

8-9-2010

Assessing the Malleability of Student Death Penalty Attitudes: An Experimental Test of the Marshall Hypothesis

Amanda K. Cox
Indiana University of Pennsylvania

Follow this and additional works at: <http://knowledge.library.iup.edu/etd>

Recommended Citation

Cox, Amanda K., "Assessing the Malleability of Student Death Penalty Attitudes: An Experimental Test of the Marshall Hypothesis" (2010). *Theses and Dissertations (All)*. 22.
<http://knowledge.library.iup.edu/etd/22>

This Dissertation is brought to you for free and open access by Knowledge Repository @ IUP. It has been accepted for inclusion in Theses and Dissertations (All) by an authorized administrator of Knowledge Repository @ IUP. For more information, please contact cclouser@iup.edu, sara.parme@iup.edu.

ASSESSING THE MALLEABILITY OF STUDENT DEATH PENALTY
ATTITUDES: AN EXPERIMENTAL TEST OF THE MARSHALL HYPOTHESIS

A Dissertation

Submitted to the School of Graduate Studies and Research

in Partial Fulfillment of the

Requirements for the Degree

Doctor of Philosophy

Amanda K. Cox

Indiana University of Pennsylvania

August 2010

© 2010 by Amanda K. Cox

All Rights Reserved

Indiana University of Pennsylvania
The School of Graduate Studies and Research
Department of Criminology

We hereby approve the dissertation of

Amanda K.Cox

Candidate for the degree of Doctor of Philosophy

Jamie S. Martin, Ph.D.
Associate Professor of Criminology, Advisor

Randy L. Martin, Ph.D.
Professor of Criminology

Jennifer J. Roberts, Ph.D.
Associate Professor of Criminology

Susan T. Zimny, Ph.D.
Professor of Psychology

ACCEPTED

Timothy P. Mack, Ph.D.
Dean
School of Graduate Studies and Research

Title: Assessing the Malleability of Student Death Penalty Attitudes: An Experimental Test of the Marshall Hypothesis

Author: Amanda K. Cox

Dissertation Chair: Dr. Jamie S. Martin

Dissertation Committee Members: Dr. Randy Martin
Dr. Jennifer Roberts
Dr. Susan Zimny

This experimental study examines the effects of various types of information about the death penalty on the attitudes of 362 undergraduate students at a university in the Northeast. This study attempts to expand upon previous research that has examined the malleability of student death penalty attitudes and, specifically, focuses on isolating the type of information most important to changing death penalty attitudes and examines the role that retributiveness and attitude strength may play in this relationship. Using a stratified cluster sampling procedure, self-administered pre- and post-tests were distributed to criminology and non-criminology students during February and March 2010. Vignettes, which included various types of information about the death penalty, were employed as an experimental stimulus.

The results from this study indicate that students who received information about socioeconomic discrimination in application of the death penalty and the high cost of the punishment were the most likely to exhibit change in their death penalty attitudes at post-test. Students who received information about wrongful capital convictions, racial discrimination in application of the death penalty, and the lack of a general deterrent impact of the punishment, as well as those who received information about all five of the death penalty factors, did not exhibit statistically significant change in their attitudes at post-test. However, the results also indicate that the type of information students received

did not impact the degree of change in death penalty attitude between pre- and post-test. Likewise, it was found that the strength of a student's death penalty attitude, as well as their level of retributiveness, did not explain the variance in death penalty attitude between pre- and post-test.

TABLE OF CONTENTS

	Page
Chapter I	INTRODUCTION 1
Chapter II	BACKGROUND 6
	Introduction..... 6
	History of Death Penalty In America..... 6
	Popular Justifications for Death Penalty Support 12
	Problems in Administration of the Death Penalty 38
Chapter III	SUPREME COURT CASES AND ATTITUDES 52
	<i>Furman v. Georgia</i> 52
	<i>Gregg v. Georgia</i> 60
	Attitudinal Research..... 62
	Tests of the Marshall Hypothesis..... 69
Chapter IV	METHODS 85
	Purpose..... 85
	Research Design..... 87
	Research Questions and Hypotheses 88
	Sampling 92
	Survey Instrument 94
	Procedures..... 102
	Human Subjects Issues 105
Chapter V	ANALYSIS AND RESULTS 107
	Frequencies and Descriptive Statistics..... 107
	Bivariate Correlations 120
	T-test 123
	Analysis of Variance..... 125
	Multiple Regression 126
	Research Hypotheses 134
	Summary 141
Chapter VI	DISCUSSION AND CONCLUSIONS 143
	Discussion of Research Findings 145
	Educational Implications 154
	Strengths and Limitations 156

Directions for Future Research	159
Conclusions.....	161
REFERENCES	164
APPENDICES	172
Appendix A - Pre-test	172
Appendix B – Vignettes.....	177
Appendix C – Experimental Post-test.....	181
Appendix D – Control Post-test.....	183
Appendix E – Access Letter to Professors.....	185
Appendix F – Informed Consent.....	187

LIST OF TABLES

Table 1: Studies Testing One or More Parts of the Marshall Hypothesis	71
Table 2: Frequencies and Percentages for Demographic Variables	108
Table 3: Frequency and Percentage for Death Penalty Class Variable	109
Table 4: Frequencies and Percentages for Educational Variables.....	110
Table 5: Descriptive Statistics for Knowledge Variables.....	111
Table 6: Item-Total Correlations and Alpha for Death Penalty Knowledge Scale	114
Table 7: Descriptive Statistics for Retribution and Attitude Strength Variables.....	116
Table 8: Descriptive Statistics for Death Penalty Attitude Variable	118
Table 9: Frequencies and Percentages for Information Type.....	119
Table 10: Bivariate Correlation Matrix	120
Table 11: Descriptive Statistics for Death Penalty Attitude Change for Different Types of Information.....	126
Table 12: Control Variables and Retribution Variable for Criminology Majors.....	128
Table 13: Control Variables, Retribution Variable, and Attitude Strength Variable for Criminology Majors.....	130
Table 14: Control Variables and Retribution Variable for Non-Criminology Majors.....	131
Table 15: Control Variables, Retribution Variable, and Attitude Strength Variable for Non-Criminology Majors.....	133

CHAPTER I

INTRODUCTION

The death penalty is a subject that sparks much debate among criminologists, criminal justice practitioners, and the general public. While some are staunch supporters of the punishment, others have criticized it as excessively harsh, unjust, and worthless as a deterrent mechanism. In the 1972 *Furman v. Georgia* decision, Supreme Court Justice Thurgood Marshall presented the argument that Americans know little about the death penalty, and if they were educated about the purposes and shortcomings of the punishment, they would conclude that it is “shocking, unjust, and unacceptable”. These propositions have since become known as the Marshall hypothesis, and several scholarly studies have focused, directly or indirectly, on its examination, with most studies using essays and courses to educate participants about the death penalty (Bohm, 1989, 1990; Bohm, Clark, & Aveni, 1991; Bohm & Vogel, 1994; Cochran, Sanders, & Chamlin, 2006; Ellsworth & Ross, 1983; Lambert & Clarke, 2001; Sandys, 1995; Sarat & Vidmar, 1976; Vidmar & Dittenhoffer, 1981; Wright, Bohm, & Jamieson, 1995). Past studies of this nature have provided research participants with information on problematic issues related to the application of the death penalty, such as the possibility of executing an innocent person, racial disparities in the application of the death penalty, examples of botched executions, and the deterrence capacity (or lack thereof) of the punishment. Such studies have generally shown that providing people with information on capital punishment results in modest decreases in support for the death penalty (Bohm, 1989; Bohm et al., 1991; Bohm & Vogel, 1994; Cochran et al., 2006; Ellsworth & Ross, 1983;

Lambert & Clarke, 2001; Sandys, 1995; Sarat & Vidmar, 1976; Vidmar & Dittenhoffer, 1981; Wright et al., 1995).

While these studies have begun to address the question of the impact of information on death penalty attitudes, it has not yet been possible to reach a firm conclusion regarding the effects of information on death penalty attitudes. As such, further research, which begins to address some of the limitations of previous studies, is necessary. To date, no empirical study has attempted to isolate which information is most important in changing individuals' attitudes of the death penalty. The present study attempted to accomplish this by providing most participants with information about one of five important death penalty factors (wrongful capital convictions, racial discrimination in imposition of the death penalty, socioeconomic discrimination in imposition of the death penalty, lack of a deterrent impact, and cost). Only one group of participants received information about all of these factors. It was thought that providing participants with information about only one factor would be helpful in determining which factor(s) is most important to changing death penalty attitudes.

Additionally, no previous study has examined the possible influence of attitude strength on the malleability of death penalty attitudes. Because empirical research has suggested that attitude strength may be an important factor in the malleability of such attitudes, it is essential that this relationship be examined (Bizer & Krosnick, 2001). The present study attempted to explore this relationship by employing measures of attitude severity and certainty, which have been shown to underlie attitude strength (Bassili, 1996).

The present study also attempted to address several methodological limitations that are present in many other studies of this nature. The use of an experimental design with participants randomly assigned to experimental and control conditions helped ensure that the results of this study could be more readily attributed to the experimental stimulus rather than some other variable. Additionally, the present study included criminology majors as well as non-criminology majors to help improve the representativeness of the sample and, thus, the generalizability of the results. Many previous studies of this nature have not randomly assigned participants to treatment and control conditions and, likewise, have included only (or mostly) criminology majors, which limits the validity and generalizability of the results in these studies.

It is important to further explore the relationship between information about the death penalty and death penalty attitudes because it would likely have implications for capital punishment policy. To elaborate, it is useful to consider Bohm's (2007) argument that individuals who support the death penalty should support the way that it is applied in practice, not in theory. In other words, people should support the reality of capital punishment, not some unobtainable ideal (Bohm, 2007). If people were aware of the way this punishment is applied in reality, and the problems with its application, they may be less likely to support it. While the present study is not likely to change the death penalty attitudes of the general public, it will help to shed light on the validity of the claims made by Justice Marshall in *Furman* (1972). If the public is not supportive of the death penalty, it is possible that it could be abolished or its administration altered. As Justice Marshall stated in *Furman* (1972), it is important to understand the public's attitudes toward a

punishment because those attitudes, in part, determine the constitutionality of that punishment.

Chapter II provides the background necessary to an understanding of public opinion about the death penalty. Because the purpose of this study was to gain a better understanding of death penalty opinions and their variability, it is necessary that a deeper understanding about issues of public support be achieved. The chapter begins by providing a brief history of death penalty support. Additionally, this chapter provides a discussion of the reasons that underlie death penalty support. Finally, this chapter provides a discussion of the problems in the administration of the death penalty. This final section of the chapter presents five of the independent variables that will be employed in the present study.

Chapter III presents a more detailed discussion of the *Furman v. Georgia* (1972) decision in which Supreme Court Justice Thurgood Marshall presented his argument, which is the topic of study in the present venture. Likewise, a brief discussion of the *Gregg v. Georgia* (1976) decision, which reestablished the constitutionality of the death penalty in the United States, is provided. Next, the research pertaining to attitudes is summarized with a focus on the effects of attitude strength on the variability of attitudes. Likewise, a brief discussion of research pertaining specifically to death penalty attitudes is presented. Finally, chapter III closes with a review of the previous studies that have focused on the testing of the Marshall hypothesis. Specifically, the methods used in these studies, as well as their findings and limitations, is discussed.

Chapter IV presents the methodology that was used in this study. An overview of the research design is presented, and the specific research questions and hypotheses that

were examined are provided. Sampling and questionnaire procedures are described in detail in this chapter. Finally, a discussion of human subject issues is provided at the close of Chapter IV.

Chapter V presents the analysis and results of the present study, and Chapter VI provides a discussion of the major research findings. Chapter VI also provides a discussion of the educational implications and strengths and limitations of the present study, as well as directions for future research. Conclusions are discussed at the close of Chapter VI.

CHAPTER II

BACKGROUND

Introduction

The purpose of this chapter is to lay the groundwork for a deeper understanding of public opinion about the death penalty. Because this study is concerned with evaluating the malleability of death penalty opinions, it is important to understand the basis of such opinions. Within the first section of this chapter a brief history of the death penalty, with focus upon public support for the penalty, is provided to illustrate the importance of public opinion for developing and maintaining appropriate criminal sanctions. Second, the most commonly cited reasons for death penalty support are presented. Information about these factors tends to drive support of or opposition to the death penalty and, in an effort to understand the potential changeability of death penalty opinions, an understanding of the reasons that people hold particular opinions is necessary. Finally, information about problems in the administration of the death penalty is presented. This information is essential to the present study because research has indicated that information about such problems (i.e. wrongful capital convictions and racial and socioeconomic discrimination in application of the death penalty) is most likely to influence change in individuals' opinions about the death penalty (Bohm, 1989; Bohm, Clark, & Aveni, 1991; Bohm & Vogel, 1994; Sandys, 1995).

History of the Death Penalty in America

The history of America's harshest punishment is long and complicated, as the punishment has been in use since colonial times, and public opinion has influenced death penalty practices for nearly as long. The use of the death penalty as a criminal sanction

has been shaped by socio-cultural, historical, religious, and more recently, economic factors. In reviewing the history of this punishment, these factors become apparent as we have witnessed fluctuations in both support for, and application of the death penalty. As detailed in the section below, this instability has continued in the present.

Since the first documented execution in the American colonies occurred in 1608, death penalty practices have changed greatly. During these early times, the death penalty could be imposed upon offenders accused of many offenses including treason, manslaughter, rape, robbery, burglary (Banner, 2002; Costanzo & White, 1994; Paternoster, Brame, & Bacon, 2008), and executions were held in public. Public executions were justified on the basis that those who witnessed executions would be discouraged from committing crime as a result of the execution of a guilty offender and, additionally, that public punishment was the best way to satisfy citizens' desire for retribution (Banner, 2002; Linders, 2002; Paternoster, Brame, & Bacon, 2008).

Although general support for the death penalty continued throughout the colonial era, the public began to question the appropriateness of the punishment for property offenders in the mid 1700s, and this practice became highly contested by the late 1700s. Such discontent helped pave the way for the abolition of the death penalty for property offenses in the 1820s. This, as well as the public's softening of attitudes toward criminals, gave rise to the first wave of strong opposition to the death penalty, in general (Banner, 2002; Paternoster, Brame, & Bacon, 2008). Those who opposed the death penalty questioned common justifications for the punishment, including the general deterrent impact of the death penalty and the appropriateness of the penalty as an act of retribution (Banner, 2002).

In 1830, the public also began to change their attitudes about public executions, finding them to be appalling and viewing those who attended them to be contemptible. As a result, public interest in and support for these spectacles diminished, and between 1830 and 1860, every northern state moved executions from public squares into the jail yard, restricting most citizens from attending these once public events. This development provided further credence to those who questioned the general deterrent impact of the death penalty and the potential for achieving retribution through execution. Such goals could obviously not be obtained if executions were no longer carried out in public (Bohm, 2003; Costanzo, 1994; Linders, 2002).

The 20th century was also a period for changing death penalty opinions and legislation. People had begun to question the idea that crime was a product of free will, and as critics undermined conventional wisdom about the deterrent potential of the death penalty, public support for the punishment decreased. One could surmise that such changing conceptions, as well as falling violent crime rates and waning fear of crime during the late 19th century, contributed to the abolition of the punishment in ten states between 1897 and 1917. And, although wartime and postwar fear of crime led to most of these states reinstating the penalty in the mid 20th century, executions of people believed to be innocent, as well as racial and economic disparities in application of the death penalty, further diminished public support for the punishment. (Banner, 2002; Galliher, Ray, & Cook, 1992).

Prior to 1936, public opinion regarding the death penalty was not a scientific matter, and one could not be certain about the relationship between death penalty support and those important historical developments discussed above. Since 1936, Gallup

Incorporated (2008) has collected and published data regarding public support for the death penalty, and the degree of support for the punishment has been well documented ever since. A look at these public opinion polls indicates that support for the death penalty has indeed been influenced by, and reacts to, many important historical events and factors.

Between 1936 and 1966 public support for the death penalty hit a record low, declining from 59 percent to 42 percent with a majority of the public (47 percent) opposing the punishment (Gallup, 2008). Anti-death penalty sentiment from famous people, intellectuals, and religious figures during the 1950s and 1960s likely contributed to the decreasing level of support for the death penalty during this period. The execution of individuals believed to be innocent, as well as the abolition of the death penalty in most other North American and western European nations by the 1960s also contributed to the low level of support for the death penalty in 1966. These factors would eventually influence the greatest bout of death penalty legislation since before World War I (Banner, 2002; Horwitz, 1973).

By 1969, fourteen states had abolished the death penalty, and many others came close. With the abolition of the death penalty occurring in many states across the nation and the low level of public support for the punishment, it was not surprising that, on June 29, 1972, in a group of cases commonly referred to as *Furman v. Georgia*, the Supreme Court declared the death penalty to be in violation of the Eighth Amendment against cruel and unusual punishment as a result of “arbitrary and discriminatory” sentencing (Acker, 1996; Banner, 2002; Costanzo & White, 1994; Paternoster, Brame, & Bacon,

2008; Smith & Wright, 1992). The *Furman* (1972) decision, which will be discussed in detail in chapter 3, put a temporary moratorium on executions in the United States.

Despite this, in 1969 public support for the death penalty had begun to increase, and by 1976, supporters again outnumbered opponents (Banner, 2002; Gallup, 2008). In accordance with the resurgence of public support for the death penalty a group of cases that came to be known as *Gregg v. Georgia*, established the constitutionality of guided discretion sentencing schemes in capital cases, reintroducing the death penalty to the United States on July 2, 1976 (Acker, 1996; Banner, 2002; Costanzo & White, 1994; Paternoster, Brame, & Bacon, 2008; Smith & Wright, 1992).

Whether this increase in death penalty support was a result of the turbulence of the late 1960s and early 1970s or more of a natural fluctuation as has been asserted by some scholars, the 1980s and 1990s were characterized by strong public support for the punishment (Banner, 2002; Gallup, 2008; Paternoster, Brame, & Bacon, 2008). In 1994, public support for the death penalty reached a record high of 80 percent, with only 16 percent in outright opposition to the penalty. By the start of the 21st century, the death penalty was as firmly established in the United States as it had ever been. However, since 1994, Gallup (2008) polls have shown that public support has basically been decreasing and has not risen above 70 percent since 1999. While the decrease in public support for the death penalty in recent years is relatively modest, scholars have examined this trend, offering a number of explanations for its occurrence.

Some scholars hold that the declining support for the death penalty is a result of “evolving standards of decency”, arguing that as standards of decency evolve, the public’s idea of what is an acceptable and fair punishment changes. As such, excessively

harsh punishments are increasingly seen as cruel and unusual and are no longer considered to be acceptable. Several recent legislative trends and Supreme Court cases lend support to this idea. While no state has reinstated the death penalty since New York did in 1995 (Mallicoat & Radelet, 2004), New Jersey Governor Jon S. Corzine and New Mexico Governor Bill Richardson signed bills to abolish the death penalty in those states in 2007 and 2009, respectively (Death Penalty Information Center, 2009). Additionally, *Atkins v. Virginia* (536 U.S. 304, 2002) put an end to the execution of mentally retarded individuals, and *Roper v. Simmons* (543 U.S. 551, 2005) stopped the execution of those who had committed their crimes while under the age of 18. In both cases, the death penalty was declared to be in violation of the Eighth Amendment against cruel and unusual punishment when applied to these individuals. Such trends indicate the possibility that declining death penalty support may, in part, be a result of evolving standards of decency.

Scholars have also attributed declining death penalty support to rising concern about the execution of innocents. In 2000 Illinois Governor George Ryan, troubled by the number of innocent people released from death row, declared a moratorium on executions in the state until an appointed commission could determine the reasons that so many innocents had ended up on death row. Two years later Governor Ryan issued pardons for four men on death row because he was convinced of their innocence, and, a few days later, commuted the death sentences of 167 prisoners to life (Banner, 2002; Ogloff & Chopra, 2004; Paternoster, Brame, & Bacon, 2008). Governor Ryan's actions, in addition to the release of many other wrongfully convicted individuals from death row,

were highly publicized, and it is possible that these events may have influenced the decline of support for the death penalty.

Public opinion about the death penalty has fluctuated in accordance with legislative changes and highly publicized events related to the punishment throughout history. However, the exact direction of the relationship between public opinion and legislative change is unclear. Throughout the history of the death penalty, public opinion has appeared to influence legislative changes, but legislative changes have also been followed by significant changes in public opinion, making it difficult to determine which phenomenon drives the other. Despite this uncertainty, it can be concluded that, in the history of the death penalty, public opinion has been correlated with legislative changes in the penalty, and will likely continue to do so in coming years. Because the United States is a democratic nation, public opinion should be an important factor in determining which criminal sanctions are appropriate. As Supreme Court Justice Thurgood Marshall stated in his opinion in the 1972 *Furman* decision, a sanction is not acceptable if popular sentiment forbids it. As such, the importance of public opinion in the determination of acceptable criminal sanctions should not be overlooked.

Popular Justifications for Death Penalty Support

There are a variety of reasons that supporters of the death penalty give for their position on the punishment. While it is beyond the scope of this research project to identify and discuss each possible justification for death penalty support, the most common reasons, as identified by a recent Gallup (2003) poll, will be examined in this section since these factors are important to an understanding of death penalty opinion and how such opinions might change with exposure to new information. According to a 2008

Gallup poll, 64% of respondents support the death penalty, and a poll conducted five years earlier (Gallup, 2003) sheds some light on the reasons that respondents support this sanction. In May 2003, the Gallup Organization asked death penalty supporters to indicate the reason for their support of the penalty, and the four most common responses were retribution, general deterrence, cost, and incapacitation. Before getting into a detailed discussion of the research supporting these justifications, it is important that a brief historical explanation for each is given so that a better understanding of each response can be achieved.

Evidence indicates that, while 11 % of death penalty supporters cite general deterrence as justification for their position, most people would not change their position even if they found out that their belief in general deterrence was incorrect. A likely explanation for this fact is that retribution is typically the primary basis for death penalty support, as illustrated by the 2003 Gallup poll in which 37 % of supporters attributed their position to a belief in retribution (Bohm, 1987; Finkelstein, 2002). In other words, those who support the death penalty are likely to hold this position because of the belief that those who are subject to the penalty deserve it, and, therefore, they are unlikely to change their positions even in light of evidence refuting the existence of a general deterrent effect of the death penalty.

Retribution can be defined as “the legal punishment of an individual, with the punishment prescribed by law solely for the reason that those on whom it is inflicted deserve it” (Gibbs, 1978, p. 294). Thus, as applied to the death penalty, the line of reasoning is that those individuals who have taken the life of another individual deserve to have their own life taken. Supporters of retribution as a justification for the death

penalty are concerned mainly with achieving justice and place no emphasis on the general or specific deterrent impact of the penalty (Gibbs, 1978).

The idea of retribution as a justification for punishment in general is not new. Credit for the most fully developed position on punishment as retribution is given to Immanuel Kant (Paternoster, Brame, & Bacon, 2008; Sorell, 2002). Kant developed his philosophy in the 1700s, and his ideas provide a basis for a retributive argument for the death penalty. Kant argued that individuals living in a civil society submit to obeying laws in order to ensure protection of their life and property. In doing so, people acknowledge that, if they commit an illegal action against another, they must be subject to punishment to restore the moral balance that was violated as a result of the criminal act. Under Kant's retributive theory, then, punishment by society achieves the payment of a debt owed by the criminal. Likewise, because the offender agreed to obey the laws of society to ensure his protection, he also consents to his punishment (Paternoster, Brame, & Bacon, 2008).

Retribution has been a justification for death penalty support since colonial times. During these times, criminal behavior was essentially seen as a result of individual choice and free will and, thus, the idea of punishing criminals on the basis of retribution was acceptable. However, this justification fell out of favor for a brief period in the late 19th and early 20th centuries. As discussed above, this shift was a result of the changing nature of the public's opinion about crime and criminals. During this time, people were beginning to view crime as a consequence of biological and social forces, which could not be controlled by the criminal. As such, the idea that criminals had free-will and made conscious decisions to participate in criminal behavior was rejected, and the majority no

longer saw retribution as an acceptable justification for the death penalty. However, the highly publicized turbulence and violence of the late 1960s and early 1970s contributed to the resurgence of the idea that criminals were capable of exercising free will. As a result, views toward crime and criminals hardened, and retribution soon reappeared as a widely held justification for death penalty support (Banner, 2002; Paternoster, Brame, & Bacon, 2008). Since then, retribution has continually been cited as a justification for death penalty support, as is illustrated by the Gallup poll (2003) discussed previously.

General deterrence was the second most commonly cited reason for death penalty support among respondents to the 2003 Gallup poll. Eleven percent of individuals indicated that they supported the death penalty because of the belief that the threat of execution prevents people from committing murder (Gallup, 2003; Paternoster, Brame, & Bacon, 2008). The public generally believes the death penalty to be a better general deterrent than life imprisonment, thus justifying the use of this sanction. The argument over whether the death penalty has superior potential for general deterrence has been in existence since the invention of the prison in the 18th century (Banner, 2002).

This debate experienced a major transformation around the same time that the public began questioning retribution as an acceptable justification for death penalty support. The idea that criminal behavior was a result of genetics and could not be controlled by individuals influenced people to question the general deterrent potential of punishment. If individuals were genetically predetermined to be criminals, it was reasoned, the threat of punishment (such as death) could not logically serve as a deterrent. In addition to these changing conceptions of the causes of criminal behavior, the influx of research, beginning with the work of Sellin in 1959 and continuing with research

conducted by Ehrlich in 1975, and by others since, has brought the general deterrence debate to the forefront. The specific methods and findings of the deterrence research will be fully discussed later in the literature review. However, it is important to note here that general deterrence is still commonly cited as an important reason for death penalty attitudes even though the popularity of this justification has experienced some fluctuation as varying degrees of empirical support for a general deterrent impact of the death penalty were found (Banner, 2002; Paternoster, Brame, & Bacon, 2008).

While some justifications for death penalty support, such as retribution and general deterrence, have been acknowledged for nearly as long as the death penalty has been a criminal sanction, other explanations have come to the surface more recently. Prior to the 1990s, most people were not comfortable with citing cost as part of their motivation for supporting the death penalty (Ellsworth & Gross, 1994). While it is certainly plausible that people's support for the sanction rested, at least partially, upon the perceived lower price tag of the death penalty even before the 1990s, the public generally did not want to admit to such a justification, believing that support for the death penalty might not be acceptable when based on something as seemingly trivial as cost (Ellsworth & Gross, 1994). However, polls conducted since the 1990s indicate that people no longer find a consideration of cost to be unacceptable in terms of reasons for death penalty support. The 2003 Gallup poll indicated that 11 % of respondents supported the death penalty because they believed that it was less costly than life imprisonment. The accuracy of this belief will be examined momentarily, but it is important to note that, presently, many individuals are willing to admit that their support for the death penalty stems, at least in part, from the belief that it is less costly than life imprisonment.

The fourth most commonly reported justification for death penalty support is incapacitation. Put simply, this is the idea that sentencing a murderer to death ensures that he or she will not be able to murder again. Seven percent of respondents in the 2003 Gallup poll indicated that the idea of incapacitation bolsters their support for the death penalty. The belief that the death penalty is necessary to ensure that a murderer does not kill again most likely comes from several well-publicized cases in which convicted murderers were released or escaped from prison and claimed additional lives (Paternoster, Brame, & Bacon, 2008). These instances will be discussed further in a later section of this literature review, but it is important to understand that the public's fear of these convicted murderers contributes to the perceived need and desire to punish such criminals with death. The aforementioned factors (retribution, general deterrence, cost, and incapacitation) are the most widely held justifications for death penalty support among members of the public. As such, it is important to this study that the research relevant to each of these four is examined and understood.

Retribution

One of the themes inherent in Kant's philosophy of retribution is that of proportion. According to retribution theory, it is imperative that the offender's punishment is proportional to the harm inflicted by his crime (Finkelstein, 2002; Gibbs, 1978; Paternoster, Brame, & Bacon, 2008). Some research has suggested that Kant's idea of proportionality is inherently flawed because there is no standard to indicate which punishments are proportional to various criminal acts (Finkelstein, 2002; Gibbs, 1978). While Kant recognized that it can be difficult to determine punishment that would be proportional to some crimes, he also emphasized that death must always be the

punishment for murderers. While Kant argued for punishment by death for those convicted of murder, he did not assert that those who tortured their victims prior to murdering them should be treated in the same way. His justification for this idea was that the torture of an offender would hinder society by bringing it down to the level of the offender (Paternoster, Brame, & Bacon, 2008). Kant also emphasized that retribution should not be seen as synonymous with revenge, and he outlined several distinctions between the ideas in supporting his notion (Paternoster, Brame, & Bacon, 2008).

While several philosophers have agreed with and attempted to expand upon Kant's philosophy of retribution (Berns, 1980; Cassell, 2004; van den Haag, 1985), others have found fault with the idea of retribution as a justification for the death penalty (Bedau, 2004; Finkelstein, 2002; Gibbs, 1978). One of the most prominent arguments against retribution is that it is far too difficult a task to ensure the proportionality of the punishment with the offense that was committed (Finkelstein, 2002; Gibbs, 1978). This problem is present not only in considering a retributive justification for punishment in general, but also for the death penalty in particular. The fact that murder can be committed in a variety of ways and in varying degrees makes it extremely difficult to determine punishment that would be proportional to those crimes. Kant's retributive theory indicates that those who commit murder should be put to death, but it provides no provision for those who commit a less heinous variety of the crime. Davis (2002) provides a rebuttal to this criticism, stating that the varying degrees of murder are, in fact, what justifies the use of the death penalty. He indicates that the use of the death penalty is necessary to distinguish between the most heinous murders and lesser forms of the crime (Davis, 2002).

Gibbs (1978) also finds Kant's retributive philosophy to be troublesome in light of the possibility of error in the criminal justice system. A main assumption of retributive theory is that those who are punished are subject to it because they deserve it. The problem with this, according to Gibbs (1978) is that the possibility remains that an individual convicted of a crime might not be guilty of that crime. So, an individual who is convicted of murder might be sentenced to death as suggested by retributive theory, but the possibility remains that the convicted may not have actually committed the murder. If this were the case, the individual would obviously not deserve to die. Because such an error is possible, it is difficult to justify the death penalty on retributive grounds. While Gibbs (1978) presented this argument several decades ago, the fact that wrongful convictions and DNA exonerations have become more prominent in recent years increases the salience of this issue for the present as well as coming years.

Finkelstein (2002) also finds fault with the idea of consent as put forth in Kant's theory of retribution. According to Finkelstein (2002), the idea of consent contradicts the idea of proportionality, which is central to retributive philosophy. In other words, if people consent to punishment as a part of the agreement that is made with society for their protection, then it is possible that a very harsh punishment (such as death) could be assigned for a minor infraction as long as people were aware that this was the punishment. Obviously, this violates the idea of proportionality, which is so important to Kant's retributive philosophy.

Bedau (2004) provides a sound argument against retribution as an appropriate justification for the death penalty. He states that, while society has a right to punish convicted offenders, it should only use as much force as necessary to obtain its goal.

Bedau (2004) argues that execution involves a great deal more force than does life imprisonment and that life imprisonment is as successful in meeting the goals of punishment as is the death penalty. As such, he deems the death penalty to be excessive and supports the abolition of the death penalty.

It is apparent that there is much disagreement about whether retribution is an acceptable justification for the death penalty. Despite this, it is likely that this argument will be made for many years since it is difficult to discredit, and its effectiveness cannot be easily called into question. Other justifications for death penalty support can be more easily discredited and their effectiveness questioned to a greater degree. The effectiveness of the death penalty as a general deterrent, for example, has been the subject of much debate for many decades.

General Deterrence

With regards to the death penalty, general deterrence refers to the belief that the execution of convicted murderers will serve as an example and prevent other members of society from committing murder (Bohm, 1987; Costanzo, 2001; Paternoster, Brame, & Bacon, 2008). As such, is it not surprising that death penalty supporters frequently cite general deterrence as justification for their position on the punishment. Although general deterrence seems like a reasonable justification for the death penalty, evidence in support of the actual deterrent impact of the penalty is not overwhelming (Paternoster, Brame, & Bacon, 2008). Many researchers have examined the general deterrent impact of the death penalty, and it is useful to borrow Peterson and Bailey's (2003) categorization of the empirical studies as one of three types: comparative, multivariate analyses, and analyses of capital homicide. The results of those studies are telling.

Comparative Designs

One of the earliest tests of the death penalty as a general deterrent was carried out by Thorsten Sellin (1959) and involved a comparative design. Sellin's approach was to compare the homicide rates of adjacent states for the years 1920 to 1955. Sellin utilized neighboring states to help ascertain the similarity of the states to one another, but compared states that had different legal stances on the death penalty. Sellin hypothesized that if the death penalty was a general deterrent, those states that had the death penalty would have lower homicide rates than those states that did not have the death penalty. Results from Sellin's (1959) research were not supportive of this hypothesis. Because Sellin's (1959) work provided no support for the belief that the death penalty was a general deterrent to murder, those who supported the death penalty because they believed it was a general deterrent experienced some doubt in their beliefs. Sellin's failure to find a general deterrent effect of the death penalty in other comparative studies in 1955 and 1967 further enhanced supporters' doubts (Peterson & Bailey, 2003).

Many years later, Peterson and Bailey (1988) updated Sellin's (1959) early work by examining aggregate murder rates and changes in rates for abolitionist and retentionist states and, subsequently, making comparisons between contiguous states. Peterson and Bailey (1988) were not only attempting to replicate Sellin's (1959) results; they were also trying to ascertain the utility of the comparative method in comparison with the use of multivariate designs, which will be discussed momentarily. Results of this effort indicated that homicides were *higher* in states that had the death penalty. These results gave more credence to Sellin's conclusions. Additionally, Peterson and Bailey (1988) found that their use of the comparative method yielded essentially the same results that

were found when multivariate analyses were employed to control for the effects of other variables.

However, it is important to note that, even though use of the comparative method resulted in the same outcome as the multivariate design, there is one serious limitation to using the comparative method for this type of research. The assumption that the states examined were comparable is problematic. While it seems logical that contiguous states would be similar, the fact remains that a death penalty state could very well differ from a non-death penalty state on some important aspect and that such a difference could influence the results of the research. In other words, it is possible that the states examined have high or low murder rates for reasons other than the punishment available for murderers. Failure to determine the comparability of the contiguous states and a lack of important control variables in this type of research make it impossible for the researchers to determine with certainty that their results were not spurious (Shadish, Cook, & Campbell, 2002).

Multivariate Designs

This problematic aspect of Sellin's (1959) research did not go unnoticed. Baldus and Cole (1975) attempted to address this shortcoming by looking at the effect of the death penalty over extended periods of time and by using multivariate analysis to control for the impact of characteristics that would likely influence the murder rate. They found the states to be very similar in regards to these aspects, and after taking these factors into account, no deterrent impact of the death penalty was found. These results helped to strengthen Sellin's earlier conclusions about the death penalty as a general deterrent.

However, it should also be noted that, even if the pairs of states were comparable, as was concluded by Baldus and Cole (1975) the results found when studying such a particular pair may not be generalizable to other pairs of states in the nation. That is, the result found when comparing two mid-western states may not be encountered when pairs of states in other regions of the country (i.e. southern states) are studied. In other words, the cultural, economic or religious differences that exist in different regions of the country suggest that the generalizability of these results should not be assumed (Shadish et al., 2002).

Sellin's (1959) work, as well as that of Baldus and Cole (1975), produced much doubt about the general deterrent value of the death penalty. However, the work of Isaac Ehrlich (1975) soon provided some empirical support for the general deterrent effect of the death penalty. Ehrlich criticized Sellin's work, calling his strategy of comparing death penalty and non-death penalty states inappropriate, and claimed that the use of sophisticated statistical procedures (econometrics using regression analysis), which would allow for the control of factors related to the murder rate and consideration of the actual number of executions, would provide a more effective test of the general deterrent impact of the death penalty. Among those variables Ehrlich thought could affect the murder rate and should be included as controls were measures of the probability and certainty of punishment, income, age composition, and racial composition. Ehrlich hypothesized that higher levels of execution risk would be associated with lower homicide rates. The results of Ehrlich's (1975) research were supportive of his hypothesis, indicating that as many as seven or eight murders could be deterred by each execution in the United States.

After Ehrlich's findings were published, a number of scholars examined his work and presented a number of criticisms, stating that the shortcomings of his study limited the validity of his conclusions (Lempert, 1983; Passell, 1975; Passell & Taylor, 1977). A major shortcoming of Ehrlich's (1975) research is his examination of the nation as a whole. Because Ehrlich failed to distinguish between individual retentionist and abolitionist states and instead examined the nation as a whole, the conclusions that he made about particular jurisdictions are invalid (Lempert, 1983; Passell, 1975; Passell & Taylor, 1977). Additionally, while Ehrlich did emphasize the certainty of execution, his failure to consider whether jurisdictions provided for the death penalty limited his results (Baldus & Cole, 1975).

Finally, and perhaps most importantly, most researchers who have attempted to replicate Ehrlich's (1975) findings found that Ehrlich's use of the 1933 to 1969 time period is likely the reason that a general deterrent impact of the death penalty was found. A general deterrent impact was seen only when the time-series was extended through 1969 as opposed to using an earlier 'end point' in his analysis. The general deterrent effect disappeared when the time period was scaled back to the mid-1960s, suggesting that Ehrlich's addition of the 1966 to 1969 time period was what accounted for his results (Bailey & Peterson, 2003; Layson, 1985; Yunker, 1976). A look at homicide and execution trends from that time period provides support for the accuracy of this criticism. Data from the Bureau of Justice Statistics (BJS) indicates that the average homicide rate was 4.85 per 100,000 citizens and there were 188 executions between 1960 and 1965. Between 1966 and 1969 the average homicide rate increased to 6.9 per 100,000 citizens. Additionally, due to the unofficial moratorium on the death penalty, there were only 3

executions during this period (Bureau of Justice Statistics, 2009). It is clear that such a low number of executions at a time when the homicide rate was increasing would show a deterrent effect of the death penalty where none existed previously.

Despite the findings of the early research of Sellin (1959) and Ehrlich (1975), the debate about the death penalty as a general deterrent to murder has not disappeared. Many other scholars have used a variety of strategies in their attempts to solve the puzzle of the general deterrent impact of the death penalty. While every individual study cannot be examined here, it is useful to take a look at the different types of studies that have been conducted and the conclusions drawn from them.

Interrupted Time-Series Designs

A number of researchers have used interrupted time-series designs to look at the amount of media publicity for executions and the number of subsequent homicides (Bailey, 1983; Bailey, 1990; Bowers & Pierce, 1980; Dann, 1935; Graves, 1956; King; 1978; McFarland, 1983). The basic notion behind this type of research is that a greater amount of publicity for executions will result in an increase in the general deterrent value of the death penalty. Thus, the murder rate should decrease in the time following a highly publicized execution. Most scholars who have undertaken this form of research have found that, contrary to the deterrence hypothesis, the murder rate remained the same or, in many cases, increased following highly publicized executions (Bailey, 1983; Bowers & Pierce, 1980; Dann, 1935; Graves, 1956; King; 1978; McFarland, 1983). Only one study produced evidence of a short-term deterrent effect of execution publicity (Phillips, 1982). The finding of an increase in murder rates after a highly publicized execution

provides support for what has become known as the brutalization hypothesis, which is, put simply, that the death penalty promotes murders (Bailey, 1990).

Other studies have used time-series data to examine homicide rates prior to and following an execution (Cochran & Chamlin, 2000; Decker & Kohfeld, 1986; Sorenson, Wrinkle, Brewer, and Marquart, 1999). Decker and Kohfeld (1986), for example, examined murder and non-negligent manslaughter rates in Florida between 1930 and 1984. The authors found no evidence that execution (or the threat of execution) has an impact on homicide rates. Cochran and Chamlin (2000) examined homicide rates prior to and following the highly publicized execution of Robert Alton Harris, the first individual to be executed following the state's 25-year moratorium on the death penalty. If the deterrence hypothesis is true, the murder rate should have decreased following this highly publicized execution. This study produced mixed results, showing a decline in nonstranger felony-murders and an increase in argument-based stranger murders after the execution. The authors hypothesized this finding to be a result of the existence of informal social controls (i.e. the presence of a prior victim-offender relationship) in the cases of felony-murders and the lack thereof in stranger murders (Cochran & Chamlin, 2000).

Sorenson, Wrinkle, Brewer, and Marquart (1999) conducted a monthly time-series analysis of murder and execution patterns for Texas between 1984 and 1997. The use of Texas for this particular study was noteworthy because that state had more executions than any other state during that time period, and it allowed the authors to assess the importance of frequent executions to the general deterrent potential of the death penalty. The authors' findings of a statistically insignificant increase in murder rate

and a very slight decrease in rates of felony murder associated with an increase in monthly executions led them to conclude that there is no evidence that the death penalty deters murder in general or felony murders specifically (Sorenson et al., 1999). The fact that the decrease in rates of felony murder was only very slight is particularly important. Felony-murder differs from other types of murder because the offender comes into the felony situation knowing that lethal force might be necessary. As such, one can assume that those who commit murder during the commission of another felony likely engaged in some kind of rational decision making about what they might do if the situation elevates to the degree that lethal force is necessary (Cochran & Chamlin, 2000). Because of this, it seems logical that one who commits felony-murder may be more affected by the threat of receiving the death penalty since such individuals would likely spend time considering the possible scenarios and consequences of committing a felony.

While the use of state-level time-series data in the aforementioned studies is useful in that it addresses the problem of aggregation bias found in national-level studies, there are still some drawbacks to the interrupted time-series design employed in studies looking at media publicity for executions. History effects, for example, may be the most serious threat to validity in studies of this nature. Because studies using an interrupted time-series design are typically carried out over a number of years, it is very likely that some additional variable(s) other than the treatment (in these studies, exposure to media publicity for executions) is responsible for the findings (Shadish et al., 2002). So, while numerous researchers have found evidence of a brutalization effect of media publicity for executions, this finding should be taken with caution because of the possibility that some

other highly publicized event affected the homicide rate during the time in which it was being examined.

Additionally, a shortcoming of the interrupted time-series studies is that, by using official police records or public health data from coroners or medical examiners, estimates of the murder rate includes all types of murder, not just capital murder. This is problematic in a study of the general deterrent impact of the death penalty because this sanction is primarily meant to deter potential capital murderers, not all potential murderers (Peterson & Bailey, 2003). While it is difficult to effectively identify and count capital murders in official records, some researchers have attempted to do this to address the possibility that only capital murderers are deterred by the threat of death (Bailey, 1982; Bailey & Peterson, 1987; Bailey & Peterson, 1994).

Analyses of Capital Homicides

For the purposes of this type of research, it makes sense to examine police killings as prosecutors typically pursue a death sentence in such cases, and a number of researchers have used this strategy. While the idea that those murderers who are most likely to receive the death penalty will be the most likely to be deterred by the threat of the death penalty makes sense, results of this type of research indicate that police officers in death penalty states are no less likely to be killed than police officers in non-death penalty states (Bailey, 1982; Bailey & Peterson, 1987; Bailey & Peterson, 1994). For instance, Bailey (1982) examined the relationship between annual police homicide rates per 1,000 police officers and the certainty of execution for murder. The author also included proportions of urban and black population and rates of poverty and unemployment as control variables to manage for the effects of these on the outcome.

Bailey (1982) found that neither the legal status of the death penalty nor the number of executions had an effect on the number of police killings over a 10-year period.

Taking a slightly different approach to the question of the death penalty and police killings, Bailey and Peterson (1987) examined the impact of the reinstatement of the death penalty during the post-*Furman* period, finding that the return to the death penalty had no impact on the number of police homicides. More recently, Bailey and Peterson (1994) conducted a national time-series analysis of police killings for the years 1976 through 1989. Similar to their previous findings, Bailey and Peterson (1994) found no indication that police officers were safer in jurisdictions that had the death penalty.

Cochran, Chamlin, and Seth (1994) also attempted to determine the general deterrent impact on capital murders in particular by examining killings involving strangers versus those involving non-strangers. Killings involving non-strangers are often felony-murders because of the fact that, when an individual takes the life of someone with whom they have a previous relationship, premeditation is normally present, whereas killings of strangers often result from an argument or some other situation involving little forethought about the commission of the crime. In other words, those who kill a non-stranger are much more likely to have premeditated the murder than is someone who kills a stranger. The authors performed an interrupted time-series analysis with weekly data from Oklahoma's Supplemental Homicide Reports (S.H.R.) between January 1989 and December 1991. Analyses were conducted for the total level of homicides as well as homicides disaggregated into felony murder (non-stranger homicide) and stranger homicide, and the authors found no evidence of a deterrent or brutalization impact for

criminal homicides in general and no deterrent effect of the death penalty for felony murders in particular (Cochran, Chamlin, & Seth, 1994).

Studies of this third type are important in that they shed some light on the question of how the death penalty might affect the rate of capital murders in particular. This is especially noteworthy because the death penalty is typically reserved for capital murderers and, thus, is only meant to deter that type of murderer (Peterson & Bailey, 2003). However, it is important to note that studies of this type tend to suffer from some of the same shortcomings as those discussed previously. Because most studies of this nature employ an interrupted time-series design, they suffer from the problems typically associated with this design. For example, the aforementioned studies all take place over several years. As such, the possibility that some event in the community other than the existence of the death penalty impacted the number of police killings cannot be ruled out.

Likewise, the authors' use of official records could present problems in these studies because of the potential for missing, lost, misreported, or incorrectly recorded data (Shadish et al., 2002). This concern may be particularly salient to the present type of study because of the difficulty with which the data are examined and translated to determine which murders qualify as capital murders. While these concerns are important and should be taken into consideration, it should also be noted that studying only capital homicides is a useful variation on the previously mentioned studies and should be considered for future research to expand upon existing research regarding the general deterrent impact of the death penalty.

While it is true that a few studies of the general deterrent impact of the death penalty have produced results consistent with the deterrence hypothesis, those results

should be taken with caution. Scholars examining these studies have pointed out a number of methodological shortcomings, including problems with aggregation error, failure to include important independent variables, and data collection issues (Bailey & Peterson, 2003; Lempert, 1983; Passell, 1975; Passell & Taylor, 1977). These and other issues discussed previously make any conclusions about the death penalty as a general deterrent tenuous (Berk, 2005). As a close look at the research examined here shows, the strongest conclusion that can be made about the death penalty as a general deterrent is that the evidence to support this claim is weak.

Cost

While there does not appear to be an uncomplicated answer to the question of the death penalty as a deterrent, other issues surrounding death penalty support are more straightforward. One reason that death penalty supporters cite for their position on the penalty is that the death penalty is cheaper than life imprisonment (Gallup, 2003). This raises the cost-benefit question of the death penalty, which is whether the imposition of the death penalty on an individual is cheaper than the confinement of a person in prison for life (Bohm, 1987). While it makes sense that keeping an individual alive in prison until he or she meets a natural death would be much more expensive than simply putting that person to death at an earlier age, the reality is counterintuitive. Research comparing the cost of the death penalty to the cost of life imprisonment has proven that the death penalty is much more costly than life imprisonment (Bohm, 1987; Costanzo, 1997; Ellsworth & Gross, 1994; Horwitz, 1973; Lanier & Acker, 2004). The cost of life imprisonment is extremely high at about \$ 750, 000 to \$1,100,000 per prisoner. However,

the cost of sentencing an individual to death is much higher (Bohm, 1987; Costanzo, 1997; Ellsworth & Gross, 1994; Horwitz, 1973; Lanier & Acker, 2004).

Studies have indicated that jurisdictions that maintain the death penalty spend more money than those that have life imprisonment as the most severe penalty. Death penalty trials in California cost six times as much as non-capital murder trials, and it has been estimated that California taxpayers could save \$90,000,000 per year by abolishing the death penalty in the state. Similarly, the Department of Correctional Services in New York calculated that reinstatement of the death penalty would cost the state \$118,000,000 per year (Costanzo, 1997). And, state budgets are not the only ones suffering due to the existence of a death penalty system. Capital trials are so taxing on county budgets that they have brought some localities to the brink of bankruptcy (Lanier & Acker, 2004).

It is clear that maintaining a system of capital punishment is much more expensive than retaining life imprisonment as the most severe punishment. No systematic study has come to a contrary conclusion. The question that does remain, however, is what exactly makes the death penalty more costly than life imprisonment.

The high cost of pursuing a death sentence begins to add up even before the case goes to trial. The jury selection process takes about five times longer in capital cases than in non-capital cases (Costanzo, 1997; Lanier & Acker, 2004). This is for a number of reasons. A jury pool for a capital trial needs to be much larger because attorneys are permitted to excuse more jurors than usual for no stated reason, and, additionally, attorneys are given a great deal more freedom in questioning of potential jurors. Also, it is very difficult to find enough people who are willing and able to commit the time necessary to participating in a lengthy murder trial (Costanzo, 1997). In a capital trial, it

is necessary that jurors be “death qualified”, which means that, to sit on a capital jury, a person must be willing to consider both death and life imprisonment as punishment. Jurors who do not meet this standard are not permitted to serve on a capital jury (*Wainwright v. Witt*, 1985). Because potential capital jurors who are not willing to consider both punishments can be dismissed, the amount of time that it takes to find a sufficient number of jurors is increased (Lanier & Acker, 2004). Additionally, capital cases usually involve the filing of two to six times as many pre-trial motions as non-capital cases (Costanzo, 1997).

At trial stage, the death penalty becomes even more costly. Investigations in capital cases take three to five times as long as non-capital murder investigations, increasing the amount of money necessary to pay attorneys. Similarly, due to the huge workload of defense attorneys in capital cases, it is not uncommon for jurisdictions to require the appointment of two defense attorneys in such trials (Costanzo, 1997; Lanier & Acker, 2004). Also contributing to the high cost of capital trials is the fact that the prosecution and defense both must prepare for two hearings. Capital trials are bifurcated, which means that the guilt/innocence trial is separate from the penalty hearing. If a capital conviction is secured during the guilt or innocence phase of the trial, a penalty trial must be held. Preparation for two trials compounds investigation time, the number of expert witnesses that must be consulted, and the amount of time it takes attorneys to prepare (Lanier & Acker, 2004).

The sentencing of an individual to death also contributes to the cost of the death penalty. It is necessary to pay for the maintenance and operation of a death row (Costanzo, 1997; Lanier & Acker, 2004). Those sentenced to death are almost always

incarcerated in segregated, high-security cells and remain under intensive supervision for, on average, ten years prior to being executed. Because the execution of an individual is irreversible, the system must ensure that as many precautions as possible are taken to avoid a wrongful execution. This comes in the form of a number of appeals and post conviction petitions that are guaranteed to people sentenced to death. These appeals and petitions can take many years to exhaust, which results in most capital convicts spending many years on death row. In addition to taking a lot of time, post-conviction appeals of capital cases cost an inordinate amount of money, with the estimated cost of appealing a single capital case between \$170,000 and \$219,000. Finally, while it is only a small portion of the total death penalty bill, the cost of building, maintaining, and operating the execution chamber is also incurred (Costanzo, 1997).

It is clear that a great deal of money is spent on capital trials that result in capital convictions; however, it must also be noted that the immense price of a capital trial is also incurred when a capital defendant is acquitted or sentenced to life in prison. Approximately three of ten capital cases end with a sentence of death for the defendant (Costanzo, 1997). This means that the majority of capital cases do not end with a sentence of death, and many end in a sentence of life imprisonment. When an individual is tried in a capital trial, but the resulting sentence is life imprisonment, the high price tag of life imprisonment is added to the already immense cost of the capital trial (Costanzo, 1997). Additionally, later judicial review results in as many as two-thirds of capital convictions or sentences being vacated. The result is that most capital defendants end up serving lengthy prison sentences, even though lots of money was spent pursuing a sentence of death (Lanier & Acker, 2004).

Though it is painful to think about the total fiscal cost of maintaining a system of capital punishment in the United States, what is more excruciating are the opportunity costs of retaining the death penalty. Opportunity costs are the value of what might have been purchased if the decision to purchase the death penalty had not been made. In other words, the astronomical amount of money that is spent each year to maintain our system of capital punishment could have been spent on a number of other things (Costanzo, 1997). For example, the money could have been spent on evidence-based crime prevention programs or early intervention and education programs, which would likely produce more successful results in the fight to decrease crime rates than does the implementation of the death penalty. It is clear that the fiscal cost, as well as the opportunity costs, of maintaining the death penalty in the United States is significantly greater than the cost of life imprisonment.

Incapacitation

In spite of the excessive cost of maintaining the death penalty in the United States, the majority of society continues to support the penalty. Additionally, while many citizens do not realize that our system of capital punishment is so costly, some individuals who are aware of the cost continue to support the penalty for other reasons. The final of the four justifications that is often cited for death penalty support is incapacitation. In regards to the death penalty, incapacitation generally refers to “the belief that executing convicted murderers will prevent them from killing again” (Bohm, 1987, p. 389). In other words, some people feel that the maintenance of the death penalty is necessary to ensure that free citizens will not be harmed at the hands of a convicted murderer (Paternoster, Brame, & Bacon, 2008). At the heart of this issue is the fact that

most people do not believe that a sentence of life imprisonment truly means that an offender will be imprisoned for the rest of his or her natural life, even in those states that impose life without parole sentences (Ellsworth & Gross, 1994).

If people believed that criminals sentenced to a term of life imprisonment would actually spend the rest of their lives in prison, it is likely that many people would prefer this sanction to the death penalty. Research has indicated that, when asked if they prefer the penalty of life without parole (if the offender was guaranteed to spend the rest of his or her life in prison), people generally favored this penalty to the death penalty. Essentially, people want to be certain that murderers never have the opportunity to victimize anyone else outside of prison (Ellsworth & Gross, 1994). In general, society believes that the best guarantee for protection against vicious murderers comes in the form of executions. It is commonly believed that, if we do not execute convicted murderers, we take a risk that the individual may be paroled or may escape from prison and kill again. Additionally, there exists a concern that, even if a murderer is imprisoned for the rest of their life and never reenters society, it is possible that they might instead victimize a correctional officer or another inmate within the prison (Paternoster, Brame, & Bacon, 2008).

It seems reasonable that people are afraid of being victimized by a convicted murderer, but evidence regarding the recidivism rates of convicted murderers does little to justify this fear. First, it is not likely that an individual who has been sentenced to life imprisonment will escape from prison or kill again while incarcerated. While cases like that of convicted murderer Charles Thompson, who escaped from custody during a court hearing in Houston, Texas, prove that it is possible that a convicted murderer could kill

again, such cases are not the norm (Paternoster, Brame, & Bacon, 2008). Likewise, research has shown that murderers are usually first-offenders and are among the least likely of felons to recidivate if released on parole (Horwitz, 1973; Paternoster, Brame, & Bacon, 2008).

Marquart and Sorenson (1988) took advantage of the unique opportunity provided by the *Furman v. Georgia* (1972) decision to determine the likelihood that convicted murderers would victimize again if not executed by the state. The authors examined the institutional and post-release behavior of 47 *Furman* inmates in Texas between 1973 and 1986. These inmates had been sentenced to death but, as a result of *Furman*, had their sentences commuted to life imprisonment. Prior to the release of these prisoners into the general prisoner population, prison officials and clinicians claimed that they were excessively dangerous and that their release into the general prisoner population would pose a risk to other inmates and correctional officers within the facility. The behavior of these inmates was compared to that of a cohort of like violent offenders who had not been sentenced to death. Results of this study indicated that the *Furman* inmates committed few serious rule infractions and did not victimize other prison inmates or staff. Additionally, of the 31 *Furman* inmates who were eventually released on parole, only one committed a new homicide. These findings indicate that the execution of these 47 individuals would not have provided a significant amount of protection to society since the vast majority of these murderers failed to commit another murder within the prison or in the community.

Bearing in mind cases like that of Charles Thompson, it must be acknowledged that the death penalty is better than life imprisonment at preventing murders. However, as

was evident in the cases presented above, the execution of convicted murderers does not always result in a great deal of protection for society since it is unlikely that those individuals would have murdered again. Additionally, the idea of incapacitation as justification for the death penalty is problematic for other reasons. Whether or not the death penalty stops murderers from killing again, the fact remains that the death penalty is often applied in an arbitrary and discriminatory manner, and the result can be the execution of an innocent person (Bohm, 1987; Paternoster, Brame, & Bacon, 2008). This and other problems in the administration of the death penalty further complicate matters of public support. In the next section, wrongful capital convictions and racial and socioeconomic discrimination in the application of the death penalty will be discussed specifically. As research has indicated, these problems tend to have the most potential to alter individuals' death penalty attitudes (Bohm, 1989; Bohm, Clark, & Aveni, 1991; Bohm & Vogel, 1994; Sandys, 1995). As such, a discussion of the extent of these problems is essential to the present study.

Problems in the Administration of the Death Penalty

Wrongful Convictions

Possibly the most disturbing of mistakes that can be made in the administration of the death penalty is a wrongful conviction, which is defined as the arrest, prosecution, trying, conviction, imprisonment, or execution of an individual who is factually innocent of the crime in question. Wrongful conviction has the potential to impact individuals convicted of any crime, not just capital crimes. In considering all such wrongful convictions, they typically come to light with the occurrence of exoneration. Exoneration occurs when a defendant is declared not guilty of a crime for which he or she has

previously been convicted (Gross, Jacoby, Matheson, Montgomery, & Patil, 2005). Prior to the late 1980s, exonerations of wrongfully convicted individuals were relatively infrequent. However, since 1989, exonerations have become alarmingly commonplace. While a national registry of exonerations does not exist, research has indicated the occurrence of as many as 340 exonerations between 1989 and 2003, with 144 of the wrongfully convicted cleared by DNA evidence (Gross et al., 2005).

While exonerations occur in non-capital cases as well, they are particularly common in capital cases. Research indicates that exonerations from death row are more than twenty five times more frequent than exonerations for others convicted of murder and more than one hundred times more frequent than for all other imprisoned felons. Early research looking specifically at wrongful conviction in capital cases illustrates the consistency and gravity of this problem. Bedau (1964) examined capital cases decided between 1893 and 1962 and identified eight cases of wrongful conviction in which innocent people were executed. Similarly, Bedau and Radelet (1987) found that, over the past century, more than 350 individuals have been wrongfully convicted of crimes potentially punishable by death and, of those cases, 116 resulted in a death sentence with 23 of those resulting in a wrongful execution.

It is theorized that the frequency of wrongful convictions and exonerations of capital defendants is a result of one of two things. Wrongful convictions might be more likely in capital cases due to the high pressure to obtain a conviction. Such pressure is likely to influence police and prosecutors to take shortcuts and do shoddy work to obtain an arrest and conviction in a case. This possibility is enhanced by recent estimates, which reveal that the kind of serious error that could lead to a wrongful conviction may be more

likely in capital cases. Research has shown that more than two thirds of all death sentences imposed since 1972 have been reversed on appeal or in post-conviction hearings (Hoffman, 2005). While a reversal is not always indicative of a wrongful conviction, such a high number of reversals contributes to the concern that the United States' death penalty system is failing to produce, and may be incapable of producing, consistent substantive results (Hoffman, 2005).

It is also possible that exonerations are more common in capital cases because evidence leading to exoneration is more likely to be discovered in a capital case. Capital cases typically call for a high level of attention in review due to the fact that an individual's life is at stake, and, thus, the discovery of a wrongful conviction is more likely. Whatever the cause for discovery of wrongful conviction in capital cases, it is clear that such a high rate of exoneration of death-sentenced defendants raises serious questions about our system's potential to produce accurate results in capital cases (Gross et al., 2005).

Heightening concern about the issue of wrongful convictions has influenced some politicians to take action to curtail the execution of innocent men and women. For example, former Illinois Governor George Ryan, after coming to the realization that innocent people were being sentenced to death, implemented a moratorium on death sentences in 2000 and subsequently emptied Illinois' death row in 2003 (Hall, 2005). The moratorium in Illinois has been extended by current Illinois Governor Pat Quinn, and three states (California, Delaware, and Maryland) recently declared moratoriums to allow for research and possible improvement of the death penalty system. Currently, eleven states have proposed legislation to abolish the death penalty, in part, because of the

possibility of wrongful capital convictions. In March 2009, New Mexico Governor Bill Richardson signed the bill abolishing the death penalty in that state, citing known instances of wrongful conviction as part of his motivation (Death Penalty Information Center, 2009). Likewise, in 2004 Massachusetts Governor Mitt Romney assembled the Massachusetts Governor's Council to determine the necessities for reforming the death penalty and preventing the occurrence of wrongful convictions (Warden, 2005).

The flurry of recent legislative activity regarding the death penalty indicates that some of our politicians and lawmakers are concerned about the United States' death penalty system, and public polls show that they are not the only ones who are concerned. One Texas poll indicated that respondents, although supportive of the death penalty, lack confidence in its use and would support a moratorium on executions (Vollum, Longmire, & Buffington-Vollum, 2004). Similarly, a recent National Death Penalty Information Center poll showed that 58 % of those polled support a moratorium on the death penalty while the process undergoes careful analysis (Dieter, 2007). In a country built upon the ideals of freedom, due process, and civil liberties, all of us should be concerned about a system that fails to meet these ideals.

Racial Disparity and Discrimination

While the wrongful conviction of a capital defendant is possibly the most disconcerting problem related to the administration of the death penalty, the idea of an unfair and arbitrary death penalty system is also worrisome. Concern about fairness in the application of the death penalty is not new. Such concern was the foremost reason that the death penalty was abandoned in the 1972 *Furman* decision, which will be discussed in greater detail in a later section of this literature review. Within this decision, the

Supreme Court ruled that existing death penalty statutes were applied in an arbitrary and capricious way, opening the door for a great deal of racial discrimination. Justice Potter described the degree of arbitrariness by likening the chance of being sentenced to death to that of being struck by lightning. After the *Furman* decision, effort was made to reduce arbitrariness in the application of the death penalty by requiring that capital trials be bifurcated, thus introducing a separate penalty phase to the trial during which the prosecution and defense can present evidence of aggravating and mitigating factors to the jury. This process was meant to ensure that juries were able to make an appropriate and impartial decision about whether the circumstances of a particular case warrant a sentence of death. Ideally, this process would eliminate the randomness of capital decisions and ensure that racial discrimination would not come into play (Miller-Potter, 2005).

However, a great deal of research done in the time since these changes were made to death penalty statutes across the country indicates that racial disparity and discrimination continue to be serious problems, particularly for African American defendants. Before moving into a discussion of some of these studies, it is important to understand the difference between racial disparity and racial discrimination. Racial disparity refers to a numerical difference in use of the death penalty based upon race (Bohm, 1994). It is clear that there has been a racial disparity in the implementation of the death penalty in the United States for many years (Bohm, 1994). The percentage of African American capital defendants is greater than the percentage of African Americans in the general population. To be precise, African Americans make up 41.7 % of the death row population (Death Penalty Information Center, 2009), while only accounting for

about 12.8 % of the general population, according to the U.S. Census Bureau's State Population Estimate of 2007 (Microsoft, 2009). While evidence of racial disparity in the implementation of the death penalty is indisputable, it must also be noted that such a disparity is not problematic if it is the result of relevant legal factors. For example, if a particular racial group commits a greater proportion of capital murders, a disparity in death penalty sentences for that group would be expected. Disparity only becomes problematic when extra-legal factors are brought into the equation.

Thus, the existence of racial disparity does not necessarily prove the existence of racial discrimination. Racial discrimination refers to the purposeful imposition of the death penalty on persons because of their race and not because of, or in addition to, legitimate sentencing considerations. While intentional racial discrimination on the part of prosecutors, judges, or jurors can be extremely difficult to prove, existing evidence indicates that the death penalty tends to be administered in a discriminatory fashion against African American defendants (Bohm, 1994). Such discrimination appears to work in two ways. First, black defendants are more likely than white defendants to receive the death penalty. Second, there appears to be a trend of victim-based discrimination. This refers to the idea that the murderer of a white victim is more likely to receive the death penalty than is one who murdered a black victim, regardless of the murderer's race (Bohm, 1994). It is important to note here that, because most violent crime is intra-racial and those who kill white victims are the most likely to be sentenced to death, it would seem logical that white murderers should be sentenced to death much more frequently than black murderers, and yet a racial disparity remains.

Many scholars have examined existing racial disparities in death penalty application to determine whether disparity appears to be a function, at least in part, of racial discrimination. In looking for evidence of racial discrimination in the administration of the death penalty, scholars have used a variety of methods. Baldus, Woodworth, and Pulaski (1990) examined equal justice in death sentencing after the culmination of *Furman* by examining data from Georgia court and corrections agency records. The authors looked at 156 pre- and 594 post-*Furman* cases that had resulted in a murder conviction and, additionally, analyzed a sample of 1,066 defendants convicted of murder or voluntary manslaughter between 1973 and 1979. Findings of the research indicated that race was a major determining factor in those cases that resulted in a death sentence. Specifically, black defendants and those defendants with white victims were the most likely to receive a death sentence. Within this study, the authors also examined the circumstances of the cases and determined that a large proportion of the death sentences imposed were not in those cases that involved the most aggravating circumstances. In other words, those defendants who received the death penalty, in most cases, were not the most blameworthy and, therefore, the outcome of their cases could likely be attributed to a factor other than the severity of their crime.

Some research has examined the existence of racial prejudice among those most likely to be chosen as jury members in capital cases. As was explained previously, capital juries must be death qualified. As such, those who are permitted to sit on a capital jury are more likely to support the death penalty. And, because those who support the death penalty are likely to be white, the majority of capital jury members are white.

Research examining white support for the death penalty indicates an association between white support for the death penalty and racial prejudice against African Americans (Barkan & Cohn, 1994; Young, 2004). While such research does not necessarily prove the existence of racial discrimination in application of the death penalty, it presents the possibility of racial prejudice as a factor in jury decision-making in capital cases. Clearly, allowing individuals who harbor racially prejudiced attitudes to serve on capital juries is likely to result in unfair results for African American capital defendants. Research by Baldus and Woodworth (1998) alludes to this possibility. Their study regarding defendant race and capital jury decisions showed a consistent inverse relationship between the number of black jurors and the number of death sentences imposed on black defendants. In other words, sentencing outcomes for black defendants were more severe than for white defendants as the number of black jurors decreased and the number of white jurors increased. This presents the possibility that such severe sentences may, at least in part, be a function of racially discriminatory decision-making processes among white jurors.

Another group of researchers examined whether the likelihood of being sentenced to death is influenced by the degree to which an African American defendant is perceived to have a stereotypically black appearance (broad nose, thick lips, and dark skin). Results indicated that African American defendants with stereotypically black appearances are more likely to receive a death sentence when their victim was white. In cases involving an African American defendant and victim, a prediction of death sentencing could not be made based upon the appearance of the defendant (Eberhardt, Davies, Purdie-Vaughns, & Johnson, 2006). This interesting finding alludes to the idea of victim-based

discrimination, which is likely the most common form of racial discrimination found in the administration of the death penalty.

Those studies examining the existence of victim-based discrimination are perhaps the most telling. It has been argued that the interaction between victim and defendant race is one of the most influential factors in the outcome of capital cases (Miller-Potter, 2005). Studies consistently show that those who kill white victims are much more likely to receive the death penalty than those who kill black victims, even when statistical controls for a variety of non-racial factors that may influence sentencing are employed (Baldus, Pulaski, & Woodworth, 1983; Bohm, 1994; Death Penalty Information Center, 2009; Eberhardt et al., 2006; Gross & Mauro, 1984; Lynch & Haney, 2000; Williams, Demuth, & Holcomb, 2007; Williams & Holcomb, 2004).

Baldus, Pulaski, and Woodworth (1983) conducted a landmark study of 2,000 murder cases in Georgia in the 1970s, finding that black defendants whose victims were white were charged with death in 70 percent of cases, while only 15 percent of cases that involved a black defendant and black victim were tried as such. The authors found further support for this conclusion in their 1990 study, which indicated that black defendants who had victimized whites had a 12 percent higher likelihood of being sentenced to death. This finding of harsher punishment for black defendants convicted of murdering white victims seems to be quite common in studies of this nature.

Gross and Mauro (1984) examined data from the S.H. R. of Arkansas, Florida, Georgia, Illinois, Mississippi, North Carolina, Oklahoma, and Virginia between 1976 and 1980 to determine the effects of victim race on the likelihood of death sentencing. Results indicated that the killing of a white victim was more likely to result in a death sentence

than the killing of a black victim. Specifically, large and statistically significant race-of-victim effects were found in Georgia, Florida, and Illinois. The killing of a white victim increased the odds of a death sentence by four in Illinois, five in Florida, and seven in Georgia (Gross & Mauro, 1984).

Similarly, in his study examining post-*Furman* racial disparity and discrimination in capital cases, Bohm (1994) found that black defendants who had victimized whites were advanced to capital sentencing hearings by Georgia prosecutors five times more frequently than black defendants who had victimized other blacks and three times more frequently than white defendants who had victimized blacks. Lynch and Haney (2000) found similar results in mock juror studies. Results indicated that white jurors were more likely to find black defendants suitable for death, particularly when the victims were white.

While the aforementioned studies produce concern about the existence of victim-based racial discrimination in capital cases, a study conducted by Williams and Holcomb (2004) heightens that concern. The authors examined S.H.R. data for Ohio between 1981 and 1994. The authors examined the demographic characteristics of homicide victims to determine the potential interaction between victim race and victim gender in decision-making in capital cases. The authors found that homicides involving white female victims were significantly more likely to result in a death sentence than were those involving any other race/gender combination. Additionally, results indicated that homicides involving black males were the least likely to result in a death sentence (Williams & Holcomb, 2004).

Williams, Demuth, and Holcomb found similar results in their 2007 study, using data from the Baldus, Woodworth, and Pulaski (1990) study to examine the joint effects of victim gender and race in capital cases in Georgia. Specifically, the authors found that convicted murderers of white females were about 14.5 times more likely to receive a sentence of death than were murderers of black males. Additionally, murderers of black males were the least likely to receive a death sentence, even with the introduction of controls for legal and extra-legal factors that could influence the likelihood of a death sentence. The findings of Williams and Holcomb (2004) and Williams, Demuth, and Holcomb (2007) corroborate results of other studies that show victim-based discrimination in capital cases, but they also provide further explanation of how victim-based discrimination might work in conjunction with other victim characteristics.

While it is unlikely that overt racial discrimination is the sole explanation for existing racial disparity in capital sentencing, a plethora of research indicates that discrimination is likely a contributing factor to such racial disparity. Because racial discrimination has no place in a criminal justice system that is meant to provide fair and just treatment to alleged criminals, it is important that this problem be addressed. Likewise, the existence of other forms of disparity and discrimination in application of the death penalty is problematic and should be addressed. Racial minorities are not the only individuals whose numbers are overrepresented in the death machine.

Socioeconomic Disparity and Discrimination

Social class may be even more important than race in determining whether the death penalty is invoked against an alleged criminal (Costanzo, 1997; Miller-Potter, 2005). This is not to say that prosecutors, judges, and juries practice outright

discrimination against individuals of low socioeconomic status. Every defendant has the same constitutional rights, which theoretically should ensure that each defendant has a fair trial with a jury of his peers and legal representation, regardless of their social standing. In reality, however, full use of these and other constitutional rights is not so simple for less fortunate offenders (Costanzo, 1997).

Capital defendants tend to come from the low end of the socioeconomic spectrum, and a lack of money often makes the difference between life and death. The overwhelming majority of those executed between 1977 and 1999 worked in low-paying, menial jobs at the time of the commission of the crime for which they were sentenced to death was committed. Such capital defendants are frequently unable to afford their own private attorney(s) and, therefore, must rely on representation by a public defender or court-appointed attorney (Costanzo, 1997; Culver, 1999; McCoy & Lichtenberg, 1999; Miller-Potter, 2005). While it is true that there are some good, experienced public defenders who would likely do an efficient job in the representation of a capital defendant, having to rely on a state-paid defense presents a number of problems. First is the fact that efficient, experienced public defenders are difficult to come by. Typically, public defender offices are located only in large cities, and many states have no public defenders. Indigent capital defendants in states that do not have public defenders must rely on court-appointed attorneys to prepare their defense. Public defenders and court-appointed attorneys are often the least qualified to handle a case where the defendant's life is at stake (Miller-Potter, 2005).

Public defenders and court-appointed attorneys are normally paid very low wages and must endure extremely heavy workloads. Needless to say, there is not a great deal of

incentive for public defenders to strive for perfection, or even efficiency, in capital cases. Additionally, a public defender or court-appointed attorney who is underpaid cannot possibly prepare a defense equal to that prepared by the prosecution (Costanzo, 1997; McCoy & Lichtenberg, 1999). Prosecutors normally enjoy better pay and are more experienced than public defenders and court-appointed attorneys. They are also able to utilize local police to handle the pre-trial investigative work that defense attorneys must do themselves. Even if the defense is sufficiently experienced and motivated to prepare an adequate defense, a lack of sufficient funding impairs their ability to locate and interview witnesses, gather evidence, and question scientific evidence offered by the state (Costanzo, 1997; Culver, 1999). Countless horror stories can be told about the effects of having to rely on public defenders and court-appointed attorneys in capital cases. Cases in which defenders have come to court drunk, slept through trial proceedings, and neglected to bring up crucial mitigating evidence in the penalty phase are not uncommon and are a capital defendant's worst nightmare, often leading to a conviction and sentence of death (Costanzo, 1997).

As a result of many capital defendants' low rank on the social ladder, they have an increased likelihood of being sentenced to death. Those who can afford a competent defense are least likely to be sentenced to death, while capital defendants represented by public defenders or court-appointed attorneys are more than two times as likely to receive a death sentence (Costanzo, 1997; Miller-Potter, 2005). The result is a sentence given not as a consequence of the circumstances or severity of the crime in question, but due to the social and financial status of the defendant.

Wrongful convictions, as well as racial and socioeconomic disparity and discrimination in the application of the death penalty, have created much concern about the efficiency, and even the constitutionality, of the ultimate punishment. These issues, as well as accurate information about the general deterrent impact and cost of the death penalty, are essential to the formulation of an opinion about the death penalty. As will be detailed in the next chapter, death penalty opinions are rarely informed in this way, and one important Supreme Court decision was partially based upon this fact as well as the importance of promoting more informed death penalty opinions.

CHAPTER III

SUPREME COURT CASES AND ATTITUDES

Furman v. Georgia

Many Supreme Court cases have examined the constitutionality of the death penalty. While some were decided in the latter part of the 19th century and early part of the 20th century (*Wilkerson v. Utah*, 1898; *In re Kemmler*, 1890; *Powell v. Alabama*, 1932; and *Louisiana v. Resweber*, 1947 to name a few), many cases have come before the Court more recently. Beginning in 1968 “the legal assault on the death penalty’s constitutionality accelerated” (Bohm, 2007; p. 35). According to Bohm (2007), the issues that the Court has examined in the period since 1968 have focused on the new death penalty statutes, and some of the issues that have been considered include, who may or may not be executed (*Ford v. Wainwright*, 1986; *Perry v. Lynaugh*, 1989; *Atkins v. Virginia*, 2002; *Roper v. Simmons*, 2005); the appellate process (*Barefoot v. Estelle*, 1983; *Antone v. Dugger*, 1984); and effective assistance of counsel (*Strickland v. Washington*, 1984; *Burger v. Kemp*, 1987). While these and other cases are important and have helped shape today’s death penalty statutes, a thorough discussion of these cases is beyond the scope of this literature review.

Within this chapter, the case of *Furman v. Georgia* (408 U.S. 238, 1972) is thoroughly discussed as that decision contains the Marshall hypothesis on which this study is based. Next, *Gregg v. Georgia* (428 U.S. 153, 1976) is briefly discussed since this case overturned the *Furman* decision but failed to address the issues with the death penalty that were outlined in *Furman*. Finally, because the Marshall hypothesis deals with the idea of public attitudes about the death penalty and how such attitudes are

formed, a discussion of the structure of attitudes and attitude change is provided so that a better understanding of death penalty attitudes and their changeability can be achieved.

The series of cases, which became known as *Furman v. Georgia* is perhaps one of the most important in death penalty history. Petitioner Furman, along with petitioners Jackson and Branch, claimed that imposition of the death penalty in their cases constituted cruel and unusual punishment and, therefore, was in violation of the Eighth and Fourteenth Amendments to the United States Constitution. Twenty six year old Furman, a black man, was convicted in the shooting death of a man into whose home he had broken. Furman had only a sixth grade education and, prior to his trial, was diagnosed with several mental disorders including Mental Deficiency with Psychotic Episodes. In spite of his diagnoses, Furman was judged competent to stand trial.

Petitioner Jackson, a twenty one year old black man, received a sentence of death for the rape of a white woman. Jackson entered the woman's home after her husband had gone to work and attempted to rob her. When the woman could find no money in her home, Jackson proceeded to rape the woman while holding a pair of scissors against her neck. Jackson had a prior record, which was determined to be a product of environmental influences. A psychiatrist had declared him free from mental disorders and of average education and intelligence. The third petitioner, Branch, was a black man sentenced to death for the rape of an elderly widow. After raping the woman, Branch stole what little money the woman had and threatened to kill her if she told anyone about the attack. Branch was found to be a borderline mental deficient and had only completed five years of grade school education. These three cases were consolidated and came to be known as the *Furman* case.

The question before the Supreme Court in this series of cases was whether the imposition of the death penalty was in violation of the Eighth and Fourteenth Amendments and, therefore, unconstitutional. Supreme Court Justices Douglas, Brennan, Stewart, White, and Marshall filed separate opinions in support of the petitioners' claims. The arguments made by the Justices in favor of the petitioners were based upon a number of factors. Justice Brennan presented the argument that, while the exact meaning of "cruel and unusual punishment" was not outlined by the Framers of the Constitution and remains elusive, the Clause indicates that a punishment is cruel and unusual if it violates human dignity. Justice Brennan went on to explain four principles by which a punishment can be judged to comport with human dignity.

The first principle states that punishment must not be so severe (mentally or physically) as to be degrading to human dignity and requires that a person not be treated as "nonhuman". With regards to this first principle, the Justices argued that, indeed, the calculated killing of a human by the State involves a blatant denial of that individual's humanity. The loss of an executed person's "right to have rights" and the irrevocability of the punishment, according to Justice Brennan, make the deliberate taking of a human life degrading to human dignity and constitute a violation of the Eighth and Fourteenth Amendments.

The second principle by which punishments can be judged cruel and unusual indicates that the State may not arbitrarily inflict severe punishment. In other words, punishments must not be dealt in an arbitrary, capricious way; rather, they must be applied based upon the facts and circumstances of the case at hand. According to the opinions of the Justices, this principle appears to have been the one most violated by

death penalty practices at the time of this case. The Justices claimed that the infrequency with which the death penalty was applied indicated that death was not an “ordinary” punishment for murder. Further, the fact that a sentence of death was rarely given to a convicted rapist made the punishment even more unusual. Citing the decline in number of executions at a time when the population and the number of capital crimes was increasing, Justice Brennan indicated that the death penalty was applied in an arbitrary and capricious manner. Likewise, the Justices found it problematic that juries decide who gets the death penalty unguided by directions or standards. Such discretion, according to Justice Douglas, allows for selective application of the death penalty. To sum up the Justices’ opinions with regards to the second principle, Justice Stewart compared the chance of being sentenced to death to that of being struck by lightning.

The third principle noted by Justice Brennan deals with what has become known as “evolving standards of decency”. Basically, this third principle states that a severe punishment must not be unacceptable in contemporary society. It is noted in the decision that, even though a punishment may have been acceptable throughout history, it is possible that ideas about what kind of punishment is morally acceptable can change to the degree that a punishment that was once considered to be just and acceptable is no longer seen as such. The Justices cited the increasing humanity of our execution methods and the fact that public executions are no longer deemed acceptable as proof that our country’s standards of decency have evolved past the point of death as a punishment. The Justices also noted that the number of crimes for which one could be sentenced to death had decreased and a number of states had recently moved to abolish the death penalty or

restrict its use to very rare crimes, further indicating that the death penalty was no longer acceptable in contemporary society.

Not only must a severe punishment be acceptable to contemporary society, so too must it be necessary. The final principle introduced by Justice Brennan was that a severe punishment must not be excessive in view of the purposes for which it is inflicted. In other words, it is necessary that the punishment serve a penal purpose that cannot be equally well served by another, less severe punishment. The Justices found fault with the death penalty in regards to this final principle, stating that murderers could be prevented from murdering again if they were simply imprisoned for a life term. Further, it was noted that the death penalty does not appear to serve the purpose of general deterrence any better than does life imprisonment. Aside from citing a lack of evidence of such an effect, Justice Brennan indicated that, in order for the death penalty to be a general deterrent, murderers must be rational thinkers and most are not. Likewise, Justice White pointed out that it is unlikely that the death penalty could serve as a general deterrent since it is used so infrequently. With regards to this final principle, the concurring Justices agreed that there is no evidence that the death penalty is necessary to protect society.

The central arguments in favor of the petitioners in the *Furman* case can be summed up well with the preceding principles. However, a separate argument made by Justice Thurgood Marshall is particularly important to this discussion. Within his opinion, Justice Marshall advanced many of the same arguments as those described above for his contention that the death penalty constitutes cruel and unusual punishment. But, Justice Marshall noted that the real question before the Court that day was not

whether most American citizens, if polled on that very day, would be of the opinion that the death penalty was cruel, but whether they would find it to be cruel in light of all of the information available.

With regards to this assertion, Justice Marshall presented several propositions that have since become known as the Marshall hypothesis. Marshall first asserts that the average American knows almost nothing about the death penalty and the circumstances that surround its application. Among those facts that Justice Marshall thought imperative for citizens to know was that the death penalty cannot be proven as a general deterrent, it is rarely used, released murderers tend to become model citizens, the death penalty costs more than life imprisonment, and the death penalty is often discriminatorily applied to racial and ethnic minorities and those of low socioeconomic status. Justice Marshall also indicated that the public should be informed about the possibility of executing an innocent person. As detailed in the previous chapter, research has borne out the assertions of Justice Marshall. He held that this information was essential to an informed decision on the morality of the death penalty.

Justice Marshall contended that if people were informed about these factors regarding the death penalty and its application, they would find the penalty to be “shocking, unjust, and unacceptable”. However, he also recognized that the public’s desire for retribution was likely to play a significant role in their support for the penalty. While Justice Marshall asserted that retribution for its own sake was not acceptable, he also indicated that those individuals who support the death penalty merely for retributive purposes were not likely to change their opinion even when provided with the facts surrounding the punishment and its application.

While five of the Supreme Court Justices presented an abundance of arguments in favor of the petitioners in this case, Justices Burger, Blackmun, Powell, and Rehnquist did not share these opinions. The Justices presented a number of reasons that they failed to qualify the death penalty as cruel and unusual punishment in this particular case. First, the Justices cited a number of recent Supreme Court cases in which the constitutionality of the death penalty was upheld, and indicated that the disregard for these decisions was brash and indicative of a lack of trust in the authority of these decisions. The Justices noted that these same cases also indicated that contemporary society had not, in fact, “outgrown” the death penalty. Further, the Justices cited public opinion polls, which showed that the majority of respondents indicated that they still support the death penalty. With regards to claims of arbitrariness and caprice, the Justices indicated a lack of empirical support for these assertions, and also claimed that the fact that death sentences were being dealt infrequently only meant that jurors were making more careful decisions, not that decisions were being made arbitrarily. Finally, the dissenting Justices failed to find that the lack of a proven general deterrent impact of the death penalty was unconstitutional, and also noted that, because the Eighth Amendment was not meant to purge law of its retributive elements, retribution was an acceptable purpose of punishment.

Furman held that the death penalty could not be imposed under sentencing procedures that created a substantial risk that it would be inflicted in an arbitrary and capricious manner. Thus, despite the dissenting Justices’ declaration that the court’s ruling that the death penalty should be abolished was improper and was, in fact, a

legislative matter, the 5-4 decision in the *Furman* case placed an official moratorium on the death penalty in the United States.

However, it did not take long for states to begin making changes to death penalty legislation in the attempt to resurrect the sanction. The problem with death penalty statutes, according to the opinions of Supreme Court Justices Stewart and White, was the randomness with which the death penalty was applied. As such, many states tried one of two methods to address this randomness. Some states, including North Carolina and Louisiana, established a list of crimes for which a sanction of death would be mandatory. This step effectively removed all discretion from juries and seemingly addressed the problem of randomness in capital sentencing. Many other states however, adopted the Model Penal Code, which involved the bifurcation of capital trials. Under this system, defendants convicted of capital murder would be sentenced during a separate proceeding, during which the prosecution and defense could present aggravating and mitigating circumstances, which could be considered by the jury. While the Model Penal Code listed eight specific aggravating and mitigating circumstances, states varied in the number and types of circumstances adopted. The bifurcation of capital trials and the use of aggravating and mitigating circumstances in the sentencing phase introduced a system of “guided discretion”. It was believed that this process would help to eliminate the arbitrariness of decision making in capital trials (Banner, 2002). With these legislative changes in place it was not surprising that, four years later, the constitutionality of the death penalty was argued again, this time with very different results. The importance of this case, however, is that the majority opinions focused once again on public opinion.

Gregg v. Georgia

On November 21, 1973 Troy Gregg and his companion Floyd Allen were hitchhiking in Florida in hopes of making it to North Carolina. The pair was picked up by two men, Fred Simmons and Bob Moore. The group stopped at a rest stop outside of Atlanta, where Gregg shot and killed Simmons and Moore with a .25-caliber pistol. Gregg was found guilty on two counts of armed robbery and two counts of murder.

Under Georgia law, Gregg could be sentenced to death if the presence of an aggravating circumstance was established beyond a reasonable doubt. Finding that Gregg committed murder during the commission of a capital felony for the purpose of receiving the victims' money and automobile, the jury sentenced Gregg to death. The conviction and sentence on the murder charge was upheld on direct appeal to the State Supreme Court. The issue before the U.S. Supreme Court, then, was whether the death penalty, in this case, was in violation of the Eighth and Fourteenth Amendments to the United States Constitution. This case, along with *Woodson v. North Carolina* and *Proffitt v. Florida*, came to be known as the *Gregg v. Georgia* case (1976). Supreme Court Justices Stewart, Powell, and Stevens concurred with the State Supreme Court's judgment that the death penalty was constitutional. The Justices' main argument was that the changes made to death penalty statutes since the *Furman* decision (which detailed the death eligible crimes and provided for bifurcated trials) adequately addressed those problems presented in *Furman* and, therefore, the death penalty could again be constitutionally applied.

The Justices indicated that new procedures (including those meant to determine the existence of passion, prejudice, or other arbitrariness in the imposition of the punishment and the presence of evidence to support the jury's finding of aggravating

circumstances, and those providing for the consideration of similar cases to determine if the death sentence was excessive or disproportionate) safeguarded death penalty cases and ensured that the punishment would not be applied in an arbitrary manner and thus was constitutional. Within their opinion, the Justices also reiterated that the abolition of the death penalty was not a decision for the Court; rather, it should be left to legislators.

Supreme Court Justices Brennan and Marshall, in dissenting with the Georgia Supreme Court's decision, also offered many of the same arguments that they had made in the recent *Furman* decision. The death penalty, the Justices claimed, lacked a general deterrent impact, did not respect intrinsic human value, and retribution was not appropriate as the sole justification for the punishment. Finally, Justice Marshall cited a recent empirical study (Sarat & Vidmar, 1976) lending support to his hypothesis that the American public knew little about the death penalty and that, if they were better informed, they would tend not to support it. Despite these minority arguments, the *Gregg* decision effectively put an end to the official moratorium on the death penalty in the United States.

Although the *Furman* decision merely put a temporary end to the death penalty in the United States, the arguments put forth in the opinion of Supreme Court Justice Marshall have since drawn much attention. Marshall's propositions, which have since become known as the Marshall hypothesis, have been the subject of numerous scholarly studies. Prior to a discussion of these studies and their findings, however, it is important to note that public attitudes about the death penalty played an important part in the *Furman* and *Gregg* decisions. The *Gregg* decision, in part, was based on the fact that

majority of the American public holds a positive attitude towards the death penalty, and, as such, it is not the Court's place to abolish the death penalty.

However, it is also noteworthy that, as Justice Marshall stated in *Furman*, attitude change might result if the public became more knowledgeable about the death penalty. The Marshall hypothesis has been the subject of numerous scholarly studies, most of them focusing on how information about the death penalty may impact one's attitudes about, and position on this sanction. Hence, prior to a discussion of the empirical studies and their findings, and because attitudes are important to the current study, it is essential that some time is spent on the examination of literature pertaining to attitudes. Within the next section, some current research regarding attitude structure and change will be discussed in relation to the death penalty in particular.

Attitudinal Research

Many scholars from a variety of disciplines have attempted to gather accurate information about the attitudes that people hold about various subjects. Likewise, many have employed experiments or quasi-experiments in the attempt to assess the possibility for attitude change. The proposed research is no exception. The aim of this research is to gather information about individuals' attitudes towards the death penalty and, subsequently, to assess change in those attitudes after participants have been exposed to information about the death penalty. As such it is important that, prior to a thorough discussion of the present venture, time is taken to examine some of the available information concerning the structure of attitudes and attitude change. A complete discussion of all available attitudinal research would be long and complex and is beyond the scope of this literature review. Thus, focus will instead be placed upon that

information pertinent to a basic understanding of attitude structure and change as related to death penalty attitudes.

Attitude Structure

Prior to a discussion of attitude structure, it is essential to define the term 'attitude'. Put simply, an attitude should be thought of as an association in the mind between an object (in the present case, that object is the death penalty) and a positive or negative evaluation of that object (Bassili & Krosnick, 2000; Conrey & Smith, 2007). While this definition of an attitude is fairly simple, the structure of attitudes within the mind is more complex. While there is not consensus among attitudinal researchers regarding this structure, there have emerged two major lines of thinking about this system. The structure of attitudes, as they are represented in the human brain, are best thought of as a network of nodes, or units, that are interconnected and send signals to one another. This system has been termed the connectionist network, and all current attitude theorizing holds that an attitude is composed of such a network, which is, at the very least, made up of a target entity or issue (for example, the death penalty) and a connected evaluative component (Bassili & Roy, 1998; Conrey & Smith, 2007; Monroe & Read, 2008).

While there appears to be some agreement on the existence of a connectionist network, there are two primary theories regarding the way in which the network functions. The localist view, which has been adopted by many, assumes that there is one node for each particular thing and that those nodes are connected to one another. For example, a localist would surmise that the brain of an individual who is supportive of the death penalty would have one node representative of the death penalty, which would be

connected to the node that holds a positive representation of the death penalty (Conrey & Smith, 2007). Thus, when a death penalty supporter thinks of the death penalty, an association is made between the death penalty and a positive evaluation of the penalty within the brain.

The distributed view of a connectionist network differs significantly from the localist view. The distributed view indicates that no node has a specific meaning such as “death penalty” or “punishment”; rather, meaningful concepts are represented by patterns of activation across many nodes. In other words, an individual’s attitude about the death penalty should not be thought of as a simple association between the “death penalty” node and an evaluation node, but as a pattern of activation that creates meaning. To borrow an example from Conrey and Smith (2007), it is useful to think of nodes as similar to the individual pixels on a television screen. No one pixel holds any particular meaning but, when they are all viewed together, a picture can be seen and meaning can be derived.

Attitude Change

With regards to attitude change, the localist and distributed systems operate in slightly different ways. A localist system, for example, would include a node for the old attitude and a separate node for the new attitude. A distributed system would not contain such separate nodes; rather, it would update the connections among nodes with each experience. In other words, if an individual who was initially supportive of the death penalty has a variety of negative experiences with the death penalty (such as seeing footage of botched executions or reading about wrongful capital convictions) the connections would gradually become more negative and could lead to a change in

attitude. However, even in the event that an attitude is changed, the fact that the old attitude remains and can be remembered by the individual indicates that the attitude may influence thought and behavior under some circumstances (Conrey & Smith, 2007).

While the theories surrounding the structure of attitudes are not as simple as they are presented here, it is only necessary that a basic understanding of this structure is achieved. Since attitude structure can impact attitude change, the achievement of this basic understanding is important to the current research. Just as the physical phenomena involved in attitude change are complex, so too are the methods that may be used to affect attitude change. Attitude change is typically conceptualized as the process that results from getting new information about an object or receiving communication from an external source (Monroe & Read, 2008). Intuitively, this idea makes sense. It seems logical that gaining new information about an object would be the most likely cause of a change in attitude about that object. It makes sense, for instance, that an individual who learns that the death penalty costs a great deal more than life imprisonment would be more likely to change his or her attitude than would an individual who has received no new information about the death penalty.

But, some research has shown that the devotion of thought to an existing attitude in the absence of new information about the object may be sufficient to alter an attitude. This alludes to the possibility that a persuasive attempt may not be essential to changing people's attitudes. However, it is important to note that when individuals devote additional thought to their attitudes, the direction of the change is likely to be polarization. That is, a death penalty supporter who gives additional thought to their position, in the absence of new information, is likely to become more supportive of the

penalty (Monroe & Read, 2008). So, while giving additional thought to an existing attitude in itself may be enough to alter the attitude, it is unlikely that the direction of change would be toward the view opposite of the existing attitude.

The phenomenon of attitude polarization does not appear exclusively in cases where individuals lack new information on the attitude object. Lord, Ross, and Lepper (1979) examined the polarization effect by exposing death penalty supporters and opponents to information confirming and disconfirming their beliefs about the deterrent impact of the death penalty. After reading this information, subjects exhibited evidence of attitude polarization. That is, supporters became increasingly supportive of the death penalty, while opponents became increasingly opposed to the penalty. A likely explanation for this phenomenon is that individuals with strong opinions on such issues are biased in their examination of empirical evidence (Lord, Ross, & Lepper, 1979). For instance, a death penalty supporter is likely to have more confidence in information that is supportive of their own views and is likely to dismiss information contrary to their beliefs. This possibility further complicates one's attempt to understand individuals' attitudes. However, as Lord, Ross, and Lepper (1979) discussed, those who hold strong attitudes about a particular issue are the most likely to examine empirical evidence in a biased manner. The distinction between strong and weak attitudes is an important one, and research has indicated that attitude change may depend a great deal on the strength of the attitude (Bizer & Krosnick, 2001).

Research has shown that some attitudes are very difficult to change, whereas others are more easily altered. This fact is typically attributed to a difference in the strength of the attitude. An attitude that is stronger tends to be more difficult to change

than a weaker one (Bizer & Krosnick, 2001). Some consensus has been reached regarding the exact definition of attitude strength, with most researchers agreeing that it is “that which makes attitudes persistent over time, resistant to change, impactful on processing, and guiding of behavior” (Monroe & Read, 2008, p. 733).

Many researchers have explored the idea of attitude strength and have arrived at a number of conclusions regarding the factors that are important in determining attitude strength. Certainty with which attitudes are held, degree of ambivalence felt about the object, amount of knowledge that bolsters attitudes, importance, and accessibility, to name a few, all affect attitude strength. Generally, an attitude that is more accessible and higher in personal importance and certainty will be more persistent, resistant to change, and influential on the individual’s thinking and actions (Bassili, 1996; Bizer & Krosnick, 2001; Monroe & Read, 2008). For example, a death penalty supporter who deems the issue to be of extreme personal importance and is certain that the beliefs they hold are accurate is likely to hold a stronger attitude toward the death penalty than is an individual who does not find the issue to be of importance and is unsure about the accuracy of their beliefs. The knowledge that these factors underlie attitude strength has allowed researchers to begin to differentiate between strong and weak attitudes. While such a distinction is invaluable in researchers’ attempts to affect change in individuals’ attitudes, it is important to note that disagreement about how some of these factors affect one another and how they should be measured tends to complicate the issue (Bizer & Krosnick, 2001).

Death Penalty Attitudes

While the information discussed above applies to attitudes generally, it is important to this research study to briefly discuss some information regarding death penalty attitudes specifically. With regards to the strength of death penalty attitudes, it is generally agreed that such attitudes are strongly held (O'Neil, Patry, & Penrod, 2004). People typically find their death penalty attitudes to be important and, as was discussed previously, tend to hold their attitudes with enough certainty that they often dismiss evidence contrary to their own beliefs while giving credit to evidence supporting their position, especially in cases where the attitude is quite strong (Lord et al., 1979). Public opinion polls conducted over the past several decades have also indicated fairly stable support for the penalty (Gallup Organization, 2008).

While the strength and stability of death penalty attitudes might seem discouraging in a quest to evaluate opinion change, such conclusions should be taken with caution. Death penalty attitudes do seem to be fairly strong in comparison with some of those attitudes associated with other public policy issues; however, it is important to understand that the amount of knowledge behind an individual's attitude is important (Bizer & Krosnick, 2001). As was noted earlier in this discussion, it is possible that the attainment of negative information or experience related to the death penalty could impact an individual's attitude by updating the patterns among the relevant nodes within the individual's brain (Conrey & Smith, 2007). Thus, it seems plausible that increasing the amount of knowledge that bolsters an individual's death penalty attitude might affect change in the attitude. However, it is also important to remember that individuals who hold extremely strong death penalty attitudes may be inclined to reject evidence contrary

to their own opinion and may be the least likely to exhibit a change in opinion (Lord et al., 2007).

Some recent research conducted by Murray (2003) calls into question the stability of death penalty attitudes. Citing oversimplification of measures of death penalty support, Murray indicated that the overwhelming public support upon which the death penalty rests might be exaggerated. Often, public opinion polls ascertain death penalty support through the use of one question. According to Murray, the complexity of death penalty attitudes calls for a more complex method for measuring such opinions. This need is further illustrated by Zaller (1992) who proposes that most individuals hold numerous attitudes about most issues. If Murray and Zaller are correct in their assertions, then it is possible that public opinion polls measuring death penalty attitudes are not particularly valid and, thus, the true nature and extent of death penalty support is not known. The possibility that death penalty attitudes might not be as stable as public opinion polls show indicates the possibility that these attitudes might not be as strong and, therefore, may be more susceptible to change. So, while the alteration of attitudes is not an exact science and certainly exists within the bounds of some complications, it appears that the possibility exists that death penalty attitudes, especially those held weakly, may be susceptible to change.

Tests of the Marshall Hypothesis

Since Justice Marshall set forth his hypothesis in the *Furman* decision, many scholars have attempted to assess change in death penalty attitudes. To reiterate, Justice Marshall proposed that the American public is generally ignorant about the death penalty and its surrounding issues. Further, Marshall asserted that if the public were fully

informed about the death penalty they would no longer support it. Finally, Marshall contended that the second part of his hypothesis would only prove to be untrue in situations where retribution served as the primary reason for death penalty support. Many researchers have attempted to test one or more of these assertions (Bohm, 1989, 1990; Bohm, Clark, & Aveni, 1991; Bohm & Vogel, 1994; Cochran, Sanders, & Chamlin, 2006; Ellsworth & Ross, 1983; Lambert & Clarke, 2001; Sandys, 1995; Sarat & Vidmar, 1976; Vidmar & Dittenhoffer, 1981; Wright, Bohm, & Jamieson, 1995). Within the next section of this literature review, a summary of these studies will be presented with focus on the findings of the literature as well as the methodological strengths and limitations of the research.

The very first test of Marshall's hypothesis was published in 1976, just four years after *Furman* was decided (Sarat & Vidmar, 1976). Since that initial study, many other researchers have attempted to either partially or fully test the validity of Marshall's claims. While the studies differ from one another in a number of ways, it is important to note that all of these studies have either been experimental or quasi-experimental in nature. As such, each study employed pre- and post-tests measuring death penalty attitudes as well as some exposure to death penalty information as an experimental stimulus. Table 1 presents a summary of the studies that have tested the Marshall hypothesis as well as the results of those studies.

Table 1

Studies Testing One or More Parts of the Marshall Hypothesis

<i>Year</i>	<i>Author</i>	<i>Setting</i>	<i>Sample</i>	<i>Method</i>	<i>Parts of Hypothesis Tested</i>	<i>Parts of Hypothesis Supported</i>
1976	Sarat & Vidmar	Amherst, MA	181 adults	Experimental design	1, 2, & 3	1,2, & 3
2001	Lambert & Clarke	Public university in Michigan	730 college students	Experimental design	1 & 2	1 & 2
1981	Vidmar & Dittenhoffer	University of Western Ontario	39 college students	Nonequivalent Control Group design	2	2**
1989	Bohm	Medium-sized southern university	50 college students	Nonequivalent Control Group design	1,2	1 & 2*
1990	Bohm	Medium-sized southern university	109 college students	Nonequivalent Control Group design	2	None
1991	Bohm, Clark, & Aveni	Medium-sized university in northeastern Alabama	272 college students	Nonequivalent Control Group design	1,2, & 3	1, 2*, & 3
1994	Bohm & Vogel	Medium sized university in Alabama	222 college students	Nonequivalent Control Group design	2	2*
1995	Sandys	College classroom	23 college students	Nonequivalent Control Group design	2	2*
1995	Wright, Bohm, & Jamieson	Medium-sized state university in North Carolina	106 college students	Nonequivalent Control Group design	1 & 2	1 & 2**
2006	Cochran, Sanders, & Chamlin	Large, urban university in west-central Florida	365 college students	One Group Pre-test Post-test design	2 & 3	2 & 3

Marshall Hypothesis

1. The general public has little knowledge of the death penalty and its surrounding issues.
2. If the public were fully informed about the death penalty, they would no longer support it.
3. Those whose support of the death penalty is based primarily on a belief in retribution will continue to support it even when presented with new information pertaining to the death penalty.

** These studies showed changes in death penalty support only when participants were exposed to information about racial discrimination in death penalty administration and wrongful capital convictions.*

*** Decreases in death penalty support in these studies were only slightly significant.*

Experimental Designs

Despite the similarities common to those studies testing the Marshall hypothesis, the studies differ to some degree on the exact type of design that was employed as well as the means by which the death penalty information was disseminated. The earliest study of the Marshall hypothesis, as well as a more recent study, was conducted experimentally and included the use of brief essays about a variety of death penalty topics (Sarat & Vidmar, 1976; Lambert & Clarke, 2001). Sarat and Vidmar (1976) asked a randomly selected sample of adults to complete questionnaires designed to measure a number of variables including death penalty attitudes, death penalty knowledge, and retributiveness. Similarly, Lambert and Clarke (2001) conducted a survey designed to measure college students' crime knowledge, punishment attitudes, death penalty support, and, additionally, gathered demographic information. Both studies included the use of two brief essays pertaining to the death penalty and a control essay, which did not relate to the death penalty. Participants were given time to read the essays and subsequently asked to complete a post-test questionnaire. Sarat and Vidmar (1976) utilized the same questionnaire at post-test, while Lambert and Clarke (2001) employed a questionnaire measuring the degree to which students believed that their death penalty attitudes had changed after reading the essay.

The results of these studies indicated support for Marshall's first claim that the public is ill-informed about the death penalty. With regards to his second assertion, the researchers found some support. While death penalty attitudes appeared to change at post-test in both studies, reduction in death penalty support did not reach significance in most cases. The only exception was the finding of a statistically significant reduction in

death penalty support among those who read the essay regarding the chance of executing an innocent person (Lambert & Clarke, 2001). Sarat and Vidmar (1976) also found support for Marshall's contention that those who support the death penalty for retributive reasons would be less likely to exhibit a reduction in support. Those who scored high on the retribution scale were less likely to change their opinions after reading the experimental essay.

The researchers' use of random assignment was beneficial in that it allowed them to assume that the groups did not differ from one another in some systematic way and made it possible for them to rule out alternative explanations for the results of the study (Shadish, Cook, & Campbell, 2002). In other words, the researchers could more easily assume that the effects measured in the post-test, such as the significant reduction of death penalty support among those who read the innocence essay, were a result of the participants having read that particular essay and not some other factor. However, a number of issues with the research call for the results to be taken with caution.

First, it must be noted that the results of these studies are not likely to be generalizable to other groups of people. Sarat and Vidmar's (1976) sample of adults was taken from Amherst, Massachusetts. It is unlikely that the characteristics of these participants are exactly like those of residents of towns and cities in other parts of the country. It is possible, for example, that individuals from a city in the southern United States hold very different reasons for their position on the death penalty and may have reacted differently had they participated in the study. As such, it is not possible to say that the results of this particular study are generalizable to other parts of the country.

Similarly, the results of Lambert and Clarke's (2001) study cannot be extrapolated far beyond the group of college students included in the sample. However, the fact that the sample consisted of college students from a variety of different majors as opposed to just criminal justice majors improves the utility of the results to some degree. A shortcoming of many studies of the Marshall hypothesis is that some researchers focus primarily on criminal justice majors, who are likely to be much different from students majoring in other disciplines.

A second limitation pertains to the information disseminated to the participants. Sarat and Vidmar (1976) utilized essays about deterrence, the recidivism rate of released murderers, the manner in which the death penalty has historically been administered, and the psychological and physical aspects of execution. While Justice Marshall noted that all of this information is important in forming an opinion about the death penalty, a number of issues that Marshall emphasized as important appear to have been left out of the essays. The essays did not appear to include information about the cost of the death penalty in relation to that of life imprisonment and the possibility of executing an innocent person, for example. Because of this omission, it is unlikely that the participants in this research could be considered "fully informed" after reading the essay. Lambert and Clarke (2001) also failed to include all of the information noted by Justice Marshall; however, because the purpose of their research was mainly to explore the effects of innocence information in comparison with those of general deterrence, this should not be considered a major weakness of their research.

The third, and perhaps most significant, limitation common to these two studies also pertains to the idea of participants being "fully informed" about the death penalty. In

both studies, participants completed the pre-test, read an essay, and then completed the post-test immediately afterwards. While this strategy is convenient and can be done rather quickly, it also presents several problems. Because the essays were brief enough to be read in a short amount of time between the pre-and post-tests, it is not likely that they contained enough information about the death penalty for the reader to be considered fully informed after reading them. Allowing access to more information about the death penalty could possibly have led to stronger results regarding the reduction of death penalty support among participants.

Likewise, it is unlikely that participants had enough time between reading the essay and completing the post-test to reflect upon the issues presented. If given more time to reflect and think about the topics offered in the essay, participants might have come to different conclusions about the death penalty at post-test. However, in light of the attitudinal literature examined in the previous section, it is possible that a longer amount of time for reflection may have caused the polarization of participants' attitudes (Monroe & Read, 2008). As such, it is not clear whether the short amount of time between pre- and post-test should be considered a strength or limitation to this research. It should also be noted that this strategy likely eliminated any treatment diffusion that could have occurred if participants had taken the post-test several days or weeks after reading the essay. The administration of the post-test immediately after the experimental stimulus prevented participants in the experimental group from discussing the information contained in their essay with members of the control group.

Nonequivalent Control Group Designs

The majority of those studies that have tested Justice Marshall's propositions have allowed long-term exposure to death penalty information by way of a college course pertaining to the topic (Bohm, 1989, 1990; Bohm et al., 1991; Bohm & Vogel, 1994; Cochran et al., 2001; Sandys, 1995; Vidmar & Dittenhoffer, 1981; Wright et al., 1995). With the exception of participants in the Bohm (1990) study, students completed questionnaires at the beginning and end of the course, which measured death penalty opinions and death penalty knowledge. Participants in the Bohm (1990) study were asked to publicly commit to a position on the death penalty at the beginning of each class period. Not only did the use of a college course pertaining to the death penalty allow participants increased time during which they could reflect on the issues presented and possibly develop more solid opinions about the death penalty, it also increased the amount of information that could be provided to participants. All of these studies appeared to employ a sufficient amount of information throughout the course to at least ensure that participants were more fully informed than were those who had simply read a brief essay on the topic.

Generally, throughout the duration of the various courses participants in these studies were presented with information about the history of the death penalty, Supreme Court cases involving the death penalty, methods of execution, current death penalty statistics, the general deterrent potential of the death penalty, incapacitation and cost issues, execution of innocents, arbitrariness and discrimination in the administration of the death penalty, retribution, religious arguments, and public opinion on the death penalty. The information was distributed by several means. Textbooks, lectures,

presentations, films, discussions, course packets, guest speakers, and supplemental readings were all used to inform participants about the death penalty and surrounding issues (Bohm, 1989, 1990; Bohm et al., 1991; Bohm & Vogel, 1994; Sandys, 1995; Vidmar & Dittenhoffer, 1981; Wright et al., 1995). Participants in these studies unquestionably came closer to approximating what Justice Marshall termed “fully informed”.

The results of these studies are similar to those found in the research discussed previously in this section. In general, Justice Marshall’s first contention that the public is ill informed about the death penalty was supported (Bohm, 1989; Bohm et al., 1991; Wright et al., 1995). With regards to Marshall’s second assertion, the results are interesting. In general, the studies provide some support for his notion that an informed public would be less supportive of the death penalty. In particular, changes in death penalty support tended to result from information about racial disparities in death penalty administration and the execution of innocent persons (Bohm, 1989; Bohm et al., 1991; Bohm & Vogel, 1994; Sandys, 1995). However, in most cases, decreases in death penalty support at post-test were significant but not overwhelmingly so (Bohm et al., 1991; Vidmar & Dittenhoffer, 1981; Wright et al., 1995). In particular, Bohm (1990) found that death penalty sentiments that have been announced publicly tend to be more resistant to change. With regards to his final claim, findings of several studies indicated that Justice Marshall was correct in stating that those who support the death penalty for retributive reasons would be least likely to experience a change in their attitude after receiving death penalty information (Bohm, 1990; Bohm et al., 1991). Additionally, a surprising finding is that participants’ beliefs about general deterrence tended to remain the same even after

exposure to information about the lack of evidence supporting a general deterrent effect of the death penalty (Bohm & Vogel, 1994).

While this experimental stimulus is superior to that used in the studies discussed previously, there are a number of limitations that are also introduced through the use of this method. The first limitation is a result of the use of nonequivalent control group design in each of these studies. The use of a college course as the experimental stimulus makes the random assignment of subjects to groups impractical. Most students would not take kindly to being randomly assigned to college courses and furthermore, the fact that students must pay to take college courses would render such random assignment unethical. The fact that participants could not be randomly assigned to groups makes it impossible for the researchers to assume equivalence of the groups and difficult to ascertain whether the results of the studies were attributable to the students having taken the death penalty course or to some other, preexisting factor distinguishing the experimental group from the control group (Shadish et al., 2002). For example, a student who enrolls in a death penalty class may have interest in, or some pre-existing knowledge about the topic. However, at least one group of researchers attempted to determine the comparability of the experimental and control groups. Wright, Bohm, and Jamieson (1995) ascertained that the experimental and control groups were similar on a number of factors pertinent to death penalty opinions including gender, race, religiosity, political identity, violent crime victimization experience, and fear of crime.

The use of a college course as a means to disseminate death penalty information also presents a few other problems. The instructor who taught the course in several of these studies indicated his opposition to the death penalty at the beginning of the semester

Bohm, 1989, 1990; Bohm et al., 1991; Bohm & Vogel, 1994; Wright et al., 1995).

Although the authors of these studies noted that the instructor presented both sides of the death penalty argument throughout the course and played devil's advocate when students voiced their own views or opinions about the topic, the possibility that students might have been influenced by the views of the instructor remains. It is possible that the instructor, although trying to remain neutral, focused on opposition to the death penalty more frequently or that students felt compelled to agree with the views of their instructor in hopes of earning a better grade. While effort was certainly made to ensure that this did not occur, it could not be ruled out completely. As such, it is possible that the results of this research are, in part, due to the effects of the instructor and his views on the students and not just to the information the students received about the death penalty (Shadish et al., 2002).

The fact that the participants in these studies were most likely enrolled in other college courses during the time in which they were taking the death penalty class also presents the possibility of spuriousness. The vast majority of the students who participated in these studies were undergraduate students (Bohm, 1989, 1990; Bohm et al., 1991; Bohm & Vogel, 1994; Sandys, 1995; Vidmar & Dittenhoffer, 1981; Wright et al., 1995). As such, it is very unlikely that the death penalty class was the only one in which students were enrolled at the time of these studies. Students would have been learning a great deal in their other courses as well, and it is possible that some of this information pertained to the death penalty and affected their opinion in some way. In particular, those students who were criminal justice majors are very likely to have been imparted with death penalty knowledge in some of their major courses (Bohm, 1990;

Bohm et al., 1991). As such, it is possible that some of this knowledge may have contributed to the some of the changes (or lack thereof) in opinion recorded at post-test (Shadish et al., 2002).

While the use of prolonged exposure to death penalty information in these studies strengthens the research in some ways, it also introduces some potential problems with internal validity (Shadish et al., 2002). Because the death penalty course was extended over several weeks or months, it is possible that the results of the research are due to the occurrence of some important event that affected participants' views of the death penalty. For example there could have been a highly publicized murder in the area, which might have been responsible for the observed outcome of the study. Likewise, it is possible that the participants experienced natural changes, such as growing older, wiser, or more experienced, and this influenced the outcome of the research. It should also be noted that, because the experimental and control groups in these studies were nonequivalent, the likelihood that such history or maturation effects were present is increased (Shadish et al., 2002). As such, spuriousness of the findings cannot be ruled out.

Some final limitations common to several of these studies relates to the potential for generalizability. Because this point was discussed more fully previously in this review, it will only be briefly discussed here. All of these studies, because the experimental stimulus was a college class, included only participants who were college students (Bohm, 1989, 1990; Bohm et al., 1991; Bohm & Vogel, 1994; Sandys, 1995; Vidmar & Dittenhoffer, 1981; Wright et al., 1995). It is likely that college students are different in important ways from the general public and, therefore, the results of this research are not generalizable to other groups of people, such as the elderly or those who

never attended college. Likewise, several of these studies included majorities of criminal justice majors or a great number of criminal justice majors in the experimental group (Bohm, 1990; Bohm et al., 1991; Wright et al., 1995). Again, it is likely that criminal justice majors differ in important ways from students who major in other disciplines, and this does limit the results to some degree. However, it should also be noted that the inclusion of criminal justice students is an important one since such individuals are likely to be in positions to make criminal justice policy decisions in the future and, therefore, knowledge about their views is essential. Finally, because the students in these studies were enrolled in a single course, it is possible that they were not representative of the age range of the college students at the University, which further limits the results of the research.

One-group Pre-test Post-test Design

A recent study was conducted by Cochran, Sanders, and Chamlin (2006) using a death penalty course as a means by which to inform students about the death penalty. Like the studies discussed previously this one included a sample of students, all of whom were criminal justice majors or minors, who took a pre-test about their death penalty views and knowledge and a post-test designed to measure death penalty views and knowledge as well as their level of retributiveness. The death penalty class included the same types of information as the courses in the previous studies, and that information was imparted on the students through the same means. The major difference between this particular study and those discussed previously is that Cochran, Sanders, and Chamlin (2006) used a one-group pre-test post-test design while the other researchers had utilized nonequivalent control group design. Findings indicated that every student who

participated in the course had improved their death penalty knowledge at the end of the class. Additionally, it was found that more than half of the participants' death penalty support decreased at post-test.

Because the present study was conducted in much the same way as those discussed previously, it suffers from the same methodological limitations. However, the fact that the authors used only one group further limits the utility of this study. Because this study lacked a control group, it is not possible for the authors to ascertain whether their findings resulted from the students' exposure to death penalty information as a part of the college course or from some other factor (Shadish et al., 2002). So, while this study seems to provide fairly strong support for Justice Marshall's second assertion, the results should be interpreted with caution. Additionally, it is important to note here that all previous studies of the Marshall hypothesis suffer from one important limitation. No study has included an assessment of attitude strength as a part of the data collection instrument (Bohm, 1989, 1990; Bohm et al., 1991; Bohm & Vogel, 1994; Cochran et al., 2006; Lambert & Clarke, 2001; Sandys, 1995; Sarat & Vidmar, 1976; Vidmar & Dittenhoffer, 1981; Wright et al., 1995). As was indicated by Bizer and Krosnick (2001) the malleability of an attitude typically depends to some degree on the strength of the attitude. Because attitude strength is an important determining factor in the malleability of attitudes, the inclusion of an item designed to assess this factor would aid in the explanation of the findings of these studies.

In general, most studies of Marshall's hypothesis find fairly consistent support for his contention that the general public is ill-informed about the death penalty (Bohm, 1989; Bohm et al., 1991; Cochran et al., 2006; Ellsworth & Ross, 1983; Sarat & Vidmar,

1976; Wright et al., 1995). With regards to his second contention, the support has not been quite as strong. Findings have been inconsistent, with some researchers finding modest decreases in death penalty support after information has been distributed (Bohm et al., 1995; Cochran et al., 2006; Lambert & Clarke, 2001; Sandys, 1995; Sarat & Vidmar, 1976; Vidmar & Dittenhoffer, 1981; Wright et al., 1995) and others finding very little support for his claim (Bohm, 1989, 1990). It is important to note here that, although consistent support for Marshall's second assertion has not been found, more research is needed in this area. With regards to Marshall's third claim, it has been found that those who support the death penalty for retributive reasons are less likely to exhibit a decrease in support after obtaining death penalty knowledge (Bohm, 1990; Bohm et al., 1991; Sarat & Vidmar, 1976).

Follow-up Panel Studies

Because at least some support has been found for Marshall's second claim, several researchers have found utility in testing the long-term stability of informed death penalty opinions. Bohm, Vogel, and Maisto (1993) and Bohm and Vogel (2004) conducted panel studies of participants in a death penalty course several years after its culmination to ascertain whether changes in death penalty attitudes remained stable. Bohm, Vogel, and Maisto (1993) mailed out questionnaires, which included four questions about their opinion of the death penalty to undergraduate students two and three years after their completion of a death penalty course. Findings showed that respondents' death penalty opinions had rebounded nearly to their initial positions. This finding provides little support for Justice Marshall's contention that those who are informed about the death penalty would be less likely to support it. Bohm and Vogel

(2004) conducted a second follow-up approximately ten years after the original study, finding that death penalty support had actually increased since the first follow-up, which showed death penalty attitudes nearly equal to those exhibited by participants in the pre-test of the original study.

It should be noted that there are a number of explanations for these findings. First, it is possible that subjects might have forgotten much of the information that they learned during the initial study. Because as many as ten years had passed, it is very likely that participants were not as “fully informed” in the follow-up studies as they were in the initial study (Bohm, Vogel, & Maisto, 1993; Bohm & Vogel, 2004). Similarly, it is possible that, even if subjects remembered everything they learned during the death penalty course, they may not have believed the information to be true at the follow-up. If respondents no longer believed the information they were given, it would make sense that their attitudes rebounded. Finally, it is certainly possible that some historical or personal event occurred between the first study and the follow-ups that influenced participants’ death penalty opinions.

CHAPTER IV

METHODS

Purpose

Based upon the results of the research summarized in the previous chapter, it is not possible to reach a firm conclusion about the validity of Justice Marshall's hypothesis. In particular, the accuracy of his second claim, that fully informed individuals would not support the death penalty, remains in question. While the majority of the studies provide some support for this argument, in most instances the changes in attitude from pre- to post-test were modest (Bohm, 1989; Bohm et al., 1991; Bohm & Vogel, 1994; Sandys, 1995; Wright et al., 1995). The methodological shortcomings discussed previously further limit the results of the research. As such, additional research, which begins to address these limitations, is necessary if a conclusion is to be made regarding Justice Marshall's hypothesis, in particular his second assertion. The purpose of the present research was to test Justice Thurgood Marshall's three hypotheses relating to the death penalty by using an experimental design. The study also attempted to address some of the limitations of previous research and to further explore the accuracy of the Marshall hypothesis.

The researcher first determined and described students' knowledge of the death penalty. Additionally, the researcher tested Justice Marshall's second contention that individuals who are exposed to information pertaining to the death penalty will be less likely to support the sanction. As previously discussed, some of the earliest studies of the Marshall hypothesis neglected to include information that appears to be most significant in changing death penalty attitudes. For example, a number of the studies did not present

information regarding wrongful capital convictions (Sarat & Vidmar, 1976; Vidmar & Dittenhoffer, 1981), and only one study examined the effect of this factor alone on death penalty support (Lambert & Clarke, 2001). The results of several studies have indicated that information about wrongful capital convictions and racial discrimination in the implementation of the death penalty are the most salient to changes in death penalty attitudes (Bohm, 1989; Bohm et al., 1991; Bohm & Vogel, 1994; Sandys, 1995), and, as such, information pertaining to these two factors was provided to participants in the present study. The researcher also looked at the effects of information about socioeconomic discrimination in the application of the death penalty, the lack of evidence of a general deterrent impact of the punishment, and the cost of maintaining capital punishment on student attitudes toward the penalty.

As discussed more fully below, participants received information about some (or all) of the five factors mentioned above. This strategy was an attempt to isolate the factor that is most important to affecting death penalty attitudes. Additionally, the present study relied upon the use of vignettes as a means of disseminating death penalty information to participants. Previous research has used essays or college courses pertaining to the death penalty. The decision to employ vignettes as a means of disseminating death penalty information was based upon the utility of this method. Vignettes give survey researchers the opportunity to make the stimulus as detailed and concrete as possible, more closely approximating the decision-making situation. Further, this method is thought to provide an increased level of validity and reliability in the measurement of participant attitudes (Alexander & Becker, 1978). It is hoped that the use of vignettes will shed more light on

the various methods that might be used to provide information about the death penalty and the effects of using these different methods on death penalty attitudes.

Additionally, because research has revealed that attitude strength is important to determining whether attitudes might be altered by some outside factor (Bizer & Krosnick, 2001), the strength of student attitudes about the death penalty were examined at pre-test in an attempt to describe the relationship between attitude strength and changes in death penalty support. This step has not been included in previous research and, thus, is important in the attempt to further our understanding of how information may affect death penalty attitudes. Finally, the researcher attempted to determine the accuracy of Justice Marshall's third claim that those whose death penalty support is based primarily on a belief in retribution will be least likely to exhibit change in their death penalty attitudes.

Research Design

This is a quantitative study, which measured and analyzed student attitudes toward the death penalty before and after those students were provided with information about one of five topics pertaining to the death penalty (wrongful capital convictions, racial and socioeconomic discrimination in administration of the death penalty, the lack of evidence of a general deterrent impact of the punishment, and the cost of maintaining a system of capital punishment). Additionally, this study examined the effects of two important factors on the malleability of death penalty attitudes (attitude strength and retributiveness). The present study employed an experimental design, with data being collected at pre- and post-test from randomly assigned experimental and control groups. The use of an experimental design is beneficial because, according to Shadish, Cook, and

Campbell (2002), using a randomized experiment helps the researcher to assume that the control and experimental groups are equivalent, making it easier to conclude that any results seen in the study are due to the experimental stimulus, rather than a pre-existing difference between the groups. As such, the randomized experiment is sometimes referred to as the “gold standard” in research (Shadish et al., 2002). Data was collected using the survey method with a self-administered questionnaire serving as the data collection instrument, the construction of which was informed by Dillman’s (2007) Tailored Design Method (TDM). The selection of a survey methodology in this study was based upon the utility of this method. Not only is a survey an economical and efficient means for collecting data, if done properly, it allows the researcher to make generalizations about large populations from much smaller ones (Dillman, 2007).

Research Questions and Hypotheses

Due to weak and, at times, conflicting results, as well as a number of methodological limitations, it is still unclear whether Justice Marshall was correct in making his assertions regarding death penalty knowledge and public support. Additionally, no researcher has attempted to ascertain the influence that attitude strength might have on the malleability of death penalty attitudes. Thus, it important that Justice Marshall’s hypothesis is subjected to further empirical testing and, also, that the influence of attitude strength on death penalty support is explored. Thus, the present study sought to answer the following five research questions:

1. To what extent are college students informed about the death penalty?

2. Does exposure to information pertaining to the death penalty cause a statistically significant change in support for the penalty among college students?
3. Which (if any) information causes the greatest statistically significant change in support for the death penalty among college students?
4. Is there an association between level of retributiveness and change in death penalty support among college students?
5. Is there an association between the strength of death penalty attitudes and change in death penalty support among college students?

Researchers who have attempted to test Justice Marshall's contention that the public knows little about the death penalty have found fairly consistent support for this notion (Bohm, 1989; Bohm et al., 1991; Lambert & Clarke, 2001; Sarat & Vidmar, 1976; Wright et al., 1995). As such, the following hypothesis was formulated to address the first research question:

Ho (1): Students will have little knowledge of the death penalty at pre-test.

With regards to Justice Marshall's claim that an informed public would not support the death penalty, some research has been supportive of this assertion. However, that support has typically been modest (Bohm, 1989; Bohm et al., 1991; Bohm & Vogel, 1994; Cochran et al., 2006; Sandys, 1995; Lambert & Clarke, 2001; Sarat & Vidmar, 1976; Vidmar & Dittenhoffer, 1981; Wright et al., 1995). Furthermore, several studies have indicated that information about racial discrimination in death penalty administration and wrongful capital convictions are the most likely to affect changes in death penalty support (Bohm, 1989; Bohm et al., 1991; Bohm & Vogel, 1994; Sandys,

1995). Similarly, Lambert and Clarke (2001) found a statistically significant decrease in death penalty support among participants in their study who were exposed only to information about wrongful capital convictions, indicating that this single factor might be of particular importance to levels of support for the death penalty. In consideration of this research, the following hypotheses were formulated to address the second and third research questions:

Ho (2): Those students who were provided with information about wrongful capital convictions will exhibit a statistically significant reduction in death penalty support at post-test.

Ho (3): Those students who were provided with information about racial discrimination in the application of the death penalty will exhibit a statistically significant reduction in death penalty support at post-test.

Ho (4): Those students who were provided with information about socioeconomic discrimination in the application of the death penalty will exhibit a statistically significant reduction in death penalty support at post-test.

Ho(5): Those students who were provided with information about the lack of a general deterrent effect of the death penalty will not exhibit a statistically significant reduction in death penalty support at post-test.

Ho (6): Those students who were provided with information about the cost of the penalty will not exhibit a statistically significant reduction in death penalty support at post-test.

Ho (7): Those students who were provided with information about all five of the factors will exhibit a significant reduction in death penalty support at post-test.

Ho (8): The greatest statistically significant reduction in death penalty support among students who read about only one of the five death penalty factors will be among those students who were provided with information about wrongful capital convictions.

Justice Marshall's third contention, that those whose death penalty support is based primarily on a belief in retribution will be the least likely to alter their opinions, has not been as widely tested as his first two assertions. However, those studies that address this assertion provide support for Marshall's belief (Bohm et al., 1991; Cochran et al., 2006; Sarat & Vidmar, 1976). The following hypothesis pertains to the research question regarding to retributiveness:

Ho (9): Those students whose death penalty support is based upon higher levels of retributiveness will not exhibit statistically significant change in level of death penalty support at post-test.

According to Bizer and Krosnick (2001), attitudes that are strongly held are more difficult to change than are weakly held attitudes. Additionally, research has indicated that those with strong attitudes are more likely to dismiss new information that counters their current beliefs (Lord et al., 1979). This information guided the formation of the hypothesis pertaining to the final research question:

Ho (10): Those students who have strong death penalty attitudes will not exhibit statistically significant change in level of death penalty support at post-test.

Sampling

For the purposes of this research, it was necessary to ensure that the sample was as representative of the university population from which it was drawn as possible. Additionally, because the researcher was interested in the death penalty opinions of all students, not just those majoring in criminology, it was essential that the sample include students from a variety of majors. To satisfy these requirements, a stratified cluster sampling method was used. The sampling frames from which the sample was drawn were lists of course offerings in criminology as well as liberal studies. These lists were stratified based on the typical/designated grade level of the students in the class (e.g. freshman, sophomore, junior/senior) to help improve the representativeness of the sample. A sub-sample of classes was randomly selected from each of these strata with the use of a random numbers table. A random numbers table was generated for each of the strata so that courses could be assigned their order for random selection based upon the table. Each chosen class served as a cluster of students were asked to participate in the study after permission was gained from the faculty member teaching the selected course.

The use of a stratified cluster sampling strategy was essential to improve the representativeness of the sample in this study. By using information available in the university's *Trendbook*, the researcher attempted to ensure that the number of classes selected from within each grade level. For instance, if 20 % of criminology students are sophomores, attempts were made to ensure that 20 % of the students in the criminology sample are sophomores. Liberal studies courses were selected in this same manner.

To ensure that the necessary number of students from each strata were selected, it was necessary to compile lists of criminology and liberal studies courses. Each list was

also stratified based on the typical/designated grade level of the students in the class. Within the criminology department, for instance, freshmen normally take Criminology 101 and 102, while sophomores often take Criminology 205 and 225. Likewise, juniors and seniors typically take Criminology 400 and 401. An appropriate number of courses at each level was selected to help insure the proper proportion of students by grade level and to thereby improve the representativeness of the sample.

The non-criminology sample was drawn in a similar manner. A list of liberal studies courses offered during the semester of data collection was obtained and stratified on class standing. Just as criminology majors normally take certain courses in their major during their freshman year, all students typically take particular courses at various points in their college careers in the effort to satisfy the liberal studies requirements. For example, freshmen normally take English 101, History 195, a Wellness course, and a Fine Arts course while sophomores typically take English 121 and 202. Finally, Liberal Studies 499 is restricted to junior and senior level students. An appropriate number of classes was randomly selected from each of the strata to improve the representativeness of the sample.

Sample Size

To determine the number of cases that were needed to analyze the data in the present study, Cohen's (1992) Power Primer was consulted. With a medium effect size (ES) of .15 expected and the inclusion of twelve independent variables in this study, each sub-sample must contain at least 107 cases. Further, when using multivariate analysis, it is necessary to have at least 30 cases per independent variable (Lewis-Beck, 1980). As such, the researcher attempted to sample 180 students for the criminology sub-sample

and 180 students for the non-criminology sub-sample, for a total estimated sample size of 360.

Survey Instrument

The pre-test survey instrument for this study was designed to obtain participants' attitudes and knowledge about the death penalty, the strength of their death penalty attitudes, their level of retributiveness, and demographic information. The questions were designed to ascertain the effects of the independent variables on the participants' death penalty attitudes. The pre-test questionnaire is provided in its entirety in Appendix A. The experimental post-test was designed to expose participants to information about the death penalty and subsequently measure their death penalty attitudes with the same items used on the pre-test. The control post-test provided participants with a several math problems to complete and then asked them to complete the same death penalty attitude items that were included in the pre-test. An example of an experimental post-test is provided in Appendix C, and the control post-test is provided in Appendix D.

Dependent Variable

Death Penalty Attitude

The items measuring students' death penalty attitudes (see items 1 – 8 in Appendix A) were informed by several questions derived from a questionnaire constructed by Wright, Bohm, and Jamieson (1995), which was designed to measure participants' attitudes and knowledge about the death penalty and to obtain demographic information. The use of this survey as a guide is beneficial because of the authors' inclusion of six questions intended to obtain death penalty opinions. Many survey instruments designed to obtain death penalty opinions base support or opposition solely

on a respondent's answer to a single, general question. For example, participants in Sandys's (1995) study were asked, "What is your attitude toward the death penalty for some people convicted of first-degree murder?"

While the use of a single, general question such as this one provides some insight into participants' support for the death penalty, research has indicated that the level of reported death penalty support decreases with the use of "concrete" and "alternative punishment" questions (Ellsworth & Ross, 1983). Concrete questions involve asking respondents about their level of support in specific, concrete situations. For example, "If you served on a jury in a trial where the defendant, if found guilty, would automatically be sentenced to death, could you convict the defendant?" Alternative punishment questions present respondents with an alternative to the death penalty. For instance, "Would you support an alternative to the death penalty where a convicted first-degree murderer is sentenced to life in prison, without possibility of parole ever?"

Taking such research into account, Wright et al. (1995) included two concrete and two alternative punishment questions in addition to the general questions that had been used in previous research, thus improving the likelihood that accurate information about participants' death penalty support would be obtained. However, for the purposes of the present research study, only one concrete and one alternative punishment item were employed. The second concrete item was eliminated because it asked the respondent to indicate whether he or she would be able to pull the lever that would kill an individual who had been convicted of a capital crime. Although this item gives the respondent a concrete situation to consider, its inclusion is unnecessary because it is not a situation that is likely to occur. Additionally, the second alternative punishment item was not included

due to its similarity to the first alternative punishment item. Because both items were essentially the same, only one needed to be included on the questionnaire. A total of four items were used to measure students' death penalty attitudes (see items 1- 4 in Appendix A). For these items, participants indicated their level of agreement with statements relating to death penalty support by choosing one of the following five responses: "strongly disagree", "disagree", "neither disagree nor agree", "agree", or "strongly agree". For these items, response categories were scored one through five, with one indicating strong disagreement with a statement supportive of the death penalty, three indicating neutrality, and five indicating strong agreement. Item 3, "I support a life without parole sentence as an alternative to the death penalty for a person convicted of first-degree murder" was reverse scored, with five indicating strong disagreement with a statement in opposition to the death penalty and so on. Respondents' scores on all four items were added together to come up with a total death penalty support score between 4 (low) and 20 (high). Death penalty scores between 4 and 9 indicated a respondent with an attitude consistent with a low level of death penalty support, while those with scores between 15 and 20 indicated a respondent with an attitude consistent with a high level of death penalty support. Scores between 10 and 14 indicated a respondent with an attitude that is consistent with an intermediate level of death penalty support.

Independent Variables

Death Penalty Knowledge

Death penalty knowledge was measured with questions derived from the Wright et al. (1995) questionnaire discussed previously. These items were chosen based upon their inclusion of information about the death penalty issues that will be presented to participants as an experimental stimulus (wrongful capital convictions, racial and socioeconomic discrimination in administration of the death penalty, the lack of evidence of a general deterrent impact of the punishment, and the cost of maintaining a system of capital punishment). Participants were asked to respond to 8 factual statements about the death penalty by selecting from the following options: “true”, “false”, or “don’t know” (see items 17 – 24 in Appendix A). Respondents only answered the questions at pre-test. Students’ death penalty knowledge was indicated by the number of correct responses to the knowledge items on the questionnaire. “Don’t know” responses were considered incorrect. The number of correct responses to the death penalty knowledge items was added together to obtain a death penalty knowledge scale ranging from 0 (low) to 8 (high).

Wrongful Capital Convictions Knowledge

Knowledge about each of the five important death penalty issues was measured by several items on the death penalty knowledge questionnaire. Knowledge about wrongful capital convictions was measured with one questionnaire item, “Innocent people have been executed in error in the U.S. in this century.” Students’ knowledge of wrongful capital convictions was determined by their correct or incorrect response to this single item on the questionnaire.

Knowledge of Racial Discrimination in Application of the Death Penalty

The death penalty knowledge questionnaire included two items to measure students' knowledge about racial discrimination in application of the death penalty. The first item pertained to offender-based discrimination, which is the idea that a black defendant is more likely than a white defendant to receive the death penalty. Students were asked to respond to the following statement, "An African American person is more likely to receive the death penalty than a white person for the same crime." The second item on the questionnaire asked respondents about victim-based discrimination, the idea that an individual who murders a white person is more likely to receive the death penalty than is one who murders an African American person. Students responded to the following statement, "The killers of African American people are just as likely to receive the death penalty as the killers of white people." Students' knowledge of racial discrimination in administration of the death penalty was established by the number of correct responses to these two items.

Knowledge of Socioeconomic Discrimination in Application of the Death Penalty

Knowledge about socioeconomic discrimination in application of the death penalty was measured by a single item on the questionnaire. Participants were asked to respond to the item, "Poor people who commit murder are more likely to be sentenced to death than rich people." Students' responses to this single item determined their knowledge of socioeconomic discrimination in administration of the death penalty.

Knowledge of General Deterrence

The final knowledge variable, knowledge of general deterrence, was measured by three items on the questionnaire. The first item pertained to information derived from the comparative studies of the general deterrent impact of the death penalty. Students were asked to respond to the item, “Over the years, states which had the death penalty have shown lower murder rates than neighboring states which do not have the death penalty.” Second, students were asked to respond to an item pertaining to the general deterrent effects of well-publicized executions. The item read, “Studies have shown that the rate of murder usually drops in the weeks following a well-publicized execution.” The third item pertained to the murder rate in the time following the 1972 *Furman* decision. The item read as follows: “After the Supreme Court struck down the death penalty in 1972, the murder rate in the U.S. showed a sharp downturn.” The number of correct responses to these three items established students’ knowledge of the general deterrent impact of the death penalty.

Knowledge of Death Penalty Cost

Students’ knowledge of death penalty cost was measured by one item on the death penalty knowledge questionnaire. Students were asked whether the following statement is true or false: “On the average, the death penalty costs taxpayers more than life imprisonment.” Students’ responses to this single item determined their knowledge of death penalty cost.

Retribution

Retribution was measured by computing a total score for each participant based upon their responses to eight retribution items (see items 9 - 16 in Appendix A). The

retribution items were derived from a survey created by Bohm, Clark, and Aveni (1991). For the first seven items, response categories were scored one through five, with one indicating strong disagreement with a statement supportive of retribution, three indicating uncertainty, and five indicating strong agreement. The final item, “An execution would make me sad, regardless of the crime the individual committed” was reverse scored, with one indicating agreement and so on. Respondents’ scores on all eight items were added together to come to a total retribution score between 8 (low) and 40 (high). Retribution scores between 8 and 18 indicated a respondent low in retribution, while scores between 30 and 40 indicated a respondent high in retribution. Scores between 19 and 29 indicated a respondent with an intermediate level of retribution.

Attitude Strength

Researchers looking to measure attitude strength have done so by measuring a number of constructs, including attitude importance and extremity. It is generally agreed upon that measuring such constructs can help to differentiate between weakly held attitudes and those that are held more strongly (Bassili, 1996). Because the researcher wanted to ascertain the strength of participants’ death penalty attitudes in this study, measures of attitude importance and attitude extremity were used at pre-test to determine the strength of each individual’s death penalty attitude. Separate items designed to measure attitude extremity were not necessary, rather the response categories used for the death penalty opinion items were sufficient to determine the extremity of respondents’ attitudes. For example, a participant who indicated that they “very strongly agree” that they favor the death penalty for a person convicted of murder was judged as having a more extreme attitude than someone who indicated that they “agree” with this statement.

Thus, “very strongly agree” and “very strongly disagree” responses were given an extremity score of 3 while “agree” and “disagree” responses were given a score of 2. The response “neither disagree nor agree” was given an extremity score of 1. The extremity scores from the four death penalty opinion questions were averaged to calculate an overall extremity score.

To measure attitude importance, participants were asked, “Compared to other social issues that are important to you, how important is the death penalty?” (see item 5 in Appendix A). Responses were scored 1 through 5 with 1 indicating “not at all important”, and 5 indicating “very important”. To obtain an attitude strength score, an individual’s overall extremity score was multiplied by their importance score. Thus, attitude strength scores ranged between 1 (weak) and 15 (strong).

Demographic Factors

Demographic characteristics were measured by two of the final three questions on the pre-test (see items 24 and 26 in Appendix A). The decision to place these questions at the end of the survey was informed by Dillman’s (2007) Tailored Design Method. According to Dillman (2007) placing demographic items at the beginning of a questionnaire can be problematic because respondents find them to be uninteresting and often have difficulty connecting these items to the purpose of the study. If respondents find the opening questions on a survey to be boring or irrelevant, they may not be motivated to complete the survey (Dillman, 2007).

The demographic factors measured were sex and age. Historically, opinion polls have indicated that sex is an important variable with regards to death penalty support, with males typically being more supportive of the punishment than females (Bohm,

2003). As such, the inclusion of sex as an independent variable in the present study is important.

Educational Factors

Educational factors were also measured at the end of the pre-test (see items 22, 23, and 25 in Appendix A). Students were asked whether they had previously taken a death penalty course, what their class standing was, and what their major field of study was. It was important to ask students if they had previously taken a death penalty course since having taken such a course would likely influence their level of death penalty knowledge. Additionally, as was mentioned in chapter 3, previous research of this nature has often included a majority of criminology majors, providing little insight into the effects that information might have on the death penalty opinions of students who are not criminology majors. To capture this previously neglected information, both criminology and non-criminology majors were included in this study and, as such, it was necessary to ask respondents to indicate their major on the questionnaire. Respondents were also asked to indicate their class standing on the questionnaire. Because students who are in their senior year of college have obtained more education and, therefore, may have more knowledge of the death penalty or other subjects than a college freshman, it was important that this question be included so that a better understanding of the relationship between death penalty opinions and knowledge can be obtained.

Procedures

Once classes were selected from the sampling frame for inclusion in the study, the researcher emailed the instructor to request to meet with them regarding this study. The researcher then briefly met with each willing professor to describe the study and to

request permission to distribute the questionnaires during class time on two separate occasions (once for the pre-test and once for the post-test). In addition, a letter reiterating the request and purpose of the study was left with each professor with whom the researcher met (see Appendix E). By meeting with each professor personally in addition to providing a formal letter, the researcher hoped that the professors would more willingly allow access to their classes. Once access was granted, administration dates were scheduled and all students present on the administration days were asked for their voluntary participation in the project. The questionnaires were self-administered, meaning that students completed them on their own, without assistance. The researcher made clear the purpose of the study and ensured the students that participation was voluntary and that they would not be penalized if they declined to participate. An informed consent form was attached to the questionnaire and was read aloud by the researcher (see Appendix F). It was made clear that the students' responses would remain anonymous, and students were asked not to include any identifying information on the questionnaire. Questionnaires were then distributed to the students in the classroom.

Due to the nature of the research questions in this study, the researcher needed to be able to match each respondent's pre-test questionnaire with their post-test questionnaire. To accommodate this need, students were asked to place a unique code at the top of their questionnaire. This code consisted of 5 letters and two numbers and was formed by placing, in sequence, the first letter of each of the following: 1) the student's hometown, 2) the student's middle name, 3) the student's mother's first name, 4) the student's high school name, 5) the student's eye color. The numbers at the end of the code represented the student's day of birth. Hence, a code looked like this: KKJKG12.

By using this code, the researcher was able to match participants' pre-tests with their post-tests without asking them for personally identifying information. Because the researcher did not have access to all of the information contained in the code, she was unable to match any one questionnaire with an individual respondent. Students who did not wish to participate in the study were asked to sit quietly until all others completed the questionnaire. Once all students were finished, the questionnaires were placed in a box, and the researcher secured them in a locked office.

Several weeks later, students who participated in the pre-test were asked to complete the post-test questionnaire. Students who did not participate in the pre-test were asked to leave their questionnaire blank and turn it in when all of the participants had completed their surveys. Students were again reminded of the voluntary and anonymous nature of the study and were reminded to write their code at the top of their questionnaire. There were three versions of the post-test questionnaire, which included the same attitude items that were included on the pre-test. The first version included a brief vignette pertaining to one of the following five death penalty topics: wrongful capital convictions, racial and socioeconomic discrimination in administration of the death penalty, the lack of evidence of a general deterrent impact of the punishment, and the cost of maintaining a system of capital punishment (see items 1 – 5 in Appendix B). The second version included a vignette containing information about all five of these topics (see item 6 in Appendix B). The inclusion of a vignette pertaining to all five of the death penalty topics described above was important because it helped the researcher ascertain the influence of all five factors on death penalty attitudes in addition to the effects of each single factor on such attitudes. The third version of the post-test was the control condition and, thus, did

not include a vignette. However, this third version included ten math problems, which students were asked to complete (see Appendix D for the control post-test questionnaire). The purpose of including these math problems was to ensure that all students took approximately the same amount of time to complete the post-test. Since the math problems did not affect students' views of the death penalty, this was an effective control condition to employ for this study. To ensure that students would be randomly assigned to one of the six experimental groups or the control group, the researcher sorted the various post-tests so that every other one was a control and those between were the various experimental post-tests. The researcher then passed the post-tests out to students. Students were instructed to read the vignette or complete the math problems and respond to the questionnaire (see Appendix C for an example of a complete experimental post-test questionnaire). Once all students completed the post-test questionnaires, they placed them in a box, and the researcher secured them in a locked office.

Human Subjects Issues

Every effort was made in planning this study to ensure that all relevant issues were addressed. Participants in this research remained anonymous. The researcher had no way of matching student responses with any identifying information, and the surveys were collected and secured in a locked office immediately after they were completed. Once the data analysis process began, only the researcher and the dissertation committee had access to the data. By participating in this study, students were subject to risk. The topic that students were asked to consider is one that is commonly discussed, and answering questions about their attitudes and knowledge about this topic is unlikely to cause emotional pain to participants. Prior to their participation in this study, students

were informed of its purpose, and no deception was used. Finally, students were ensured that participation in this study was voluntary and that they could choose not to participate without penalty. Additionally, students were informed that they could quit the study at any time if they did not wish to continue. Consent to participate in the study was implied by the participants' completion of the questionnaire. Approval from the university's Institutional Review Board for the Protection of Human Subjects was also received prior to the beginning of this study.

CHAPTER V

ANALYSIS AND RESULTS

This chapter will describe the analysis performed in this study and will present the results. First, frequencies and descriptive statistics for the variables included in this study are presented. Next, the bivariate correlations between the independent and dependent variables are presented. The t-test and one-way repeated measures analysis of variance is presented next. Finally, the results of the multiple regression analysis are presented and discussed.

The analysis presented in this chapter is based upon a sample of 463 undergraduate college students at one mid-sized public university in the Northeast. Using a proportionate stratified cluster sampling method, surveys were distributed to students in 10 criminology classes and 8 non-criminology classes during February and March 2010. A total of 498 students were present during survey administration; however, several students had already completed the survey in another class and were asked not to participate a second time ($n=21$). So, a total of 477 surveys were distributed to students. Additionally, several surveys were returned incomplete or blank ($n=14$). After removing those surveys that were turned in blank or incomplete, the final sample size was 463. However, due to students being absent from class during the post-test, complete data is available for 362 students. Thus, data are presented only for those students who were present for the pre- and post-test.

Frequencies and Descriptive Statistics

Demographic Variables

Table 2 presents the frequencies and percentages of the demographic factors included in the present study. Raw numbers as well as valid percentages are presented for sex and age. The overall sample consisted of 159 (43.9%) females and 203 males (56.1%) males. According to the most recent data available in the university *Trendbook* (2005-2006), 44.7% of students in the student body were male while females accounted for 55.3% of students. The total sample seems to have an overrepresentation of male students, which is partially due to the large sub-sample of criminology students. The criminology sub-sample consisted of 63.6% males and 36.4% females while the non-criminology sub-sample was 45.3% male and 54.7% female. The large number of males in the criminology sub-sample is normal as their tends to be a greater number of male criminology majors than female criminology majors.

Table 2

Frequencies and Percentages for Demographic Variables

Variable	Valid n	Valid%
Sex		
Female	159	43.9
Male	203	56.1
Age		
18	44	12.2
19	87	24.0
20	55	15.2
21	68	18.8
22	61	16.9
23	19	5.2
24	7	1.9
>24	21	5.8

Age was measured as a continuous variable with students writing in their age on the survey instrument. The mean age of respondents was 20 years. While the age range for the total sample was 18-44 years, the vast majority (94.2 %) of undergraduates reported their age to be between 18 and 24. Students over the age of 24 accounted for just 5.8 % of the total sample.

Death Penalty Class Variable

The researcher in this study was also interested in whether participants had previously taken a death penalty course since having taken such a course would likely affect an individual’s death penalty attitude. The death penalty class variable was measured dichotomously. The raw number and percentage of students who previously participated in a death penalty course is presented in Table 3.

Table 3

Frequency and Percentage for Death Penalty Class Variable

Variable	Valid n	Valid%
Death penalty class		
No	341	94.2
Yes	21	5.8

Educational Variables

Because the researcher in this study was attempting to improve the representativeness of the sample by stratifying the sample based upon major and class standing, the educational variables are of specific interest. Table 4 presents the frequencies and percentages of student class levels within both the criminology and non-criminology sub-samples. Due to the stratification process used during sampling, this

table also reports the percentage of students within each class level in the total student population. Differences between the samples and the actual population are also provided.

Table 4

Frequencies and Percentages for Educational Variables

Sub-sample & Variable	Valid n	Valid %	Population %	% Difference
Criminology Majors (n=214)				
Freshman	65	30.4	29.5	+0.9%
Sophomore	63	29.4	26.1	+3.3%
Junior/Senior	86	40.2	44.4	-4.2%
Non-Criminology Majors (n=148)				
Freshman	46	31.1	36.4	-5.3%
Sophomore	14	9.5	20.1	-10.6%
Junior/Senior	88	59.4	43.5	+15.9%

Knowledge Variables

Several knowledge variables were included as independent variables in this study. Wrongful convictions knowledge, racial discrimination knowledge, socioeconomic discrimination knowledge, general deterrence knowledge, and cost knowledge were all measured. The items used to measure these variables have been used in previous research to obtain a measure of death penalty knowledge (Wright et al., 1995). These variables were included because previous research has shown that they are important to one's death penalty attitude. The knowledge variables were combined to form the death penalty knowledge scale. Scores were obtained by adding up the number of correct responses to the knowledge items pertaining to each of the five knowledge variables. Table 5 below presents the mean, standard deviation, low and high scores, and valid n of the knowledge variables.

Table 5

Descriptive Statistics for Knowledge Variables

Variable	Mean	SD	Low Score	High Score	N
Criminology Majors					
Death penalty	4.26	1.987	0	8	214
Wrongful convictions	.91	.292	0	1	214
Racial discrimination	1.09	.876	0	2	214
Socioeconomic discrimination	.76	.427	0	1	214
General deterrence	.96	.997	0	3	214
Cost	.55	.499	0	1	214
Non-Criminology Majors					
Death penalty	3.35	1.686	0	8	148
Wrongful convictions	.84	.370	0	1	148
Racial discrimination	.82	.833	0	2	148
Socioeconomic discrimination	.76	.430	0	1	148
General deterrence	.62	.899	0	3	148
Cost	.32	.467	0	1	148

Wrongful convictions knowledge was measured with one question (see item 14 in Appendix A), and scores ranged between 0 and 1. As shown in Table 5, the mean score for wrongful convictions knowledge was .91 for criminology majors and .84 for non-criminology majors, indicating a relatively high degree of wrongful convictions

knowledge. Racial discrimination knowledge was measured with two questions on the pre-test (see items 15 – 16 in Appendix A), and scores ranged between 0 and 2. Table 5 shows that the mean score for this variable is 1.09 for criminology majors and .82 for non-criminology majors, indicating a rather low degree of racial discrimination knowledge, especially for non-criminology majors. Socioeconomic discrimination knowledge was measured with one question on the pre-test (see item 17 in Appendix A), and scores ranged between 0 and 1. As indicated in Table 5, the mean score for both criminology and non-criminology majors was .76, indicating a relatively high degree of socioeconomic discrimination knowledge. General deterrence knowledge was measured with three questions on the pre-test (see items 18 – 20 in Appendix A), and scores ranged between 0 and 3, with a mean score of .96 for criminology majors and .62 for non-criminology majors. On average, participants tended to have little knowledge of general deterrence. Finally, cost knowledge was measured by one question on the pre-test (see item 21 in Appendix A) with scores ranging between 0 and 1. Criminology majors had a mean score of .55 while non-criminology majors had a mean score of .32. This indicates a fairly low degree of cost knowledge among participants in this study, particularly for the non-criminology majors. Taking these mean scores into account, it appears that participants in both groups (e.g. criminology and non-criminology) had the most knowledge about wrongful convictions and socioeconomic discrimination. Further, it is important to note that criminology majors had mean scores higher than those of non-criminology majors for all five of the knowledge factors. This is not surprising since criminology majors have likely been exposed to information about the death penalty more frequently than non-criminology majors.

To obtain a total death penalty knowledge score, the scores for all eight of the death penalty knowledge items described above were added together. A lower death penalty knowledge score indicated less death penalty knowledge, while higher scores indicated more death penalty knowledge. As illustrated in Table 5 above, the mean score for death penalty knowledge was 4.26 for criminology majors and 3.35 for non-criminology majors. This shows that, on average, criminology majors answered just over half of the death penalty knowledge items correctly, indicating that criminology students have a moderate level of death penalty knowledge. Non-criminology majors answered fewer than half of the death penalty knowledge items correctly and, therefore, had less than average death penalty knowledge.

Scale Reliability

Because death penalty knowledge was measured with a multiple item scale, it was necessary to assess the reliability of this scale. This step is important because it will determine whether the items are varying together and, thus, are correlated. In other words, performing a reliability check will help the researcher to assess whether the items in the scale have internal consistency.

The coefficient alpha was used to assess scale reliability in this study. “Alpha is defined as the proportion of a scale’s total variance that is attributable to a common source, presumably the true score of a latent variable underlying the items” (DeVellis, 2003, p. 31). Alpha values range between 0.0 and 1.0. However, DeVellis (2003, p. 95-96) considers “below .60, unacceptable; between .60 and .65, undesirable; between .65 and .70, minimally acceptable; between .70 and .80, respectable; between .80 and .90, very good; much above .90, one should consider shortening the scale” (p. 95-96). Higher

alpha levels imply that the scale items have greater internal consistency and are measuring the same underlying construct. Table 6 presents the scale items, corrected item-total correlations, and Cronbach’s alpha for the death penalty knowledge scale.

Table 6

Item-Total Correlations and Alpha for Death Penalty Knowledge Scale

Item	Item-Total Correlation
Wrongful convictions knowledge	.179
Racial discrimination knowledge	.367
Socioeconomic discrimination knowledge	.288
General deterrence knowledge	.311
Cost knowledge	.294

NOTE: Cronbach’s Alpha = .490

The scale for death penalty knowledge consisted of eight items that asked students to indicate whether a factual statement about one of five factors pertaining to the death penalty was “true”, “false”, or “don’t know”. The findings illustrate that all of the item-total correlations, which range between .179 and .367, fall below the .60 minimum for an acceptable score. In addition, the Cronbach’s alpha for the scale is .490. Again, this alpha level is considered “unacceptable” (DeVellis, 2003). These findings suggest that the death penalty knowledge scale is not reliable and the researcher cannot conclude that all of the items in the scale are measuring the same construct. Thus, the death penalty knowledge scale will not be used in the present analysis.

Retribution and Attitude Strength

Retribution and attitude strength were included as independent variables in this study because previous research has shown that these variables are important to one's death penalty attitude. Retribution was measured by a scale created by Bohm, Clark, and Aveni (1991). A total score between 8 and 40 was computed for each participant based upon their responses to the eight retribution items. Retribution scores between 8 and 18 indicated a respondent low in retribution, while those scores between 30 and 40 indicated a respondent high in retribution. Scores between 19 and 29 indicated a respondent with an intermediate level of retribution.

Attitude strength was measured by multiplying a respondent's attitude extremity score by their attitude importance score. Separate items designed to measure attitude extremity were not necessary, rather the response categories used for the death penalty attitude items were used to determine the extremity of respondents' attitudes. For example, a participant who indicated that they "very strongly agree" that they favor the death penalty for a person convicted of murder would be judged as having a more extreme attitude than someone who indicates that they "agree" with this statement and would be scored accordingly (see items 1 – 4 in Appendix A). The individual extremity scores were then added together to produce an overall extremity score. Attitude importance was measured by one item on the questionnaire, which asked, "Compared to other social issues that are important to you, how important is the death penalty?" Students were asked to choose one of the following responses, "Not at all important", "Somewhat important", "Neither unimportant or important", "Somewhat important", or "Very important". An attitude strength score was then computed by multiplying

respondents' attitude extremity score by their attitude importance score. Attitude strength scores ranged between 1 (weak) and 15 (strong) Table 7 below presents the mean, standard deviation, low and high scores, and valid n of the retribution and attitude strength variables.

Table 7

Descriptive Statistics for Retribution and Attitude Strength Variables

Variable	Mean	SD	Low Score	High Score	N
Criminology majors					
Retribution	25.70	5.263	10	39	214
Attitude strength	7.75	2.599	2	15	214
Non-criminology majors					
Retribution	23.78	5.099	11	35	148
Attitude strength	6.87	3.039	1.8	15	148

As illustrated in Table 7 above, the mean retribution score for criminology majors was 25.7, indicating that, on average, criminology majors had an intermediate level of retribution. The mean retribution score for non-criminology majors was 23.78. While this is slightly lower than the mean retribution score for criminology majors, it also indicates that, on average, non-criminology majors had an intermediate level of retribution. Additionally, the mean attitude strength score for criminology majors was 7.75, which falls almost exactly between the upper and lower bounds of possible attitude strength scores. This indicates that criminology majors, on average, did not have especially weak or strong death penalty attitudes, rather the strength of their death penalty attitudes was at

an intermediate level. Non-criminology majors had a mean attitude strength score of 6.87. Again, while criminology majors had slightly stronger death penalty attitudes than non-criminology majors, this score indicates that non-criminology majors, on average, also held death penalty attitudes with an intermediate level of attitude strength.

Death Penalty Attitude

Death penalty attitude was measured as a dependent variable at pre-test as well as post-test. The items measuring participants' death penalty attitudes were informed by several questions derived from a questionnaire constructed by Wright, Bohm, and Jamieson (1995). Participants' scores on the four death penalty attitude items were added together to generate a total death penalty attitude score between 4 (low) and 20 (high). Death penalty scores between 4 and 9 indicated a respondent who had an attitude consistent with a low level of death penalty support, while scores between 15 and 20 indicated a respondent with an attitude consistent with a high level of death penalty support. Scores between 10 and 14 indicated a respondent who had an attitude consistent with an intermediate level of death penalty support. Table 8 below presents the mean, standard deviation, low and high scores, and valid n of the death penalty attitude variables at pre- and post-test.

Table 8

Descriptive Statistics for Death Penalty Attitude Variable

Variable	Mean	SD	Low Score	High Score	N
Criminology majors					
Death penalty attitude at pre-test	13.25	3.484	4	20	214
Death penalty attitude at post-test	12.58	3.549	4	20	214
Non-criminology majors					
Death penalty attitude at pre-test	11.07	3.501	4	20	148
Death penalty attitude at post-test	10.68	3.139	4	19	148

As illustrated in Table 8, the mean death penalty attitude score for criminology majors at pre-test was 13.25 indicating that, on average, participants' death penalty attitudes were at an intermediate level at pre-test. At post-test, the mean death penalty attitude score among criminology majors was 12.58. While this score is slightly lower than the mean death penalty attitude score at pre-test, it indicates that, on average, participants' death penalty attitudes remained at an intermediate level at post-test. Table 8 also indicates that non-criminology majors had a mean death penalty attitude score of 11.07 at pre-test and 10.68 at post-test. While the death penalty attitude score among non-criminology majors was slightly lower at post-test, the scores indicate that non-criminology majors' death penalty attitudes were at an intermediate level at the pre-test as well as the post-test.

Information Type

In the present study, participants were randomly assigned to one of seven groups. Their group assignment determined which type of information (if any) they received at post-test. (For a discussion of the rationale for splitting the experimental group into the seven different groups, please refer to Chapter IV.) Participants in the control group did not receive any death penalty information, rather, they were given a number of addition and subtraction problems to complete. Students in the five of the six experimental groups were provided with information about one of the following five death penalty factors: wrongful capital convictions, racial discrimination, socioeconomic discrimination, general deterrence, or cost. Finally, the sixth experimental group received information about all five of these factors (see items 1 – 6 in Appendix B). Frequencies and percentages for the information type variable are presented in table 9.

Table 9

Frequencies and Percentages for Information Type

Information type	Valid n	Valid %
Control	178	49.0
Wrongful convictions	34	9.4
Racial discrimination	30	8.3
Socioeconomic discrimination	27	7.4
General deterrence	30	8.3
Cost	32	8.8
All information	32	8.8
Experimental group	184	51.0

The frequencies and percentages in table 9 indicate that the random assignment procedure was quite successful with 49 % of participants in the control group and 51 % in one of the six experimental groups. Further, while the six experimental groups were not of exactly equal size, none of the differences between the groups is greater than 2 %.

Bivariate Correlations

The bivariate correlations among each of the independent variables and the single dependent variable used in this study are presented in table 10. It is important to note that this method was not used to make any conclusions about causal relationships between the variables. Bivariate correlations were used only to determine if there were any significant relationships among the variables. This procedure was used to test for multicollinearity among the independent variables in this study. The absence of multicollinearity is an assumption that must be met to perform multiple regression analysis. Perfect collinearity occurs when one independent variable is perfectly correlated with another independent variable. High multicollinearity can create estimation problems by producing large slope estimates and standard errors (Lewis-Beck, 1980).

Table 10

Bivariate Correlation Matrix

Variable	1	2	3	4	5	6	7	8
DP attitude pre 1	1 (463)							
Attitude strength 2	.126** (463)	1 (463)						
Retribution 3	.638** (463)	.163** (463)	1 (463)					
DP knowledge 4	.009 (463)	.097* (463)	-.043 (463)	1 (463)				
WC knowledge 5	.035 (463)	.063 (463)	-.028 (463)	.376** (463)	1 (463)			
RD knowledge 6	-.059 (463)	.011 (463)	-.064 (463)	.716** (463)	.156 (463)	1 (463)		

SD knowledge 7	.018 (463)	.027 (463)	.017 (463)	.511** (463)	.139** (463)	.281** (463)	1 (463)	
GD knowledge 8	.023 (463)	.071 (463)	-.024 (463)	.738** (463)	.152** (463)	.258** (463)	.197** (463)	1 (463)
Cost knowledge 9	.067 (463)	.167** (463)	.015 (463)	.502** (463)	.107* (463)	.220** (463)	.127** (463)	.129** (463)
DP class 10	.046 (463)	.083 (463)	.028 (463)	.260** (463)	.071 (463)	.210** (463)	.086 (463)	.185** (463)
Class standing 11	-.106* (463)	.058 (463)	-.118* (463)	.225** (463)	.040 (463)	.196** (463)	.139** (463)	.147** (463)
Sex 12	.378** (463)	-.008 (463)	.274 (463)	.098* (463)	.059 (463)	-.020 (463)	.021 (463)	.150** (463)
Major 13	.266** (463)	.138** (463)	.159** (463)	.235** (463)	.127** (463)	.144** (463)	.026 (463)	.165** (463)
Age 14	-.028 (463)	.091 (463)	-.061 (463)	.070 (463)	-.058 (463)	.065 (463)	.047 (463)	.099* (463)
DP attitude post 15	.800** (362)	.108* (362)	.614** (362)	.043 (362)	.034 (362)	-.030 (362)	.068 (362)	.017 (362)
Information type 16	.016 (363)	.082 (363)	.025 (363)	-.002 (363)	.084 (363)	-.030 (363)	.000 (363)	-.008 (363)

NOTE:** Correlation is significant at the .01 level (2-tailed)

* Correlation is significant at the .05 level (2-tailed)

(n) in parenthesis

Variable	9	10	11	12	13	14	15	16
DP Attitude pre 1								
Attitude Strength 2								
Retribution 3								
DP knowledge 4								
WC knowledge 5								
RD knowledge 6								
SD knowledge 7								
GD knowledge 8								
Cost knowledge 9	1 (463)							
DP class 10	.160** (463)	1 (463)						
Class	.098*	.169**	1					

standing 11	(463)	(463)	(463)					
Sex 12	.070 (463)	.081 (463)	.052 (463)	1 (463)				
Major 13	.248** (463)	.138** (463)	-.089 (463)	.173** (463)	1 (463)			
Age 14	-.032 (463)	.075 (463)	.576** (463)	.082 (463)	-.139** (463)	1 (463)		
DP attitude post 15	.107* (362)	.102 (362)	-.134* (362)	.345** (362)	.267** (362)	-.048 (362)	1 (362)	
Information type 16	.038 (363)	.031 (363)	-.066 (363)	.024 (363)	.072 (363)	-.097 (363)	-.062 (363)	1 (363)

NOTE:** Correlation is significant at the .01 level (2-tailed)

* Correlation is significant at the .05 level (2-tailed)

(n) in parenthesis

In examining the correlation coefficients, it was found that several of the independent variables were significantly correlated with one another. The highest correlations among the independent variables occurred among the knowledge variables. For instance, death penalty knowledge and general deterrence knowledge were the most highly correlated of the knowledge variables ($r = .738, p < .001$). A finding of highly correlated knowledge variables was not surprising due to the fact that these variables were all measuring some aspect of participants' death penalty knowledge and were added together to form the death penalty knowledge scale. As such it was expected that these variables would be correlated with one another. None of the other independent variables were found to be significantly correlated with one another.

An examination of the correlation matrix also indicates that four of the independent variables were significantly correlated with the dependent variable ("death penalty attitude") at the .01 level. Positive correlations were found between "attitude strength" ($r = .126$), "retribution" ($r = .638$), "sex" ($r = .378$), "major" ($r = .266$) and "death penalty attitude". These results suggest that students with stronger death penalty attitudes, as well as those with a higher level of belief in retribution, tend to hold attitudes

that are more consistent with death penalty support. Additionally, male criminology majors appear to hold attitudes consistent with death penalty support. One independent variable was significantly correlated with death penalty attitude at the .05 level. A negative correlation was found between “class standing” ($r = -.106$) and death penalty attitude. This suggests that students who have a lower class standing (e.g. freshmen) tend to hold attitudes that are more consistent with death penalty support.

T-Test

A paired-samples t-test was conducted to evaluate the impact of information about the death penalty on students’ death penalty attitudes. Overall, there was a statistically significant decrease in death penalty support from Time 1 ($M = 12.36$, $SD = 3.648$) to Time 2 ($M = 11.80$, $SD = 3.510$), $t(361) = 4.655$, $p < .000$ (two-tailed). The mean decrease in death penalty support was .555 with a 95% confidence interval ranging from .321 to .790. The Cohen’s d statistic (.1566) indicated a negligible effect size.

Within the control group, there was a statistically insignificant decrease in death penalty support from Time 1 ($M = 12.38$, $SD = 3.605$) to Time 2 ($M = 12.08$, $SD = 3.397$), $t(176) = 2.063$, $p = .041$ (two-tailed). The mean decrease in death penalty support within the control group was .305 with a 95% confidence interval ranging from .013 to .597.

A statistically insignificant decrease in death penalty support from Time 1 ($M = 11.97$, $SD = 3.697$) to Time 2 ($M = 11.76$, $SD = 3.551$), $t(33) = .546$, $p = .589$ (two-tailed) was also found among students who received information about wrongful convictions. The mean decrease in death penalty support within the wrongful convictions group was .206 with a 95% confidence interval ranging from -.561 to .973. Among students in the

experimental group, those who received information about wrongful convictions exhibited the smallest decrease in death penalty support from pre-test to post-test.

Among students who received information about racial discrimination, there was a statistically insignificant decrease in death penalty support from Time 1 ($M = 12.23$, $SD = 2.885$) to Time 2 ($M = 11.40$, $SD = 2.699$), $t(29) = 1.782$, $p = .085$ (two-tailed). The mean decrease in death penalty support within the racial discrimination group was .833 with a 95% confidence interval ranging from -.123 to 1.790.

Students who received information about socioeconomic discrimination exhibited a statistically significant decrease in death penalty support from Time 1 ($M = 12.19$, $SD = 3.763$) to Time 2 ($M = 11.04$, $SD = 3.514$), $t(26) = 2.165$, $p < .05$ (two-tailed). The mean decrease in death penalty support within the socioeconomic discrimination group was 1.148 with a 95% confidence interval ranging from .058 to 2.238. The Cohen's d statistic (.315) indicated a small to medium effect size.

Among students who received information about general deterrence, there was a statistically insignificant decrease in death penalty support from Time 1 ($M = 12.43$, $SD = 3.884$) to Time 2 ($M = 12.00$, $SD = 3.677$), $t(29) = .988$, $p = .331$ (two-tailed). The mean decrease in death penalty support within the control group was .433 with a 95% confidence interval ranging from -.464 to 1.330.

Those students who received information about cost exhibited the most statistically significant decrease in death penalty support from Time 1 ($M = 12.59$, $SD = 3.644$) to Time 2 ($M = 11.13$, $SD = 3.309$), $t(31) = 3.855$, $p < .05$ (two-tailed). The mean decrease in death penalty support within the cost group was 1.469 with a 95% confidence

interval ranging from .692 to 2.246. The Cohen's *d* statistic (.419) indicated a small to medium effect size.

The last group of students received information about wrongful convictions, racial discrimination, socioeconomic discrimination, general deterrence, and cost. Among these students, there was a statistically insignificant decrease in death penalty support from Time 1 ($M = 12.56, SD = 4.384$) to Time 2 ($M = 11.81, SD = 4.707$), $t(31) = 1.454, p = .156$ (two-tailed). The mean decrease in death penalty support within the control group was .750 with a 95% confidence interval ranging from -.302 to 1.802.

Analysis of Variance

A mixed design analysis of variance (ANOVA) with repeated measures on the second variable was conducted to determine which type of information (if any) caused the most significant change in participants' death penalty attitudes from pre-test (before the intervention) to post-test (after the intervention). The means and standard deviation are presented in Table 11. There was a significant effect for attitude change, such that overall support for the death penalty decreased. However, there was an insignificant effect for information, such that information type explained only 3 % of the variance in death penalty attitude from pre- to post-test (partial eta squared = .030).

Table 11

Descriptive Statistics for Death Penalty Attitude Change for Different Types of Information

Information Type	N	Mean	Standard deviation
Control	177	-.305	.169
Wrongful convictions	34	-.206	.387
Racial discrimination	30	-.833	.412
Socioeconomic discrimination	27	-1.148	.434
General deterrence	30	-.433	.412
Cost	32	-1.469	.399
All information	32	-.750	.399

Overall, while students who received information about the cost of the death penalty exhibited the greatest decrease in death penalty support from pre- to post-test, there was not a statistically significant difference between the seven groups. This indicates that the type of information that students received was not particularly important to the degree of change in their death penalty attitudes between pre- and post-test.

Multiple Regression

Multiple regression was used to assess the ability of retribution and attitude strength to predict change in death penalty attitudes after controlling for the influence of age, sex, and class standing. The following equation was used to estimate these effects in the full regression model:

$$\hat{y} = a_0 + b_1x_1 + b_2x_2 + b_3x_3 + \dots + b_kx_k + e$$

Where:

a_0 = constant

x_1 = age

x_2 = sex

x_3 = class standing

x_4 = retribution

x_5 = attitude strength

The regression procedures were split into four models. The first model examined the effects of the control variables (age, sex, and class standing) and the retribution variable on death penalty attitude change among criminology majors. The second model examined the effects of the control variables, the retribution variable, and the attitude strength variable on death penalty attitude change among criminology majors. The third model examined the effects of the control variables and the retribution variable on death penalty attitude change among non-criminology majors. Finally, the fourth model examined the effects of the control variables, the retribution variable, and the attitude strength variable on death penalty attitude change among non-criminology majors. This sequential multiple regression method allowed the researcher to assess the amount of variance accounted for by the control variables, as well as the attitude strength and retribution variables. Additionally, the researcher was able to examine the impact of all of the variables on criminology and non-criminology majors separately.

Model 1: Control Variables and Retribution Variable for Criminology Majors

For this model a linear regression was run with the control variables in the study. The independent variables included were “age”, “sex”, “class standing”, and “retribution”. The dependent variable was “death penalty attitude change”. Table 11 illustrates the results from Model 1.

Table 12

Control Variables and Retribution Variable for Criminology Majors (Model 1)

Independent Variable	Unstandardized Slopes (Std. Error)	Standardized Coefficients (Beta)	t
Constant	.948 (2.074)		.457
Sex	-.344(.358)	-.069	-.961
Class standing	-.228 (.254)	-.080	-.897
Age	-.020 (.103)	-.017	.845
Retribution	-.020 (.033)	-.044	.554

R-square = .015
F = .776
Standard Error = 2.39383

The R-square statistic represents the proportion of variance in the dependent variable that is explained by the independent variables. The R-square can range in value from 0 to 1, with the values closer to 1 indicating the independent variables account for more of the variation in the dependent variable. The R-square in this model is .015. This indicates that the independent variables sex, class standing, age, and retribution account for 1.5% of the variance in the dependent variable death penalty attitude change for criminology majors. It also indicates that that we can reduce our prediction error by 1.5% when taking into account these independent variables instead of just using the mean

to predict the dependent variable. The current R-square of .015 is extremely weak and leaves a large proportion of the variance in death penalty attitude change unexplained.

The null hypothesis for the F-test is that all the slopes in the regression equation are equal to zero. The F in this model is .776 (Sig. = .542). Because the F score in this model is not significant, we cannot reject the null hypothesis that the slopes in the regression equation are equal to zero. As such, it is likely that none of the independent variables in this regression is significant, and it is not possible to draw any conclusions about the relationship between any of the control variables (sex, class standing, age, and retribution) and death penalty attitude change among criminology students.

The first model provided no explanation of the variance in death penalty attitude change. These results indicate that this first model is poorly specified and that all relevant variables are not included in the model. The next model included the aforementioned control variables and, additionally, the attitude strength variable.

Model 2: Control Variables, Retribution Variable, and Attitude Strength Variable for Criminology Majors

For this model, a linear regression was run with the control variables and retribution variable from the previous model as well as the attitude strength variable. The R-square for this model is .016. This can be interpreted as the independent variables sex, class standing, age, retribution, and attitude strength account for 1.6% of the variance in the dependent variable death penalty attitude change among criminology majors.

Although, the R-square has increased in this model from 1.5% to 1.6%, it remains extremely low and leaves a very large portion of the variance unexplained. Moreover, the addition of the attitude strength variable only increased the variance explained by

.1%. Furthermore, the F for this model is .683 (Sig. = .637). This score and alpha level present the possibility that all of the slopes in the regression equation equal zero and that none of the independent variables is significant.

Table 13

Control Variables, Retribution Variable and Attitude Strength Variable for Criminology Majors (Model 2)

Independent Variable	Unstandardized Slopes (Std. Error)	Standardized Coefficients (Beta)	t
Constant	.995 (2.079)		.479
Sex	-.356 (.359)	-.072	-.991
Class standing	-.235 (.255)	-.082	-.923
Age	-.013 (.103)	-.012	-.130
Retribution	-.015 (.035)	-.033	-.429
Attitude strength	-.037 (.066)	-.040	-.567

R-square = .016
 F = .683
 Standard Error = 2.39773

In the second model, none of the variables reached significance. The t-values for all of the variables are very low and do not meet the minimally accepted alpha level of .05. Thus, the null hypothesis cannot be rejected, and no conclusions can be made about the relationship between sex, class standing, age, attitude strength, or retribution and death penalty attitude change among criminology majors. Once again, the second model did not provide an explanation of the variance in death penalty attitude change. These results indicate that this second model is poorly specified and that the variables included in this model may not be relevant to death penalty attitude change.

Model 3: Control Variables and Retribution Variable for Non-criminology Majors

For this model, a linear regression was run with the control variables from the previous model as well as the retribution variable. Only non-criminology majors were included in this model. The R-square for this model is .028. This can be interpreted as the independent variables sex, class standing, age, and retribution account for 2.8% of the variance in the dependent variable death penalty attitude change among non-criminology majors. The R-square in this model is extremely low and leaves a very large portion of the variance unexplained. Furthermore, the F for this model is 1.047 (Sig. = .385). This score and alpha level present the possibility that all of the slopes in the regression equation equal zero and that none of the independent variables is significant.

Table 14

Control Variables and Retribution Variable for Non-criminology Majors (Model 3)

Independent Variable	Unstandardized Slopes (Std. Error)	Standardized Coefficients (Beta)	T
Constant	1.003 (1.398)		.718
Sex	.210 (.360)	.050	.582
Class standing	.240 (.240)	.105	1.000
Age	-.038 (.068)	-.058	-.564
Retribution	-.052 (.034)	-.127	-1.509

R-square = .028

F = 1.047

Standard Error = 2.08078

In the third model, none of the variables reached significance. The t-values for all of the variables are very low and do not meet the minimally accepted alpha level of .05. Thus, the null hypothesis cannot be reject, and no conclusions about the relationship between sex, class standing, age, or retribution and death penalty attitude change among

non-criminology students can be made. Once again, the third model did not explain the variance in death penalty attitude change. These results indicate that this model is poorly specified and that the independent variables included in the model may not be related to the dependent variable of death penalty attitude change.

Model 4: Control Variables, Retribution Variable, and Attitude Strength Variable for Non-criminology Majors

For this model, a linear regression was run with the control variables and retribution variable from the previous model as well as the attitude strength variable. Only non-criminology majors were included in this model. The R-square for this model is .040. This can be interpreted as the independent variables sex, class standing, age, retribution, and attitude strength account for 4.0% of the variance in the dependent variable death penalty attitude change among non-criminology majors. Although, the R-square has increased in this model from 1.8% to 4.0%, it remains extremely low and leaves a very large portion of the variance unexplained. Moreover, the addition of the attitude strength variable only increased the variance explained by 2.2%. Furthermore, the F for this model is 1.181 (Sig. = .322). This score and alpha level present the possibility that all of the slopes in the regression equation equal zero and that none of the independent variables is significant.

Table 15

Control Variables, Retribution Variable and Attitude Strength Variable for Non-criminology Majors (Model 4)

Independent Variable	Unstandardized Slopes (Std. Error)	Standardized Coefficients (Beta)	t
Constant	1 .266 (1.409)		.898
Sex	.161 (.361)	.039	.446
Class standing	.242 (.239)	.106	1.013
Age	-.025 (.068)	-.037	-.361
Retribution	-.052 (.034)	-.128	-1.535
Attitude strength	-.075 (.058)	-.109	-1.302

R-square = .040
 F = 1.181
 Standard Error = 2.07574

In the fourth model, none of the variables reached significance. The t-values for all of the variables are very low and do not meet the minimally accepted alpha level of .05. Thus, we fail to reject the null hypothesis, and cannot make any conclusions about the relationship between sex, class standing, age, attitude strength, or retribution and death penalty attitude change among non-criminology majors. Once again, the fourth model did not explain the variance in death penalty attitude change. These results indicate that this fourth model is poorly specified and that the variables included in this model may not be relevant to death penalty attitude change.

Research Hypotheses

Hypothesis 1: Death Penalty Knowledge

The first hypothesis was that students would have little knowledge of the death penalty at pre-test. This hypothesis was based upon previous research indicating that most people possess little knowledge about the death penalty and its surrounding issues (Bohm, 1989; Bohm et al., 1991; Lambert & Clarke, 2001; Sarat & Vidmar, 1976; Wright et al., 1995). The descriptive statistics show that the mean score for death penalty knowledge was 4.26 for criminology majors and 3.35 for non-criminology majors. Possible total scores ranged between 0 and 8. This indicates that, on average, criminology students answered 53 % of the death penalty knowledge items correctly while non-criminology majors answered 42 % of these items correctly. This suggests that, in the present study, criminology students appeared to have moderate knowledge of the death penalty while non-criminology students had less than average death penalty knowledge. While it appears that these results provide support for previous research, it should be noted that the death penalty knowledge items, when tested for reliability, did not reach a sufficient alpha level. This indicates that the scale is not reliable and, thus, the items were not measuring the same constructs. As such, it is not possible to conclude that Hypothesis 1 was supported in this research.

Hypothesis 2: Wrongful Convictions

The second hypothesis in this study was that students who were provided with information about wrongful capital convictions would exhibit a statistically significant reduction in death penalty support at post-test. Previous research has shown that information about wrongful capital convictions is one of the two types of information

most likely to cause change in death penalty attitudes (Bohm, 1989; Bohm et al., 1991; Bohm & Vogel, 1994; Sandys, 1995). The t-test in the present study indicated that the mean decrease in death penalty support from the pre-test to the post-test within the wrongful convictions group was .206 (Sig = .589). However, this decrease was not found to be statistically significant. These findings suggest that exposing students to information about wrongful capital convictions did not result in a statistically significant decrease in death penalty support from pre- to post-test. This finding is contrary to the findings of previous research and, likewise, suggests that Hypothesis 2 was not supported in this research study. A more detailed discussion of these results is provided in Chapter VI.

Hypothesis 3: Racial Discrimination

Hypothesis 3 predicted that those students who were provided with information about racial discrimination in the application of the death penalty would exhibit a statistically significant reduction in death penalty support at post-test. Previous research has indicated that information about racial discrimination in application of the death penalty is one of the two types of information most likely to cause a decrease in death penalty support (Bohm, 1989; Bohm et al., 1991; Bohm & Vogel, 1994; Sandys, 1995). The t-test in the present study indicated that the mean decrease in death penalty support from the pre-test to the post-test within the racial discrimination group was .833 (Sig = .085). However, this decrease was not found to be statistically significant. These findings suggest that exposing students to information about racial discrimination in application of the death penalty did not result in a statistically significant decrease in death penalty support from pre- to post-test. This finding is contrary to the findings of previous

research and, likewise, suggests that Hypothesis 3 was not supported in this research study. A more detailed discussion of these results is provided in Chapter VI.

Hypothesis 4: Socioeconomic Discrimination

The fourth hypothesis in the present study predicted that those students who were provided with information about socioeconomic discrimination in the application of the death penalty would exhibit a statistically significant reduction in death penalty support at post-test. While previous research has not attempted to examine specifically the effects of information about socioeconomic discrimination in application of the death penalty on death penalty attitudes, the fact that previous research has shown racial discrimination to be particularly important to changes in one's death penalty attitude establishes the possibility that knowledge about other forms of discrimination (such as socioeconomic discrimination) in application of the death penalty may also be pertinent to death penalty attitudes. The t-test in the present study indicated that the mean decrease in death penalty support from the pre-test to the post-test within the socioeconomic discrimination group was 1.148 (Sig = .040). This decrease was found to be statistically significant. This finding suggests that exposing students to information about socioeconomic discrimination in application of the death penalty resulted in a statistically significant decrease in death penalty support from pre- to post-test. This finding suggests that Hypothesis 4 was supported in this research study.

Hypothesis 5: General Deterrence

Hypothesis 5 predicted that those students who were provided with information about the lack of a general deterrent impact of the death penalty would not exhibit a statistically significant reduction in death penalty support at post-test. No previous study

has found information about the lack of a general deterrent impact to be particularly important to changing death penalty attitudes (Bohm, 1989; Bohm et al., 1991; Bohm & Vogel, 1994; Sandys, 1995). The t-test in the present study indicated that the mean decrease in death penalty support from the pre-test to the post-test within the general deterrence group was .433 (Sig = .331). However, this decrease was not found to be statistically significant. These findings suggest that exposing students to information about general deterrence in application of the death penalty did not result in a statistically significant decrease in death penalty support from pre- to post-test. This finding is consistent with the findings of previous research and, likewise, suggests that Hypothesis 5 was supported in this research study.

Hypothesis 6: Cost

The sixth hypothesis in the present study was that those students who were provided with information about the cost of the death penalty would not exhibit a statistically significant reduction in death penalty support at post-test. No previous study has found information about the cost of the death penalty to be particularly important to changing death penalty attitudes (Bohm, 1989; Bohm et al., 1991; Bohm & Vogel, 1994; Sandys, 1995). The t-test in the present study indicated that the mean decrease in death penalty support from the pre-test to the post-test within the cost group was 1.469 (Sig = .001). This decrease was found to be statistically significant. This finding suggests that exposing students to information about cost in application of the death penalty did result in a statistically significant decrease in death penalty support from pre- to post-test. This finding is contrary to the findings of previous research and, likewise, suggests that

Hypothesis 6 was not supported in this research study. A more detailed discussion of these results is provided in Chapter VI.

Hypothesis 7: All Information

Hypothesis 7 predicted that those students who received information about all five of the factors would exhibit a statistically significant reduction in death penalty support at post-test. Previous research has shown that, when given information about all of the various factors relating to the death penalty (including wrongful capital conviction, racial discrimination, socioeconomic discrimination, general deterrence, and cost), students exhibit a statistically significant reduction in death penalty support Bohm, 1989; Bohm et al., 1991; Bohm & Vogel, 1994; Cochran et al., 2006; Lambert & Clarke, 2001; Sandys, 1995; Sarat & Vidmar, 1976; Vidmar & Dittenhoffer, 1981; Wright et al., 1995). The t-test in the present study indicated that the mean decrease in death penalty support from the pre-test to the post-test within the cost group was .750 (Sig = .156). However, this decrease was not found to be statistically significant. This finding suggests that exposing students to information about all of the various factors examined in this research study did not result in a statistically significant decrease in death penalty support from pre- to post-test. This finding is contrary to the findings of previous research and, likewise, suggests that Hypothesis 7 was not supported in this research study. A more detailed discussion of these results is provided in Chapter VI.

Hypothesis 8: Most Important Information

It was also hypothesized that the greatest statistically significant in death penalty support among those students who read about only one of the five death penalty factors would be among those students who were provided with information about wrongful

capital convictions. No previous research study has attempted to isolate which factor is most pertinent to altering death penalty attitudes. An examination of the t-tests for the five death penalty factors indicates that the greatest amount of change in death penalty attitude from pre- to post-test was among the group of students who received information about the cost of the death penalty ($M = 1.469$, $Sig = .001$). Additionally, as indicated previously in the discussion about hypothesis 2, those students who received information about wrongful capital convictions did not exhibit a statistically significant reduction in death penalty support at post-test. Further, the results of the ANOVA indicate that there was an insignificant effect for information, such that information type explained only 3 % of the variance in death penalty attitude from pre- to post-test (partial eta squared = .030). This indicates that, while students who received information about the cost of the death penalty exhibited the greatest decrease in death penalty support from pre- to post-test, the type of information that students received was not particularly important to the degree of change in their death penalty attitudes between pre- and post-test. These results indicate that hypothesis 8 was not supported in this research study. A more detailed discussion of these results is provided in Chapter VI.

Hypothesis 9: Retribution

Hypothesis 9 predicted that those students whose death penalty support is based upon higher levels of retribution would not exhibit statistically significant change in level of death penalty support at post-test. Studies that have examined this third aspect of the Marshall hypothesis have found support for this assertion (Bohm et al., 1991; Cochran et al., 2006; Sarat & Vidmar, 1976). The results of the multiple regression showed that retribution, along with several control variables, accounted for only 1.5 % of the

variance in the dependent variable death penalty attitude change among criminology majors. Furthermore, the F for this model was .776. Likewise, it was also found that retribution, along with the control variables, explained only 2.8 % of the variance in the death penalty attitude change among non-criminology majors. The F for this model was 1.047. These scores and alpha levels present the possibility that none of the independent variables, including retribution, is significant. This indicates that a participant's level of retribution was not relevant to the likelihood that he or she would exhibit change in their death penalty attitude at post-test. This finding is contrary to the findings of previous research and, likewise, suggests that Hypothesis 9 was not supported in this research study. A more detailed discussion of these results is provided in Chapter VI.

Hypothesis 10: Attitude Strength

Hypothesis 10 predicted that those students who had strong death penalty attitudes would not exhibit statistically significant change in level of death penalty support at post-test. Previous research on attitude strength has indicated that attitudes that are held strongly are more difficult to change than are weakly held attitudes (Bizer & Krosnick, 2001). Further, research has indicated that those with strong attitudes are more likely to dismiss new information that counters their current beliefs (Lord et al., 1979). The results of the multiple regression showed that attitude strength, along with several control variables and the retribution variable, accounted for only 1.6 % of the variance in the dependent variable death penalty attitude change among criminology majors. Furthermore, the F for this model was .683. Similarly, among non-criminology majors attitude strength, along with the control variables and retribution variable, explained only 4 % of the variance in death penalty attitude change, with an F score of 1.181. These

scores and alpha levels present the possibility that none of the independent variables, including attitude strength, is significant. This indicates that a participant's attitude strength was not relevant to the likelihood that he or she would exhibit change in their death penalty attitude at post-test. This finding does not support the results of previous research and, likewise, indicates that Hypothesis 10 was not supported in this research study. A more detailed discussion of these results is provided in Chapter VI.

Summary

The analysis for this study provided some interesting findings. In general, it was shown that the participants in the study, on average, had moderate knowledge of the death penalty and its surrounding issues. It was also found that, overall, when given some information about the cost of the death penalty and socioeconomic discrimination in application of the punishment, participants exhibited a statistically significant decrease in death penalty support, although not a huge absolute change. Further, it was found that, when the effects of the different types of death penalty information were examined separately, only those participants who were exposed to information about socioeconomic discrimination and cost exhibited a statistically significant decrease in death penalty support. An unexpected finding was that students who received information about wrongful capital convictions and racial discrimination did not exhibit a statistically significant reduction in death penalty support. Although socioeconomic discrimination and cost caused the greatest statistically significant change in death penalty support at post-test, it was also found that the type of information provided to participants was not particularly important to the degree of change in their death penalty attitudes between pre- and post-test.

Another interesting finding is that retribution and attitude strength did not explain the variation in change in death penalty support between pre- and post-test. In other words, the degree to which participants' death penalty support changed could not be explained either by their level of retribution or the strength of their death penalty attitude.

A discussion of the findings from Chapter V will be presented in Chapter VI. A summary of the findings, methodological and educational implications, and strengths and limitations of the current study will be discussed. Directions for future research will also be presented.

CHAPTER VI

DISCUSSION AND CONCLUSIONS

In a democratic nation such as the United States, issues of public support are essential to the determination of the constitutionality and appropriateness of punishment. As Justice Thurgood Marshall stated in the 1972 *Furman v. Georgia* decision, a punishment that is otherwise deemed appropriate may still be invalid if popular sentiment abhors it. Marshall's statement implies that society's view of a punishment is so important that an unfavorable view of a punishment may call for revision, or even abolition, of that punishment. Such issues of public support have been present in discussions of punishment, including the death penalty, for centuries.

Public views of the death penalty have influenced death penalty practices in many ways since the first documented execution in 1608. The public's changing views of death penalty practices have, in part, led to the abolition of the offense for property offenders in the 1820s, the movement of executions from public squares to private jail yards in the mid-19th century, the abolition of the penalty in fifteen states, changes in the primary methods of execution, and, most importantly, the temporary abolition of the punishment from 1972 until 1976 following the *Furman v. Georgia* decision (Banner, 2002; Costanzo & White, 1994; Paternoster et al., 2008). It was in that 1972 Supreme Court decision that Justice Marshall made his remarks about the importance of public views of punishment and, additionally, put forth his statements that would eventually become known as the Marshall hypothesis. To reiterate, Marshall made the following three predictions in his decision: 1) Americans know little about the death penalty; 2) If Americans were educated about the purposes and shortcomings of the punishment they

would conclude that it is “shocking, unjust, and unacceptable”; and 3) Those whose death penalty support is based largely upon a belief in retribution would be least likely to change their views in light of information about the punishment (*Furman v. Georgia*, 1972).

Since Justice Marshall put forth his hypothesis, numerous empirical studies have focused on its testing. Generally, studies of this nature have found support for the first and third parts of Marshall’s hypothesis, but support for the second part of his hypothesis has not been as constant. While some researchers have found modest decreases in death penalty support after exposure to information about the death penalty, others have not (Bohm, 1989; Bohm et al., 1991; Bohm & Vogel, 1994; Cochran et al., 2006; Lambert & Clarke, 2001; Sandys, 1995; Sarat & Vidmar, 1976; Vidmar & Dittenhoffer, 1981; Wright et al., 1995). The focus of the present study was to take another look at the Marshall hypothesis and to expand upon the results of past research by addressing some of the limitations in some of these studies. Specifically, this research used an experimental design to examine the effects of various kinds of information on student death penalty attitudes. Further, this study attempted to isolate which factor may be most important to affecting change in death penalty attitudes and examined the impact that retributiveness and attitude strength had on the malleability of death penalty attitudes. This study produced a number of interesting findings, which will be discussed in the present chapter along with educational implications, strengths and limitations of the current study, and directions for future research.

Discussion of Research Findings

The results of this research indicate that students who received information about socioeconomic discrimination in application of the death penalty and the high cost of the punishment were the most likely to exhibit change in their death penalty attitudes at post-test. Conversely, students who received information about wrongful capital convictions, racial discrimination in application of the death penalty, and the lack of a general deterrent impact of the punishment, as well as those who received information about all five of the death penalty factors together, did not exhibit statistically significant change in their attitudes at post-test. A brief discussion of these and other important findings of the present research is presented here.

Death Penalty Knowledge

Previous studies testing the Marshall hypothesis have shown participants to have little knowledge of the death penalty and its surrounding issues. The present study also attempted to examine this assertion by using the death penalty knowledge scale, which has been used in other studies of this nature (Wright et al., 1995). This study examined death penalty knowledge separately for criminology and non-criminology majors since criminology majors likely have been exposed to more information about the punishment and, therefore, possess a greater deal of such knowledge. It was found that criminology majors had moderate knowledge of the death penalty, while non-criminology majors appeared to have less than moderate knowledge about the punishment.

While this finding appears to provide support for previous research, the reliability test showed that the death penalty knowledge scale was not reliable, indicating that the items comprising the scale were not measuring the same underlying construct. In light of

this finding, it is important that future research of this nature reexamine the death penalty knowledge scale. Because death penalty knowledge is one of the primary independent variables in this type of research, it is essential that a reliable measure is produced to help ensure the validity of the results of such research. Further, it is important to note that previous studies of this nature have employed this same knowledge scale and have not reported its reliability. It is possible that, if this scale is not reliable as was shown in the present research, the results of these past studies might be affected.

Wrongful Convictions

One of the most unexpected findings in this research was that students who received information about wrongful capital convictions did not exhibit a statistically significant reduction in death penalty support at post-test. Previous research has shown information about wrongful capital convictions to be one of the factors most important to death penalty attitude change (Bohm, 1989; Bohm et al., 1991; Bohm & Vogel, 1994; Sandys, 1995). While students who were exposed to information about wrongful capital convictions did exhibit a decrease in death penalty support, that decrease was not found to be statistically significant.

One possible explanation for this finding is the fact that the students in this study seemed to have a fairly high degree of knowledge about wrongful capital convictions with a mean score of .87 out of a possible 1. This increased knowledge is likely a result of amplified media attention to wrongful capital convictions over the past decade. As was discussed in Chapter II, former Illinois Governor George Ryan implemented a moratorium on death sentences in 2000 and emptied the state's death row in 2003 after realizing that numerous innocent people had been sentenced to death (Hall, 2005).

Likewise, many states have proposed legislation to abolish the death penalty, in part, because of the possibility of wrongful capital convictions. In March 2009, New Mexico Governor Bill Richardson signed a bill abolishing the death penalty in the state, citing known instances of wrongful conviction as part of his motivation (Death Penalty Information Center, 2009).

Such changes in death penalty legislation, as well as the reason for these changes, have been well publicized throughout the past decade, and it is likely that the general public holds more knowledge about wrongful capital convictions now than in past years. A recent Gallup poll provides some support for the idea that the public possesses an increased knowledge of wrongful capital convictions. The poll indicated that 59 % of respondents thought that an innocent person had been executed in the United States in the past five years (Gallup Organization, 2009). If participants in the present study already possessed an increased degree of knowledge about wrongful capital convictions, then it makes sense that those exposed to this information would not exhibit a statistically significant change in death penalty support at post-test. Thus, it is possible that the lack of a statistically significant change in death penalty support among those in the wrongful convictions group may be due to pre-existing knowledge about this factor among participants.

Racial Discrimination

Along with information about wrongful capital convictions, information about racial discrimination in application of the death penalty has been shown to be one of the factors most likely to produce change in death penalty attitudes (Bohm, 1989; Bohm et al., 1991; Bohm & Vogel, 1994; Sandys, 1995). As such, it was hypothesized in the

present study that those who received information about racial discrimination would exhibit a statistically significant decrease in death penalty support at post-test. While those who received information about this factor did exhibit a decrease in death penalty support, that decrease was not found to be statistically significant.

The racial composition of the student population examined in this study might explain the lack of support for this hypothesis. The university that was examined in the present study is comprised primarily of white students, with only 13 % of students of a minority race. With such a low degree of minority representation among participants in this study, it is possible that respondents were less concerned about and, thus, less affected by, the idea of racial discrimination in application of the death penalty. The vast majority of students enrolled at the university are white and, thus, it is possible that exposure to information about racial discrimination in application of the death penalty had less of an impact on students since they would be unlikely to experience or be able to identify with, such discrimination.

While exposure to information about racial discrimination in the application of the death penalty was not found to cause statistically significant change in death penalty attitudes, as noted above, it is likely that this finding may be due to the lack of racial diversity at the university in question. It is possible that, had the sample included a greater number of minority individuals, the results may have been different. As such, future research examining the effects of information on death penalty attitudes should include information about racial discrimination and, perhaps, should attempt to ascertain whether such information is more likely to affect minority individuals than those who are white.

Socioeconomic Discrimination

Previous studies have not attempted to assess the effects of information about socioeconomic discrimination in application of the death penalty specifically on death penalty attitudes. However, based upon the fact that racial discrimination has been shown to be particularly important to changing death penalty attitudes and the fact that there is considerable support for there being some forms of socioeconomic bias in the criminal justice system, it seemed logical that information about socioeconomic discrimination might also be important to death penalty attitudes. As such, it was hypothesized that students who received information about socioeconomic discrimination in application of the death penalty would exhibit a statistically significant decrease in death penalty support. This hypothesis was supported by the present research.

This finding makes sense when previous research regarding racial discrimination is taken into account, but the socioeconomic status of the majority of students at the university examined in this study might also help explain this result. Students at the university studied in this research come predominantly from blue-collar families. Therefore, it is possible that students who received information about socioeconomic discrimination were affected by this information because they were able to understand and identify with the idea of being discriminated against in this way given their own background and socioeconomic status. It is possible that students of a higher socioeconomic status may not exhibit the same reduction in death penalty support after exposure to information about socioeconomic discrimination. This possibility should be further explored and is a possible direction for future research.

Cost

Contrary to previous research, the present study indicated that exposure to information about the high cost of the death penalty resulted in a statistically significant decrease in death penalty support at post-test. Based upon the findings of previous research, it was hypothesized that students exposed to information about the cost of the death penalty would not exhibit a statistically significant reduction in death penalty support. The results of this study were not in the hypothesized direction.

One likely explanation for this finding is the condition of the United States' economy at the time that the study was conducted. The United States has been in an economic recession since 2007, and many claim that the current recession is the worst since World War 2 (Recession.org, 2010). As such, many Americans have become increasingly concerned with financial matters. A 2010 Gallup poll provides support for the idea that Americans are particularly concerned with the United States' economy. When respondents were asked about the most important problems facing the United States, the economy was the most frequent response, with 26 % of respondents mentioning it (Gallup Organization, 2010). Because financial matters have become such a significant concern to Americans over the past three years, it is possible that the cost of the death penalty has also become an increasingly important issue, specifically with regards to support for the punishment. If Americans are currently very concerned with financial matters generally, it makes sense that they might show more concern about the financial implications of the death penalty than they have previously.

All Information

Previous research has indicated that, when given a variety of information about the death penalty and its surrounding issues, people would exhibit a statistically significant decrease in death penalty support (Bohm, 1989; Bohm et al., 1991; Bohm & Vogel, 1994; Cochran et al., 2006; Lambert & Clarke, 2001; Sandys, 1995; Sarat & Vidmar, 1976; Vidmar & Dittenhoffer, 1981). The present research, however, indicated that students who received information about all five of the death penalty factors (wrongful capital convictions, racial discrimination, general deterrence, and cost) did not exhibit a statistically significant change in death penalty support at post-test. While this finding seems surprising at first, a look at the results of the other five experimental groups provides a possible explanation for this outcome.

As was discussed previously, exposure to only two of the five types of information caused statistically significant change in death penalty support at post-test. Students who received information about socioeconomic discrimination in application of the death penalty or cost of the death penalty exhibited a statistically significant decrease in death penalty support at post-test, while those who received information about wrongful capital convictions, racial discrimination in application of the death penalty, or the lack of a general deterrent impact of the death penalty did not. Additionally, while the decrease in death penalty support between the pre- and post-test was statistically significant for both the socioeconomic discrimination and cost groups, the effect size was within the small to medium range. Because the five factors caused little change in death penalty support separately, it is not especially surprising that exposure to information

about all five of these factors did not result in statistically significant change in death penalty support at post-test.

Most Important Information

The present study attempted to expand upon previous tests of the Marshall hypothesis by trying to isolate the type of information that is most pertinent to altering death penalty attitudes. No previous research study of this nature has made such an attempt. It was hypothesized that, among students who received information about only one of the five death penalty factors, those who received information about wrongful capital convictions would exhibit the greatest statistically significant change in death penalty support at post-test. However, the results of the present study indicate that, while the greatest amount of change in death penalty attitude between the pre- and post-test was among the group of students who received information about the cost of the death penalty, information type explained only 3 % of the variance in death penalty attitude from pre- to post-test. In other words, it does not appear that there was a significant difference in attitude change between the six experimental groups, and the type of information was not particularly important to the degree of change in death penalty attitudes. This finding was not in the hypothesized direction.

A potential explanation for this finding is that, in spite of Justice Marshall's claims, perhaps one's knowledge about the death penalty provides little basis for an individual's position on the punishment. In the current study, while there was an overall decrease in death penalty support from pre- to post-test among all of the experimental groups, that decrease, while statistically significant, had a negligible effect size. Similarly, previous research examining the effects of information on death penalty

attitudes have resulted only in modest decreases in death penalty support (Bohm, 1989; Bohm et al., 1991; Bohm & Vogel, 1994; Cochran et al., 2006; Lambert & Clarke, 2001; Sandys, 1995; Sarat & Vidmar, 1976; Vidmar & Dittenhoffer, 1981). Thus, it is possible that death penalty support is based largely on some other factor(s) and not an individual's knowledge about the punishment. If this were true, it would make sense that little difference would be seen between the different types of information to which students were exposed in the present study.

Retribution and Attitude Strength

Based upon previous research, it was hypothesized in this study that students whose death penalty support is based upon higher levels of retribution would not exhibit statistically significant change in level of death penalty support. In this study, it was found that, contrary to the findings of previous research, an individual's level of retributiveness did not explain the variation in their death penalty attitude. In other words, an individual's level of retributiveness was not related to whether or not an individual exhibited attitude change at the post-test. A possible explanation for this finding is that perhaps a belief in retribution does not, in fact, provide a significant basis for death penalty support. In other words, it is possible that individuals' death penalty support is based upon something other than their level of retributiveness.

It was also hypothesized that participants who had strong death penalty attitudes would not exhibit statistically significant change in death penalty attitudes. Previous research has shown that attitude strength may be important to the malleability of attitudes (Bizer & Krosnick, 2001). However, the present study indicated that attitude strength did not explain the variance in death penalty attitudes between the pre- and post-tests. To put

it simply, the strength of a person's death penalty attitude did not seem to be related to whether or not they exhibited change in attitude at post-test. A possible explanation for this surprising finding is that the strength of a person's death penalty attitude is not particularly important to whether or not they exhibit change in that attitude when exposed to new information. While previous research has shown attitude strength to be important to attitude change generally, no other study of this nature has attempted to examine the effects of attitude strength on death penalty attitude change after exposure to information about the punishment. Because the relationship between the strength of death penalty attitudes and the malleability of those attitudes has not been sufficiently studied, it should be examined in future research of this nature so that it might be more fully understood.

Educational Implications

Because the present study examined attitude change specifically among students, it is necessary to explore some of the educational implications of the study. It was found in the present study that criminology students had a moderate level of death penalty knowledge while non-criminology majors had a less than moderate level of death penalty knowledge. Because this study, and most others of this nature, have found at least some change in death penalty attitudes after exposure to information about the punishment, it is important that the relatively low level of death penalty knowledge be addressed. A finding of change in death penalty attitude after exposure to information about the death penalty indicates that, if individuals had more information about the penalty, their attitude about it may be different. Because so many criminology majors, and even some non-criminology majors, will go on to work in the criminal justice field where they may have the opportunity to shape or influence legislation, it is important that they have as much

knowledge about the death penalty so that any decisions that they may make are informed by this knowledge.

Likewise, it is also important to educate those who do not go on to work in the criminal justice field. In a democratic nation such as the United States where society has an opportunity to influence legislation, it is essential that the public have knowledge about the punishments that are implemented. The results of this research and other studies of this nature have presented the possibility that some individuals may hold different attitudes about the death penalty if they acquire additional knowledge about it. Introducing students to information about the death penalty in the classroom is an efficient and appropriate way to help students acquire knowledge about this ultimate punishment.

Additionally, this study found a negative correlation between a student's class standing and death penalty attitude. This finding indicates that students who have less education tend to hold attitudes that are more consistent with death penalty support. In other words, the further a student progresses through college, the less supportive of the death penalty they become. This finding alludes to the possibility that the practice of obtaining more knowledge in general may lead to less supportive views of the death penalty. This might be explained by the fact that students (specifically, criminology students) may acquire new knowledge about the issues surrounding the death penalty as they progress through college, and that new information may lead to a change in their attitudes. Likewise, the refinement of critical thinking that occurs during a student's college career might lead to their reconsideration of important issues such as the death penalty. Overall, this finding presents the possibility that additional education might be

related to changes in death penalty attitudes. While the current study did not specifically address this relationship, its examination in future research of this nature would be useful.

Strengths and Limitations

Strengths

This study was designed to address some of the limitations of previous research of this nature. First, stratified cluster sampling was used to obtain a more representative sample. Many studies that have examined the impact of information on death penalty attitudes have used convenience samples, studying students who sign up for death penalty classes at a university. This strategy greatly increases the likelihood of selection bias and limits the generalizability of the results. By using stratified cluster sampling, the researcher was able to produce a more representative sample and limit the possibility of sampling error.

Similarly, previous studies of the Marshall hypothesis have typically failed to include non-criminology majors or have used only a small number of non-criminology majors. A strength of the present research is that non-criminology majors were included in the sample along with criminology majors. Criminology majors accounted for 214 of the participants in the present research, while non-criminology majors accounted for 148 of participants. While the number of criminology majors exceeds that of non-criminology majors, this study was more successful than previous studies at capturing the views of non-criminology majors. This is an important distinction from previous research because of the likelihood that criminology majors differ from non-criminology majors in important ways. For example, as shown in the present research, criminology majors tended to have more death penalty knowledge than non-criminology majors and,

likewise, tended to have attitudes more consistent with death penalty support.

Criminology majors also had a higher degree of retributiveness and held stronger death penalty attitudes than non-criminology majors. It was useful to include the differing views of non-criminology majors in this study since many previous studies of this nature have not.

Additionally, only two studies examining the Marshall hypothesis have implemented an experimental design, with all others using a nonequivalent control group design. The use of a nonequivalent control group design presents the likelihood that the control and experimental groups are not equivalent at the outset and, therefore, makes it more difficult to assume that the results of the study are an effect of the experimental stimulus. The present study attempted to improve upon past research by using a randomized experimental design. According to Shadish, Cook, and Campbell (2002), using a randomized experiment helps the researcher to assume that the control and experimental groups are equivalent and, therefore, makes it easier to conclude that any results seen in the study are due to the experimental stimulus, rather than a pre-existing difference between the groups. Further, the randomized experiment is sometimes referred to as the “gold standard” in research (Shadish et al., 2002). In the present study, participants were randomly assigned to a control group or to one of six experimental groups. This step allowed the researcher to assume that the control group was equivalent to the experimental groups at the outset and, thus, that the results of the study were not due to a pre-existing difference but to the experimental stimulus employed in the study.

Another strength of this research is that it included information about several factors relating to the death penalty that have been neglected in some of the earliest

studies of the Marshall hypothesis. Specifically, information about wrongful capital convictions and racial discrimination in application of the death penalty have been left out of some studies but have been shown to be particularly important to death penalty attitudes in more recent studies of the Marshall hypothesis. As such, the researcher made sure to include this information in the present study.

Likewise, no previous study examining the Marshall hypothesis has attempted to ascertain which specific type of information has the most impact on death penalty attitudes. This study augmented previous literature by exploring this matter. While the present study only begins to explore this area, it is an important addition to the research on the Marshall hypothesis, and it would be valuable to further explore this issue in future research.

Finally, this research also sought to augment previous research by including a measure of attitude strength on the pre-test. Previous research has shown attitude strength to be a relevant factor to the malleability of attitudes (Bizer & Krosnick, 2000). Thus, it was thought that including a measure for attitude strength might help to further explain the relationship between information and death penalty attitudes. This study only begins to explore the complex relationship between death penalty attitude strength and death penalty attitude change, and future research should continue to explore this relationship.

Limitations

A significant limitation of this research is that data was collected only from one public university in the Northeast. The collection of data from only one very similar group of people makes it difficult to generalize the results of the research to other populations. It is unlikely, for example, that the results of this research could be

generalized to students at a private university in the Southwest as it is likely that those students would differ in important ways from students at the university studied in the present research.

Likewise, the university from which the sample was drawn for this study is made up of a relatively homogenous group of students. The majority of students who attend the university studied are white and had a middle-class upbringing. Additionally, the majority of students were between the ages of 18 and 24. Due to the lack of diversity with regards to race, socioeconomic status, and age, it was not possible to examine the effects of these variables on death penalty attitude change. Similarly, the results of this study are not generalizable to universities that are more diverse with regards to race, socioeconomic status, or age.

A third limitation of the present research is that the death penalty knowledge scale that was used was found to be unreliable. When tested for reliability, the Cronbach's alpha for this scale was only .490, which is not an acceptable level. This indicated that the death penalty knowledge scale was not reliable, and the items that made up the scale were likely not measuring the same constructs. As such, the death penalty knowledge variable was excluded from the present research. Future research of this nature should try to make improvements to the reliability of these scales by using additional items and improving item wording.

Directions for Future Research

Researchers who attempt to examine the Marshall hypothesis in the future might take a number of directions. First, it would be useful to replicate this study at other universities or with the general public. As discussed previously, the results of this study

are not generalizable to other universities or to the general public. As such, it would be useful to examine other populations to determine how they may differ from the population studied in this research.

It is also essential that future researchers attempt to improve the reliability of the death penalty knowledge scale used in this study. This scale is important to studies of the Marshall hypothesis and, without a reliable measure of such an important variable, the results of studies that use this scale are uncertain. The development of a more reliable death penalty knowledge scale would provide for more valid results in future studies of the Marshall hypothesis.

Likewise, it would be valuable for future researchers to further explore the possibility of one type of death penalty information being more important to changing death penalty attitudes. The present research did not find that the type of information was particularly important to whether participants' death penalty attitudes changed; however, a firm conclusion about this matter cannot be made based upon the results of a single study. Thus, future research should continue to explore this matter to determine whether information type is important to whether death penalty attitudes change or if the results of the present research hold true in other studies of this nature.

Similarly, future research should include a measure of attitude strength to further explore the relationship between death penalty attitude strength and attitude change. As was mentioned previously, the current study is the first of its kind to include a measure of attitude strength. While this study did not find attitude strength to be relevant to whether an individual's death penalty attitude changed after exposure to information about the

punishment, additional research is needed to establish a better understanding of the effect of death penalty attitude strength on attitude change.

Future researchers in this area might also consider the means of information distribution in studies of the Marshall hypothesis. The present study was the first of its nature to utilize vignettes as a means of distributing information about the death penalty to students. Previous research has used a variety of means including college classes, essays, and videos. It would be useful for future research to use vignettes as a means of distributing information to students to further explore how this particular method might affect the results of the study. This would help to determine the utility of vignettes as a vehicle of information in studies of the Marshall hypothesis.

Finally, future researchers should consider further exploring the impact of information about cost on death penalty attitudes. No other study of the Marshall hypothesis has found information about cost to be particularly important to whether participants' death penalty attitudes changed. The present study, however, indicated that providing information about the cost of the death penalty resulted in the greatest statistically significant decrease in death penalty support between pre- and post-test. While it is possible that this finding is a result of the economic state of the United States at the time the study was conducted, it would be interesting to further explore this finding to determine if it holds true.

Conclusions

The death penalty has been a controversial topic in the United States since its inception, and public opinion about the death penalty has affected its use for centuries. While the abolition of the death penalty after the 1972 *Furman* decision was influenced

by the decreasing degree of public support for the death penalty at that time, recent public opinion polls show that the majority of Americans currently support the death penalty (Gallup, 2008). Public opinion polls have also shown that Americans' support for the death penalty is based upon a variety of things including the general deterrent capacity of the punishment, a belief in retribution, the punishment's superior potential for incapacitation, and the perceived lower cost of the penalty than life imprisonment (Gallup, 2003). As was discussed previously in Chapter II, however, many of the beliefs that the public hold about the death penalty, specifically regarding the general deterrent impact of the punishment and the low cost of the death penalty, are inaccurate. Thus, Justice Thurgood Marshall's hypothesis that an informed public would generally reject the death penalty as an acceptable punishment seems logical.

Since Marshall put forth his hypothesis in the 1972 *Furman* decision, many researchers have attempted to assess its validity. The present study was no exception. Specifically, the researcher was interested in determining whether participants had little knowledge about the death penalty, whether information caused change in participants' death penalty attitudes, which type of death penalty information was most important to changing death penalty attitudes, and whether retribution and attitude strength could explain variation in participants' death penalty attitudes.

This study was not able to determine the degree of death penalty knowledge that participants had because the death penalty knowledge scale was found to be unreliable. However, the results of the present study do indicate that exposure to information about the death penalty results in a modest decrease in death penalty support. This result lends support to many other studies of the Marshall hypothesis, which have had similar results

support (Bohm, 1989; Bohm et al., 1991; Bohm & Vogel, 1994; Cochran et al., 2006; Lambert & Clarke, 2001; Sandys, 1995; Sarat & Vidmar, 1976; Vidmar & Dittenhoffer, 1981). While a decrease in death penalty support after exposure to information about the punishment has been seen in many studies of the Marshall hypothesis, it is important to recognize that, in all of these studies, the decrease in support has been fairly small. The present study also found that the type of death penalty information received, the individual's level of retributiveness, and the strength of their death penalty attitude were not particularly important to whether or not their death penalty attitude changed. While this and similar studies provide some degree of support for the Marshall hypothesis, the small degree of change in death penalty attitudes that is often seen after exposure to death penalty information presents the possibility that these attitudes are based largely on some construct other than knowledge about the punishment. As such, it is possible that Justice Marshall's claim that an educated public would reject the death penalty is incorrect.

References

- Acker, J.R. (1996). The death penalty: A 25-year retrospective and a perspective on the future. *Criminal Justice Review*, 21, 139-160.
- Alexander, C.S. & Becker, H.J. (1978). The use of vignettes in survey research. *Public Opinion Quarterly*, 42, 93-104).
- Bachman, R. & Paternoster, R. (1997). *Statistics for criminology and criminal justice*. Boston: McGraw Hill.
- Bailey, W.C. (1982). Capital punishment and lethal assaults against police. *Criminology*, 19, 608-625.
- Bailey, W.C. (1983). Disaggregation in deterrence and death penalty research: The case of murder in Chicago. *Journal of Criminal Law and Criminology*, 74, 827-859.
- Bailey, W.C. (1990). Murder, capital punishment and television: Execution publicity and homicide rates. *American Sociological Review*, 55, 628-633.
- Bailey, W.C. & Peterson, R.D. (1987). Police killings and capital punishment: The post-Furman period. *Criminology*, 25, 1-25.
- Bailey, W.C. & Peterson, R.D. (1994). Murder, capital punishment, and deterrence: A review of the evidence and an examination of police killings. *Journal of Social Issues*, 50, 53-74.
- Bailey, W.C. (1998). Deterrence, brutalization, and the death penalty: Another examination of Oklahoma's return to capital punishment. *Criminology*, 36, 711-733.
- Baldus, D., Pulaski, C., & Woodworth, G. (1983). Comparative review of death sentences: An empirical study of the Georgia experience. *Journal of Criminal Law and Criminology*, 74, 661-753.
- Baldus, D.C. & Cole, J.W. (1975). Statistical evidence on the deterrent effect of capital punishment: A comparison of the work of Thorsten Sellin and Isaac Ehrlich on the deterrent effect of capital punishment. *Yale Law Journal*, 85, 170-186.
- Baldus, D.D. & Woodworth, G. (1998). Racial discrimination and the death penalty: An empirical and legal overview. In Acker, J.R., Bohm, R.M., & Lanier, C.S. (Eds.). *America's experiment with capital punishment* (pp. 385-416). Durham: Carolina Academic Press.
- Banner, S. (2002). *The death penalty: An American history*. Cambridge, MA: Harvard University Press.

- Barkan, S.E. & Cohn, S.F. (1994). Racial prejudice and support for the death penalty by whites. *Journal of Research in Crime and Delinquency*, 31, 202-209.
- Bassili, J. & Krosnick J. (2000). Do strength-related attitude properties determine the susceptibility to response effects? New evidence from response latency, attitude extremity, and aggregate indices. *Political Psychology*, 21, 107-132.
- Bassili, J. & Roy J. (1998). On the representation of strong and weak attitudes about policy in memory. *Political Psychology*, 19, 669-681.
- Bassili, J. (1996). Meta-judgmental versus operative indexes of psychological attributes: The case of measures of attitude strength. *Journal of Personality and Social Psychology*, 71, 637-653.
- Baze v. Rees, 553, U.S. (2008).
- Bedau, H.A. (1964). *The death penalty in America: An Anthology*. Chicago: Aldine.
- Bedau, H.A. (2004). An Abolitionist's Survey of the Death Penalty in America Today. Pp. 15-50, In Hugo A. Bedau and Paul G. Cassell (Eds.), *Debating the Death Penalty*. New York: Oxford University Press.
- Bedau, H.A. & Radelet, M.L. (1987). Miscarriages of justice in potentially capital cases. *Stanford Law Review*, 41, 161-170.
- Berns, W. (1980). Defending the death penalty. *Crime and Delinquency*, 26, 503-511.
- Berk, R. (2005). New claims about executions and general deterrence: Déjà vu all over again? *Journal of Empirical Legal Studies*, 2, 303-330.
- Bizer, G. Krosnick, J. (2001). Exploring the structure of strength-related attitude features: The relation between attitude importance and attitude accessibility. *Journal of Personality and Social Psychology*, 81, 566-586.
- Bohm, R.M. (1987). American death penalty attitudes: A critical examination of recent evidence. *Criminal Justice and Behavior*, 14, 380-396.
- Bohm, R.M. (1989). The effects of classroom instruction and discussion on death penalty opinions: A teaching note. *Journal of Criminal Justice*, 17, 123-131.
- Bohm, R.M. (1990). Death penalty opinions: A classroom experience and public commitment. *Sociological Inquiry*, 60, 285-297.
- Bohm, R.M. (1994). Capital punishment in two judicial circuits in Georgia: A description of the key actors and the decision-making process. *Law and Human Behavior*, 18,

319-338.

- Bohm, R.M. (2003). American Death Penalty Opinion: Past, Present, and Future. Pp. 27-54, In James R. Acker, Robert M. Bohm, and Charles S. Lanier (Eds.), *America's Experiment with Capital Punishment: Reflections on the Past, Present, and Future of the Ultimate Penal Sanction*. Durham, NC: Carolina Academic Press.
- Bohm, R.M., Clark, L.J., & Aveni, A.F. (1991). Knowledge and death penalty opinion: A test of the Marshall hypotheses. *Journal of Research in Crime and Delinquency*, 28, 360-387.
- Bohm, R.M. & Vogel, R.E. (1994). A comparison of factors associated with uninformed and informed death penalty opinions. *Journal of Criminal Justice*, 22, 125-143.
- Bohm, R.M. & Vogel, R.E. (2004). More than ten years after: The long-term stability of informed death penalty opinions. *Journal of Criminal Justice*, 32, 307-327.
- Bohm, R.M., Vogel, R.E., & Maisto, A.A. (1993). Knowledge and death penalty opinion: A panel study. *Journal of Criminal Justice*, 21, 29-45.
- Bowers, W.J. & Pierce, G.L. (1980). Deterrence or brutalization: What is the effect of executions? *Crime and Delinquency*, 26, 453-484.
- Cassell, P.G. (2004). In Defense of the Death Penalty. Pp. 183-217, In Hugo A. Bedau and Paul G. Cassell (Eds.), *Debating the Death Penalty*. New York: Oxford University Press.
- Cochran, J.K. & Chamlin, M.B. (2000). Deterrence and brutalization: The dual effects of executions. *Justice Quarterly*, 17, 685-706.
- Cochran, J.K., Chamlin, M.B., & Seth, M. (1994). Deterrence or brutalization? An impact assessment of Oklahoma's return to capital punishment. *Criminology*, 32, 107-134.
- Cochran, J.K., Sanders, B., & Chamlin, M.B. (2006). Profiles in change: An alternative look at the Marshall hypotheses. *Journal of Criminal Justice Education*, 17, 205-226.
- Cohen, J. (1992). A power primer. *Psychological Bulletin*, 112, 155-159.
- Conroy, F.R. & Smith, E.R. (2007). Attitude representation: Attitudes as patterns in a distributed, connectionist representational system. *Social Cognition*, 25, 718-735.
- Costanzo, M. (1997). *Just revenge: Costs and consequences of the death penalty*. New York: St. Martin's Press.

- Costanzo, M. & White, L.T. (1994). An overview of the death penalty and capital trials: history, current status, legal procedures, and cost. *Journal of Social Issues*, 50, 1-18.
- Culver, J.H. (1999). Twenty years after Gilmore: Who is being executed? *American Journal of Criminal Justice*, 24, 1-14.
- Dann, R.H. (1935). The deterrent effect of capital punishment. *Friends Social Service Series*, 29, 1-20.
- Davis, M. (2002). A sound retributive argument for the death penalty. *Criminal Justice Ethics*, 22-26.
- Death Penalty Information Center. (2008). *State By State Information*. Retrieved October 9, 2008. <http://www.deathpenaltyinfo.org/state/>.
- Death Penalty Information Center. (2009). *Recent Legislative Activity*. Retrieved March 9, 2009. <http://www.deathpenaltyinfo.org/recent-legislative-activity>.
- Death Penalty Information Center. (2009). *Race of Death Row Inmates Executed Since 1976*. Retrieved April 5, 2009. <http://www.deathpenaltyinfo.org/race-death-row-inmates-executed-1976>.
- Decker, S.H. & Kohfeld, C.W. (1990). The deterrent effect of capital punishment in the five most active execution states: A time series analysis. *Criminal Justice Review*, 15, 173-191.
- DeVellis, R. F. (2003). *Scale development: Theory and applications* (2nd Ed.). Thousand Oaks, CA: Sage Publications, Inc.
- Dezhbakhsh, H., Rubin, P.H., & Shepherd, J.M. (2003). Does capital punishment have a deterrent effect? New evidence from postmoratorium panel data. *American Law and Economics Review*, 5, 344-376.
- Dillman, D.A. (2007). *Mail and internet surveys: The tailored design method*. Hoboken, NJ: John Wiley and Sons, Inc.
- Eberhardt, J.L., Davies, P.G., Purdie-Vaughns, V.J., & Johnson S.L. (2006). Looking deathworthy: Perceived stereotypicality of black defendants predicts capital-sentencing outcomes. *Psychological Science*, 17, 383-386.
- Ehrlich, I. (1975). The deterrent effect of capital punishment: A question of life and death. *The American Economic Review*, 65, 397-417.
- Ehrlich, I. (1977). Capital punishment and deterrence: Some further thoughts and

- additional evidence. *Journal of Political Economy*, 85, 741-788.
- Ellsworth, P.C. & Gross, S.R. (1994). Hardening of the attitudes: Americans' views on the death penalty. *Journal of Social Issues*, 50, 19-52.
- Ellsworth, P.C. & Ross, L. (1983). Public opinion and capital punishment: A close examination of the views of abolitionists and retentionists. *Crime and Delinquency*, 29, 116-169.
- Finkelstein, C. (2002). Death and retribution. *Criminal Justice Ethics*, 12-21.
- Furman v. Georgia, 408, U.S. 238 (1972).
- Galliher, J.F., Ray, G., & Cook, B. (1992). Abolition and reinstatement of capital punishment during the progressive era and early 20th century. *The Journal of Criminal Law and Criminology*, 83, 538-576.
- Gallup Organization. (2008). *The Death Penalty*. Retrieved September 15, 2008. <http://www.gallup.com/poll/1606/Death-Penalty.aspx>.
- Gallup Organization. (2010). "Jobs Drops to Number 2 on Americans' List of Top Problems." Retrieved May 17, 2010. <http://www.gallup.com/poll/127949/Jobs-Drops-No-Americans-List-Top-Problems.aspx>
- Gibbs, J. (1978). The death penalty, retribution, and penal policy. *The Journal of Criminal Law and Criminology*, 69, 291-299.
- Gonzalez, R. (2009). *Data analysis for experimental design*. New York: Guilford Press.
- Graves, W.F. (1956). A doctor looks at capital punishment. *Medical Arts and Sciences*, 10, 137-141.
- Gross, S.R., Jacoby, K., Matheson, D.J., Montgomery, N., & Patil, S. (2005). Exonerations in the United States 1989 through 2003. *Journal of Criminal Law and Criminology*, 95, 523-560.
- Hall, B.R. (2005). From William Henry Furman to Anthony Porter: The changing face of the death penalty debate. *Journal of Criminal Law and Criminology*, 95, 371-380.
- Hoffman, J.L. (2005). Protecting the innocent: The Massachusetts Governor's Council Report. *Journal of Criminal Law and Criminology*, 95, 561-585.
- Horwitz, E.L. (1973). *Capital punishment, U.S.A.* Philadelphia: J.B. Lippincott Company.
- King, D.R. (1978). The brutalization effect: Execution publicity and the incidence of homicide in South Carolina. *Social Forces*, 57, 683-687.

- Lambert, E. & Clarke, A. (2001). The impact of information on an individual's support of the death penalty: A partial test of the Marshall hypothesis among college students. *Criminal Justice Policy Review*, 12, 215-234.
- Lanier, C.S. & Acker, J.R. (2004). Capital punishment, the moratorium movement, and empirical questions: Looking beyond innocence, race, and bad lawyering in death penalty cases. *Psychology, Public Policy, and Law*, 10, 577-617.
- Layson, S.K. (1985). Homicide and deterrence: A reexamination of the United States time-series evidence. *Southern Economic Journal*, 52, 68-89.
- Lempert, R. (1983). The effect of executions on homicides: A new look in an old light. *Crime and Delinquency*, 29, 88-115.
- Lewis-Beck, M.S. (1980). *Applied regression: An introduction*. Thousand Oaks, CA: Sage.
- Linders, A. (2002). The execution spectacle and state legitimacy: The changing nature of the American execution audience, 1833-1937. *Law and Society Review*, 36, 607-656.
- Lynch, M. & Haney, C. (2000). Discrimination and instructional comprehension: Guided discretion, racial bias, and the death penalty. *Law and Human Behavior*, 24, 337-349.
- Mallicoat, S.L. & Radelet, M.L. (2004). From the field: The growing significance of public opinion for death penalty jurisprudence. *Journal of Crime and Justice*, 27, 119-130.
- McCoy, C. & Lichtenberg, I. (1999). Providing effective habeas counsel for indigents in capital cases. *The Justice System Journal*, 21, 81-87.
- McFarland, S.G. (1983). Is capital punishment a short-term deterrent to homicide? A study of the effects of four recent executions. *Journal of Criminal Law and Criminology*, 74, 1014-1030.
- Microsoft. (2009). *Interactive Map*. Retrieved April 5, 2009. <http://www.msnbc.msn.com/id/24543231/>.
- Miller-Potter, K. (2005). Capital Punishment: The Myth of Murder As Effective Crime Control. Pp. 329-355, In Victor E. Kappeler and Gary W. Potter (Eds.), *The Mythology of Crime and Criminal Justice*. Long Grove, IL: Waveland Press, Inc.
- Mocan, H.N. & Gittings, R.K. (2003). Getting off death row: Commuted sentences and the deterrent effect of capital punishment. *Journal of Law and Economics*, 453,

- 453-478.
- Monroe, B.M. & Read, S.J. (2008). A general connectionist model of attitude structure and change: The ACS (attitudes as Constraint Satisfaction) model. *Psychological Review*, *115*, 733-759.
- Murray, G.R. (2003). Raising considerations: Public opinion and the fair application of the death penalty. *Social Science Quarterly*, *84*, 753-767.
- Ogloff, J.R.P. & Chopra, S.R. (2004). Stuck in the Dark Ages: Supreme court decision making and legal developments. *Psychology, Public Policy, and Law*, *10*, 379-416.
- Passell, P. (1975). The deterrent effect of capital punishment: A statistical test. *Stanford Law Review*, *28*, 61-80.
- Passell, P. & Taylor, J.B. (1977). The deterrent effect of capital punishment: Another view. *American Economic Review*, *67*, 445-451.
- Paternoster, R., Brame, R., & Bacon, S. (2008). *The death penalty: America's experience with capital punishment*. New York: Oxford University Press.
- Peterson, R.D. & Bailey, W.C. (1988). Murder and capital punishment in the evolving context of the post-Furman era. *Social Forces*, *66*, 774-807.
- Peterson, R.D. & Bailey, W.C. (2003). Is Capital Punishment and Effective Deterrent for Murder? An Examination of Social Science Research. Pp. 251-282, In James R. Acker, Robert M. Bohm, and Charles S. Lanier (Eds.), *America's Experiment with Capital Punishment: Reflections on the Past, Present, and Future of the Ultimate Penal Sanction*. Durham, NC: Carolina Academic Press.
- Phillips, D.P. (1980). The deterrent effect of capital punishment: New evidence on an old controversy. *American Journal of Sociology*, *88*, 165-167.
- Recession.org (2010). *History of U.S. Recession*. Retrieved on May 17, 2010.
<http://recession.org/history/late-2000s-recession>
- Roper v. Simmons, 543, U.S. 551 (2005).
- Sandys, M. (1995). Attitudinal change among students in a capital punishment class: It may be possible. *American Journal of Criminal Justice*, *20*, 37-55.
- Sarat, A. & Vidmar, N. (1976). Public opinion, the death penalty, and the Eighth Amendment: Testing the Marshall hypothesis. *Wisconsin Law Review*, *17*, 171-197.

- Sellin, T. (1959). *The death penalty*. Philadelphia: The American Law Institute.
- Sellin, T. (1967). *Capital punishment*. New York: Harper and Row.
- Shadish, W.R., Cook, T.D., & Campbell, D.T. (2002). *Experimental and quasi-experimental designs for generalized causal inference*. Boston: Houghton Mifflin.
- Smith, M.D. & Wright, J. (1992). Capital punishment and public opinion in the post-Furman era: Trends and analyses. *Sociological Spectrum, 12*, 127-144.
- Sorell, T. (2002). Two ideals and the death penalty. *Criminal Justice Ethics, 27-35*.
- Sorenson, J., Wrinkle, R., Brewer, V., & Marquart, J. (1999). Capital punishment and deterrence: Examining the effects of executions on murder in Texas. *Crime and Delinquency, 45*, 481-493.
- Van Den Haag, E. (1985). Refuting Reiman and Nathanson. *Philosophy and Public Affairs, 14*, 165-176.
- Vidmar, N. & Dittenhoffer, T. (1981). Informed public opinion and death penalty attitudes. *Canadian Journal of Criminology, 23*, 43-56.
- Vollum, S., Longmire, D.R., & Buffington-Vollum, J. (2002). Confidence in the death penalty and support for its use: Exploring the value-expressive dimension of death penalty attitudes. *Justice Quarterly, 21*, 521-546.
- Warden, R. (2005). Illinois death penalty reform: How it happened, what is promises. *Journal of Criminal Law and Criminology, 95*, 381-426.
- Wright, H.O., Bohm, R.M., & Jamieson, K.M. (1995). A comparison of uninformed and informed death penalty opinions: A replication and expansion. *American Journal of Criminal Justice, 20*, 57-87.
- Young, R.L. (2004). Guilty until proven innocent: Conviction orientation, racial attitudes, and support for capital punishment. *Deviant Behavior, 25*, 151-167.
- Yunker, J. (1976). Is the death penalty a deterrent to homicide? Some time series evidence. *Journal of Behavioral Economics, 5*, 1-32.
- Zaller, J.R. (1992). *The Nature and Origins of Mass Opinion*. Cambridge, U.K.: Cambridge University Press.

APPENDIX A
Pre-test

Part A Directions: Below are a series of statements about your attitude toward the death penalty. Please indicate the degree to which you agree or disagree with each statement by circling the number next to the response that best fits you. Please answer as honestly as possible. Keep in mind that there are no right or wrong answers.

1. I favor the death penalty for a person convicted of first-degree murder.
 - (1) Strongly Disagree
 - (2) Disagree
 - (3) Neither Disagree nor Agree
 - (4) Agree
 - (5) Strongly Agree

2. I could personally convict a person who would be sentenced to death.
 - (1) Strongly Disagree
 - (2) Disagree
 - (3) Neither Disagree nor Agree
 - (4) Agree
 - (5) Strongly Agree

3. I support a life without parole sentence as an alternative to the death penalty for a person convicted of first-degree murder.
 - (1) Strongly Disagree
 - (2) Disagree
 - (3) Neither Disagree nor Agree
 - (4) Agree
 - (5) Strongly Agree

4. I could personally witness an execution.
 - (1) Strongly Disagree
 - (2) Disagree
 - (3) Neither Disagree nor Agree
 - (4) Agree
 - (5) Strongly Agree

5. Compared to other social issues that are important to you, how important is the death penalty?
 - (1) Not At All Important
 - (2) Somewhat Unimportant
 - (3) Neither Unimportant nor Important
 - (4) Somewhat Important
 - (5) Very Important

Directions: Below are a series of statements about the use of the death penalty. Please indicate the degree to which you agree or disagree with each statement by circling the number next to the response that best fits you. Please answer as honestly as possible. Keep in mind that there are no right or wrong answers.

6. If a first-degree murderer is **not** executed, the friends or family of the victim are likely to take it upon themselves to seek revenge.

- (1) Strongly Disagree
- (2) Disagree
- (3) Neither Disagree nor Agree
- (4) Agree
- (5) Strongly Agree

7. All of the Nazi war criminals should have been executed for their “crimes against humanity.”

- (1) Strongly Disagree
- (2) Disagree
- (3) Neither Disagree nor Agree
- (4) Agree
- (5) Strongly Agree

8. Those who take a life should forfeit their own in return.

- (1) Strongly Disagree
- (2) Disagree
- (3) Neither Disagree nor Agree
- (4) Agree
- (5) Strongly Agree

9. Execution is okay if the state does it.

- (1) Strongly Disagree
- (2) Disagree
- (3) Neither Disagree nor Agree
- (4) Agree
- (5) Strongly Agree

10. Society has a right to take revenge when a first-degree murder has been committed.

- (1) Strongly Disagree
- (2) Disagree
- (3) Neither Disagree nor Agree
- (4) Agree
- (5) Strongly Agree

11. I feel a sense of personal outrage when a convicted murderer was sentenced to prison instead of death.

- (1) Strongly Disagree
- (2) Disagree

- (3) Neither Disagree nor Agree
- (4) Agree
- (5) Strongly Agree

12. There are some murderers whose death would give me a sense of personal satisfaction.

- (1) Strongly Disagree
- (2) Disagree
- (3) Neither Disagree nor Agree
- (4) Agree
- (5) Strongly Agree

13. An execution would make me sad, regardless of the crime the individual committed.

- (1) Strongly Disagree
- (2) Disagree
- (3) Neither Disagree nor Agree
- (4) Agree
- (5) Strongly Agree

Part C Directions: Below are a series of statements about the death penalty. Please indicate whether the following items are “true” or “false” by circling the corresponding number. If you don’t know whether an item is true or false, please circle “don’t know”.

14. Innocent people have been executed in error in the United States in the past 100 years.

- (1) True
- (2) False
- (3) Don’t Know

15. An African American person is more likely to receive the death penalty than a white person for the same crime.

- (1) True
- (2) False
- (3) Don’t Know

16. The killers of African American people are just as likely to receive the death penalty as the killers of white people.

- (1) True
- (2) False
- (3) Don’t Know

17. Poor people who commit murder are more likely to be sentenced to death than rich people who commit murder.

- (1) True
- (2) False
- (3) Don’t Know

18. Over the years, states that had the death penalty have shown lower murder rates than neighboring states that did not have the death penalty.

- (1) True
- (2) False
- (3) Don’t Know

19. Studies have shown that the rate of murder usually drops in the weeks following a well-publicized execution.

- (1) True
- (2) False
- (3) Don’t Know

20. After the Supreme Court struck down the death penalty in 1972, the murder rate in the U.S. showed a sharp downturn.

- (1) True
- (2) False
- (3) Don’t know

21. On the average, the death penalty costs the taxpayer more than life imprisonment.
- (1) True
 - (2) False
 - (3) Don't Know

Directions: Please answer the following questions by circling the number next to the response that best suits you.

22. Have you previously taken a death penalty course?

- (1) Yes
- (2) No

23. What is your class standing?

- (1) Freshman
- (2) Sophomore
- (3) Junior
- (4) Senior

24. What is your sex?

- (1) Male
- (2) Female

Directions: Please answer the following questions by writing the response that best fits you.

25. What is your major? _____

26. How old are you? _____

Thank you for completing this questionnaire.

APPENDIX B Vignettes

1. Wrongful Capital Convictions

On July 25, 1984 a nine-year-old girl was found dead in a wooded area in Baltimore County, Maryland. Kirk Smith was convicted of the sexual assault, rape, and first-degree murder of the girl and was sentenced to death. Smith's conviction was based solely on eyewitness testimony and circumstantial evidence. An anonymous caller, along with several other eyewitnesses, told police that they had seen Smith with the girl on the day that she was killed. Additionally, one witness identified Smith from a police sketch compiled by five witnesses. Reports that Smith had told an acquaintance that he had done something "terrible" that day, Smith's comment about a "bloody rock", and testimony that a shoe print found near the body matched Smith's size were the final pieces of evidence that sealed Smith's fate. In 1986 Smith's attorneys filed an appeal claiming that their client mentioned the bloody rock because it had been placed on the table next to him during his interrogation and, further, that the "terrible" thing that Smith had been talking about was failing to bring his wife dinner as he had promised. Smith's attorneys also contended that police had withheld information from defense attorneys pertaining to the possibility of another suspect. In 1993, with the use of sophisticated DNA testing, physical evidence found on the victim's clothing was examined by Forensic Science Associates (FSA) and the Federal Bureau of Investigation (FBI). Both tests conclusively showed that Smith's DNA did not match DNA gathered from the clothing of the victim. Smith was pardoned after spending two years on death row.

2. Racial Discrimination

Warren McCleskey, an African American man, was sentenced to death after being convicted of first degree murder during the robbery of a furniture store. McCleskey appealed this decision to the United States Supreme Court, claiming that his death sentence was a result of racial discrimination. McCleskey claimed that his death sentence was based on the fact that he was African American and his victim was white. Convincing evidence in support of his claim was presented at the hearing. Findings from a study were presented to show that the race of the victim, as well as the race of the murderer, affected charging and sentencing decisions in Georgia. Results of the study showed that African Americans convicted of murdering whites were sentenced to death in 22 percent of capital cases, while whites convicted of murdering African Americans were sentenced to death in only 3 percent of such cases. Additionally, the research showed that the odds of being sentenced to death were 4.3 times higher for those convicted of murdering whites than for those convicted of murdering African Americans. Citing these findings, McCleskey's attorneys claimed that McCleskey was sentenced to death due to the fact that he was African American and his victim was white.

3. Socioeconomic Discrimination

In 1995 O.J. Simpson went on trial for the brutal murder of his ex-wife, Nicole Brown Simpson, and her friend Ronald Goldman. Well-known by most, Simpson was a football player, actor, and multimillionaire. Although the murders in this case were particularly heinous, the Los Angeles District Attorney's Office decided not to seek the death penalty. At trial, eleven defense attorneys represented Simpson, with several more working on his behalf outside of the courtroom. Simpson's defense team included private investigators, jury-selection consultants, and several well-paid expert witnesses who challenged every claim made by the prosecution and presented alternative interpretations of the evidence. A great deal of time and money went into Simpson's trial, which lasted nearly nine months. Simpson's defense cost somewhere between 6 million and 8 million dollars. Simpson was found not guilty of the double murder. Just down the hall from Simpson's trial, Ernest Dwayne Jones was being tried for the rape and murder of his girlfriend's mother, Julia Miller. Jones had the assistance of one public defender, and there were no prominent defense experts to question the laboratory analysis. Likewise, Jones's public defender did not have special expertise in DNA evidence and was unable to question the prosecution expert. Jones's trial went on for twelve days, and Jones was found guilty and subsequently sentenced to death during the penalty phase of his trial.

4. Cost

Robert Smith, a New Jersey resident, was convicted of murdering his wife. Around the same time, Carl Jones was convicted of murdering his wife in Maryland. While the circumstances of these cases were similar, Smith was sentenced to a term of life imprisonment, while Jones was sentenced to death. The primary reason for the difference in sentencing in these two cases is that New Jersey does not have a death penalty statute, while Maryland does. While it appears logical that the conviction and life imprisonment of Smith would cost the state of New Jersey more than it would cost the state of Maryland to convict, sentence, and execute Jones, this is not the case. Research comparing the cost of the death penalty to the cost of life imprisonment has proven that the death penalty is much more costly than life imprisonment. New Jersey will likely spend between \$750,000 and \$1,100,000 to incarcerate Smith until he dies a natural death. However, the state of Maryland will incur a much higher cost by trying Jones in a capital trial and sentencing him to death. A recent study showed that a capital trial and execution in the state of Maryland costs approximately \$37,000,000. Other death penalty states are also paying very high amounts of money to maintain and impose the death penalty. For example, death penalty trials in California cost six times as much as non-death penalty murder trials, and it has been estimated that California taxpayers could save \$90,000,000 per year by abolishing the death penalty in the state. Similarly, the Department of Correctional Services in New York calculated that reinstatement of the death penalty would cost the state \$118,000,000 per year. Thus, Maryland taxpayers will pay a much higher price to execute Jones than New Jersey will to incarcerate Smith for life.

5. General Deterrence

With regards to the death penalty, general deterrence refers to the belief that the execution of convicted murderers will serve as an example and prevent other members of society from committing murder. Although this seems like a reasonable justification for the death penalty, there is not much evidence to support the idea that executions of convicted murderers prevent others from committing murder. For example, if the death penalty were a general deterrent, one would expect death penalty states to have a lower murder rate than non-death penalty states. However, much research has shown the opposite to be true. Even when taking into account a number of factors that may affect a state's homicide rates, non-death penalty states have lower homicide rates than death penalty states. Additionally, many researchers have examined media publicity for executions and subsequent homicide rates, arguing that, if the death penalty was a general deterrent, then highly publicized executions should result in lower homicide rates. Most scholars who have undertaken this form of research have found that, contrary to the deterrence hypothesis, the murder rate remained the same or, in many cases, increased following highly publicized executions.

6. All Information

The death penalty is a subject that sparks much debate among criminologists, criminal justice practitioners, and the general public. While some are staunch supporters of the punishment, those who oppose the death penalty cite a number of reasons that the punishment should be abolished. First, opponents contend that the death penalty is worthless as a general deterrent. (General deterrence refers to the belief that the execution of convicted murderers will serve as an example and prevent other members of society from committing murder.) Most research supports the notion that the death penalty has no general deterrent effect. A number of studies have even found that the death penalty may have a brutalization effect, which means that having the death penalty may actually cause *higher* homicide rates. Death penalty opponents also contest the punishment on the basis of cost. While most people think it is cheaper to execute a person than it is to incarcerate them for life, the exact opposite is true. Due to the length and complexity of death penalty trials, as well as the high cost of appeals, the death penalty process can cost tens of millions of dollars whereas life imprisonment typically costs between \$750,000 and \$1,100,000. In addition to issues of general deterrence and cost, death penalty opponents cite a number of other problems with this punishment. First there is the possibility of convicting and sentencing an innocent person to death. Since 1973, 139 people in 26 states have been released from death row because of evidence of their innocence. Death penalty opponents find this fact to be disturbing, and many feel that wrongful capital convictions are reason enough to abolish the punishment. Additionally, numerous scholarly studies have shown a great deal of discrimination in the imposition of the death penalty. For example, many studies have shown that those who murder whites are more likely than those who murder African Americans to receive the death penalty. This is especially true when an African American murders a white. Additionally, African

American defendants, in general, are more likely than white defendants to receive a sentence of death. Further, defendants who face a death sentence tend to come from the low end of the socioeconomic spectrum, and a lack of money often makes the difference between a life sentence and a death sentence. Most of these defendants are unable to afford a private attorney and must rely on representation by a public defender or court-appointed attorney, most of whom have few resources and little experience in handling death penalty cases. As such, they are unlikely to do an efficient job of representing their clients. As a result, defendants who must rely on the services of public defenders and court-appointed attorneys are much more likely to receive a sentence of death than are those who can afford private attorneys.

APPENDIX C
Experimental Post-test

Part A Directions: Please read the paragraph below carefully.

On July 25, 1984 a nine-year-old girl was found dead in a wooded area in Baltimore County, Maryland. Kirk Smith was convicted of the sexual assault, rape, and first-degree murder of the girl and was sentenced to death. Smith's conviction was based solely on eyewitness testimony and circumstantial evidence. An anonymous caller, along with several other eyewitnesses, told police that they had seen Smith with the girl on the day that she was killed. Additionally, one witness identified Smith from a police sketch compiled by five witnesses. Reports that Smith had told an acquaintance that he had done something "terrible" that day, Smith's comment about a "bloody rock", and testimony that a shoe print found near the body matched Smith's size were the final pieces of evidence that sealed Smith's fate. In 1986 Smith's attorneys filed an appeal claiming that their client mentioned the bloody rock because it had been placed on the table next to him during his interrogation and, further, that the "terrible" thing that Smith had been talking about was failing to bring his wife dinner as he had promised. Smith's attorneys also contended that police had withheld information from defense attorneys pertaining to the possibility of another suspect. In 1993, with the use of sophisticated DNA testing, physical evidence found on the victim's clothing was examined by Forensic Science Associates (FSA) and the Federal Bureau of Investigation (FBI). Both tests conclusively showed that Smith's DNA did not match DNA gathered from the clothing of the victim. Smith was pardoned after spending two years on death row.

Part B Directions: Below are a series of statements about your attitude toward the death penalty. Please indicate the degree to which you agree or disagree with each statement by circling the number next to the response that best fits you. Please answer as honestly as possible. Keep in mind that there are no right or wrong answers.

1. I favor the death penalty for a person convicted of first-degree murder.
 - (1) Strongly Disagree
 - (2) Disagree
 - (3) Neither Disagree nor Agree
 - (4) Agree
 - (5) Strongly Agree

2. I could personally convict a person who would be sentenced to death.
 - (1) Strongly Disagree
 - (2) Disagree
 - (3) Neither Disagree nor Agree
 - (4) Agree
 - (5) Strongly Agree

3. I support a life without parole sentence as an alternative to the death penalty for a person convicted of first-degree murder.

- (1) Strongly Disagree
- (2) Disagree
- (3) Neither Disagree nor Agree
- (4) Agree
- (5) Strongly Agree

4. I could personally witness an execution.

- (1) Strongly Disagree
- (2) Disagree
- (3) Neither Disagree nor Agree
- (4) Agree
- (5) Strongly Agree

Thank you for completing this questionnaire.

APPENDIX D
Control Post-test

Part A Directions: Please complete the addition and subtraction problems below.

1.
$$\begin{array}{r} 273 \\ + 125 \\ \hline \end{array}$$

2.
$$\begin{array}{r} 315 \\ + 96 \\ \hline \end{array}$$

3.
$$\begin{array}{r} 436 \\ + 138 \\ \hline \end{array}$$

4.
$$\begin{array}{r} 712 \\ + 396 \\ \hline \end{array}$$

5.
$$\begin{array}{r} 811 \\ + 235 \\ \hline \end{array}$$

6.
$$\begin{array}{r} 932 \\ - 210 \\ \hline \end{array}$$

7.
$$\begin{array}{r} 654 \\ - 361 \\ \hline \end{array}$$

8.
$$\begin{array}{r} 134 \\ - 47 \\ \hline \end{array}$$

9.
$$\begin{array}{r} 672 \\ - 329 \\ \hline \end{array}$$

10.
$$\begin{array}{r} 904 \\ - 521 \\ \hline \end{array}$$

Part B Directions: Below are a series of statements about your attitude toward the death penalty. Please indicate the degree to which you agree or disagree with each statement by circling the number next to the response that best fits you. Please answer as honestly as possible. Keep in mind that there are no right or wrong answers.

1. I favor the death penalty for a person convicted of first-degree murder.
 - (1) Strongly Disagree
 - (2) Disagree
 - (3) Neither Disagree nor Agree
 - (4) Agree
 - (5) Strongly Agree

2. I could personally convict a person who would be sentenced to death.
 - (1) Strongly Disagree
 - (2) Disagree
 - (3) Neither Disagree nor Agree
 - (4) Agree
 - (5) Strongly Agree

3. I support a life without parole sentence as an alternative to the death penalty for a person convicted of first-degree murder.
 - (1) Strongly Disagree
 - (2) Disagree
 - (3) Neither Disagree nor Agree
 - (4) Agree
 - (5) Strongly Agree

4. I could personally witness an execution.
 - (1) Strongly Disagree
 - (2) Disagree
 - (3) Neither Disagree nor Agree
 - (4) Agree
 - (5) Strongly Agree

Thank you for completing this questionnaire.

APPENDIX E
Access Letter to Professors

Dear Dr./Professor:

My name is Amanda Cox and I am a doctoral candidate in the department of criminology at Indiana University of Pennsylvania. I recently defended my dissertation proposal to research death penalty attitudes among college students. I am writing to seek your assistance in the data collection phase of my dissertation.

The purpose of my study is to examine the effects of information on student attitudes toward the death penalty. This project has been approved by the Institutional Review Board for the Protection of Human Subjects at IUP. All participants will be informed that participation in this study is voluntary and their anonymity will be protected.

A probability sampling method was employed (i.e., stratified cluster sampling) in this study. Your current class _____ has been randomly selected from a sampling frame of possible courses to be included in the study. I am seeking your permission to administer a questionnaire to the students enrolled in your course. Due to the random nature of course selection, I would greatly appreciate your assistance and help in this project by allowing me to administer my questionnaire to your class and students.

In an effort to improve upon previous studies of this nature, I am employing an experimental design. As such, I would need to gain access to your class on two separate occasions if you should agree to participate. The process of questionnaire distribution, informed consent, and survey completion for the pre-test is expected to take approximately 20 minutes. The post-test, which will be distributed approximately three weeks after the pre-test, is also expected to take approximately 20 minutes. I can administer the questionnaire at either the beginning or end of class time. As a Temporary Faculty member at IUP I can appreciate the value of class time and I thank you in advance for considering my request.

I would be happy to provide you with any additional information or answer any questions you may have. Please feel free to contact me or my dissertation chair, Dr. Jamie Martin. I look forward to speaking with you soon.

Respectfully,

Amanda K. Cox, M.A.
Doctoral Candidate
Department of Criminology
111 Wilson Hall
411 North Walk
Indiana, PA 15705
Phone: 724-357-7741

Jamie Martin, PhD
Associate Professor
Department of Criminology
G-18 Wilson Hall
411 North Walk
Indiana, PA 15705
Phone: 724-357-5975

Email: a.k.cox@iup.edu

Email: jmartin@iup.edu

APPENDIX F INFORMED CONSENT

My name is Amanda Cox, and I am asking for your participation to help me gather information to complete my dissertation. You are invited to participate in this research study. The following information is provided to help you make an informed decision about whether or not to participate. If you have any questions please do not hesitate to ask. You are eligible to participate because you are an undergraduate student at IUP and because your class was randomly chosen to participate in the study. Students under the age of 18, however, are not permitted by law to complete this survey. Although the opinions of those under the age of 18 are important it would be appreciated if those under 18 would write “withdraw” on their survey and submit it blank at the same time as the other students who choose to complete the survey.

The purpose of this study is to assess how performing different activities affects different parts of the brain. Participation in this study will require approximately twenty minutes of your time for the pre-test (today) and twenty minutes of your time for the post-test (a day later in the semester). There is no risk to you in this study. I am only interested in your attitudes.

Your participation in this study is completely voluntary. You are free to decide not to participate in this study or to withdraw at any time. If you choose not to participate, simply do not fill out the survey and turn it in blank when they are collected. If you start to participate but then decide to withdraw, you may do so at any time by writing “withdraw” on your survey. Upon your request to withdraw, all information you have submitted will be destroyed. If you choose to participate, your identity will remain anonymous. Please do not place your name or any other personally identifying information on the survey. In addition, your responses will be considered only in combination with those from other participants. Thus, the researcher will be unable to identify which response came from a particular student who completes the survey. The information obtained in the study may be published in scientific journals or presented at scientific meetings, but your identity will remain anonymous.

Again, your participation in this study is completely voluntary. Thank you in advance for your consideration and assistance with this project. If you have any questions or comments please feel free to contact me or my dissertation chair, Dr. Jamie Martin.

Amanda K. Cox, M.A.
Doctoral Candidate
Department of Criminology
111 Wilson Hall
411 North Walk
Indiana, PA 15705
Phone: 724-357-7741
Email: a.k.cox@iup.edu

Jamie Martin, PhD
Associate Professor
Department of Criminology
G-18 Wilson Hall
411 North Walk
Indiana, PA 15705
Phone: 724-357-5975
Email: jmartin@iup.edu

The Indiana University of Pennsylvania Institutional Review Board has approved this project for the Protection of Human Subjects (Phone: 724-357-7730).

I have read and understand the information on the form and I consent to volunteer to be a subject in this study. I understand that my responses are completely anonymous and that I have the right to withdraw at any time. Completing and returning this survey implies my consent to participate.