not address inmate religion or spirituality within the prison and how it is affected by the prison climate. In addition, his scale did not address inmate health concerns such as physical and/or mental illnesses, diseases, or handicaps that they must deal with during their incarceration.

Given the support found for Wright's (1985) scale for inmates, attention should be given towards the development and implementation of a scale with similar dimensions that can address the concerns of prison guards. If done successfully, researchers can compare the results and determine which dimensions are correlated. Furthermore, it would stand to reason that guards deserve and require the same amount of attention placed on inmates. More so, this scale could be used

To better serve the use of Wright's (1985) scale, studies should be designed, if not already, on its implementation in European, Canadian, and Australian prisons. By implementing his scale across several countries, it would assist the correctional system in being able to draw correlations across a wider inmate sample. The findings could generate new correctional policies, better operational and security procedures, with the ultimate goal of advancing an environment that is better equipped to accommodate the varying behaviors inmates' exhibit as well as incorporating their life experiences to better fit the prison environment.

In addition to using the prison environment scale across countries, attention should be given to studying the effects of the prison environment on race and comparing the results to determine how black or Hispanic inmates perceive the dimension, such as freedom compared to white or Asian inmates. In addition to these findings, it may allow for better interpretation of how institutionalization or prisonization affects inmates based on race.

Due to this study finding support for Wright's (1985) scale, it is recommended that prison administrative officials incorporate it as a tool to monitor inmate adaptation. This could be done

by having inmates complete the scale periodically during the length of their incarceration. The results will then be analyzed to determine how the inmate is reacting and where the inmate is either making gains such as developing a stronger sense of freedom or continuing to maintain a strong perception of risk to their safety. In addition to assisting and tending to individual inmates', administrative officials can address specific groups based on age, race, sentence length, crime, mental disposition, and physical ailments.

### Conclusion

In trying to understand inmate concerns of the prison environment, it is important to be aware of the varying circumstances that exist within prisons across security levels. These circumstances, such as violence, theft, and boredom, are what give rise to the environmental dimensions of activity, emotional feedback, freedom, privacy, safety, social, structure, and support. These dimensions, and their comprising factors, make it difficult for prison facilities to address the ideal of rehabilitation yet alone those of deterrence, incapacitation, and retribution while trying to address and/or placate inmate concerns. Additionally, the function of the prison and its impact on both inmate and guard contributes greatly to problems associated with these dimensions. The difficulties encountered with inmate concerns is heightened by the demands of society which argues for the barest of housing conditions, little or no recreational activities, and for stiffer, longer sentences while asking that those who are released be rehabilitated in hopes of reducing recidivism.

To potentially better the prison ideal of rehabilitation and reduce inmate concerns, effort and resources should be applied to the individual inmate rather than the total inmate population. This can start when offenders enter the prison by using sensitive psychological battery testing to help identify inmates who require specialized needs and placing them into the correct program. These programs would contain the proper resources needed to specifically deal and address unique inmate problems. Inmates who receive this specialized attention may feel as if the criminal justice system views them as an individual rather than a number. This effect can have

positive long-term implications. However, as a caveat to these individualized programs, their success rate is dependent on the stated objectives and goals of each facility.

Inmates coming from various criminal backgrounds such as drug trafficking, child molestation, and burglary can create a great deal of hostility and conflict within the inmate population. Due to this, attention should be directed towards prisons that are designed for certain offenses rather than designed based on security level. Prisons that house related criminal offenders would allow for specific rehabilitation and support programs to be designed and implemented. By separating inmates based on their reason for incarceration, it can assist in problem areas such as the dissemination of criminal techniques between inmates, the violence perpetrated against sex offenders, and the formation and networking of gangs. Also, this system of housing inmates based on their crime may reduce prison operation costs and curtail the wasting of valuable resources and commodities since those resources would have a specific destination. In short, this position is built on a hierarchy that demands resources and attention being placed where they are most needed. Given the current state of Corrections, this approach warrants consideration.

The study has shown that the prison environment is composed of a large number of human social characteristics that affect inmates on all levels of security. These human social characteristics come from the inmate in two ways. The first concerns their prior experiences, attitudes, and behavior prior to entering prison, known as importation. The second concerns when the inmate's prior experiences, attitudes, and behavior come into contact with the prison environment, known as functional adaptation. This interaction is what gives rise to inmate concerns found in areas such as safety, privacy, and structure. If an inmate prior to incarceration placed a great deal of emphasis on privacy, one could expect him to have some concern for this dimension of the environment. During the period of incarceration, if the inmate is not able to experience or feel some sense of privacy, yet alone feel some amount of privacy, it can lead to psychological problems as well as physical altercations with other inmates and staff.

However, as the results indicate, the overwhelming issue of concern for inmates is their personal safety. This dimension is not relegated to the prison environment, though. It is a shared concern among both inmate and community that goes beyond the need to feel safe and secure within their personal space; this notion of going beyond the individual need to feel safe and secure centers on the community standard of safety. Communities, much like individuals, place great emphasis on safety. Therefore, this concern extends beyond the prison walls into the community and beyond. In short, attention should be placed on this concern before addressing other concerns among inmates as reported in the findings. If inmates are left to constantly be on guard, it will only prolong the problems associated with safety, which can prevent attention and resources from being placed on other areas of concern.

When applying symbolic interactionism to the inmate and their environment, it is easy to recognize the difficulties encountered between the self and society, i.e. the society being the prison. Inmates must deal with a wide range of contentious issues that arise between their own personal goals while trying to maintain their position in the prison hierarchy. The friction created by these two dilemmas can have a harmful and long lasting impact on inmates and is what gives rise to concerns in the areas of freedom, activity, and social relations. One preventive measure to offset this requires the administration to foster a prison environment that is both hospitable and caters to inmate issues such as lack of autonomy. Otherwise, if the prison is full of violence, assaults, and psychological deprivation, the drive for inmates is to survive. When this happens, rehabilitation, either individually or en masse, is not likely to take place because inmates are more concerned with their survival than participating in a program that teaches vocational or prosocial skills, or being able to watch a movie. This applies for the community, as well. If citizens do not feel safe, they are less likely to engage within the community, resulting in a loss of social capital. This loss in social capital allows communities to become overridden by crime, which in turn feeds the prison population. Thus, the identification between the individual and community is blurred when there is lack of safety and security. And rather than

working towards the utilitarianistic goal of the community, depending on the community values, individuals work towards their own goals of self-preservation.

In closing, prisons are reflective of societies in that the values shared among citizens are found within the prison walls made possible by inmates and their experiences prior to incarceration. Conversely, just as the values found within prison are reflective of those found within society, the inmates are reflective of persons still in society. The inmates are both violent and decent. However, regardless of the personal qualities found among inmates, they are entitled to an environment that is safe, secure, and supportive no matter their crime.

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