Retribution through Punitiveness: The Effects of Temporal Contiguity, Attributions of Vicarious Responsibility, Emotion, and Blame on Mock Parole Decisions and Public Perceptions

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by

Logan A. Yelderman, MA

Dr. Monica K. Miller/Dissertation Advisor

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We recommend that the dissertation prepared under our supervision by

LOGAN A. YELDERMAN, MA

Entitled

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be accepted in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

Monica Miller, Ph.D., Advisor

Tony Papa, Ph.D., Committee Member

Markus Kemmelmeier, Ph.D., Committee Member

Alicia Summers, Ph.D., Committee Member

Jennifer Lanterman, Ph.D., Graduate School Representative

David W. Zeh, Ph. D., Dean, Graduate School

May, 2016
Abstract

Parole boards make numerous release decisions with little time in between. Although these time constraints encourage efficiency and routinization, they also encourage the use of outside information, one potential source being emotion. When parolees commit violent crimes, coverage of these crimes might impact parole board members’ feelings of guilt, due to their feelings of responsibility for failing to prevent these crimes and protect the community. However, this might depend on the time between the parole board’s decision and the parolee’s crime (i.e., temporal contiguity), such that the more time between the decision and the crime, the less likely the crime will impact the parole board members’ feelings of guilt. Parole board members’ guilt might then influence self-blame, such that higher levels of guilt might lead to higher levels of self-blame. When parole board members experience high levels of guilt and self-blame, they might make more punitive subsequent parole release decisions for other, future inmates potentially because of higher anticipated negative emotion. However, this might depend on whether they process case related information emotionally or rationally when making parole release decisions. Previous theorists suggest that the attributions of responsibility are determined primarily by causality, knowledge, intentionality, coercion and moral wrongfulness; however, vicarious responsibility describes instances when responsibility is assigned to a third party, a non-causal party. Assigning responsibility to a third party might adhere to a different standard for judgment. The current study proposes a new model of vicarious responsibility predicted by knowledge, preventability, answerability, and accountability. One purpose of this research was to test a new model of vicarious responsibility. A second purpose was to use this new model of vicarious responsibility and related emotion to examine assignments of blame to parole board
members for the crimes of a parolee from both a public member’s perspective and mock parole board members’ perspective to see if these attributions differ between the two groups. A third purpose of this study was to see if attributions of blame and emotional experience predict bias and punitiveness in subsequent parole release decisions. Results suggest that in cases in which blame is assigned to a third non-causal party, models of vicarious responsibility best explained this process for both the public and parole board members, but traditional models of responsibility were insufficient in explaining blame. Temporal contiguity was not predictive of blame, and need for affect and counterfactual thinking did not significantly moderate these processes. Moreover, the proposed model including emotion (i.e., anger and guilt) sufficiently explained blame; however, a second model of vicarious blame (Shultz et al., 1987) also explained blame without emotion. The role of emotion, though potentially important, is unclear. The current research also tested models of vicarious responsibility and blame in parole board decision-making. Results suggest that in cases in which parolees commit crimes after being released on parole, parole board members’ self-attributions of responsibility were related to increased feelings of guilt which led to increased self-attributions of blame. This blame then led to increased anticipatory guilt and more punitive subsequent parole decisions. This process is potentially mediated (rather than moderated) by information processing state, however this relationship was sensitive to how information processing was measured. Also, other models of responsibility, emotion, and blame, were insufficient in explaining punitive decision-making. Implications are discussed.
This dissertation is dedicated to my wife, Rachel, and my son, Bryce, who was born during the process of writing it.
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Chapter 1: Introduction

Over 850,000 individuals are currently on parole, and nearly 500,000 individuals were released on parole in 2012 (Glaze & Bonczar, 2009; Maruschak & Bonczar, 2013). Parole boards carry the burden of deciding when parole-eligible inmates are ready to be released on parole (Senate Research Center, 1999), and parole boards make these decisions quickly and frequently.¹ For instance, Pennsylvania parole boards held 272 parole release hearings over the course of two months, averaging about seven parole hearings a day, and an Israeli parole panel held roughly 19 parole hearings a day (Carroll, 1978; Weinshall-Margel & Shapard, 2011). Moreover, Nevada parole boards averaged between 12 and 22 parole hearings a day (Nevada Board of Parole Commissioners Hearing Agenda, 2015). Parole decisions are made quickly, often with limited resources and with little deliberation time, yet these decisions have important and lasting impacts on inmates’ freedoms, community safety, and overcrowding of prisons (see King & Maur, 2002; Maruschak & Bonczar, 2013; Senate Research Center, 1999; Tonry, 1995). These decisions are often complicated processes involving several factors.

Synthesizing vast amounts of information into time constrained decisions might increase cognitive load and mental fatigue and encourage parole decision-makers to rely on selected case information or use outside information (i.e., information not directly related to the case (see Danzinger, Levav, & Avnaim-Pesso, 2011; Duffy & Smith, 2014; Hinson, Jameson, & Whitney, 2003; Macrae, Milne, & Bodenhausen, 1994; West-Smith, Pogrebin, & Poole, 2000). In particular, if and when parole board members experience emotions related to

¹ This is specific to discretionary parole decision-making under indeterminate sentencing policies.
release decisions, these emotions might influence the processing of case related information and guide their subsequent parole release decisions. One focus of this study is parole board members’ use of emotional responses to crimes committed by parolees during subsequent parole release decisions.

Through television and internet news coverage, along with feedback from administration and their supervisors, parole board members might be able to track the outcomes of their decisions. If a parolee commits a crime, depending on the severity of the crime, the outcomes of parole decisions might personally affect the board members, especially if parole board members ruminate about the negative aspects of their decision. For instance, if a parole board releases an inmate who commits murder a week after release, the parole board members might doubt their decision-making abilities and dwell on the decision and the fate of the victim. They might consider themselves accountable for the parolee, responsible for not preventing the crime and protecting the community, and blame themselves for the death of the victim. The awareness of these crimes, occurring shortly after their release decisions, might also evoke emotions, specifically guilt. Then, the parole board members might be required to make subsequent decisions while still feeling guilty for the previous decision that ended in murder. These feelings of guilt might elicit self-blame and the need to restore or repair the harm done as a result of the decision. Feelings of guilt might then bias parole board members’ next decision, potentially leading to a lower likelihood of granting parole in future decisions in order to avoid the same situation and “make it up” to the public. However, crimes committed by parolees long after release might have less of an emotional impact on parole board members.

Parole board members’ incorporation of emotion into decision-making would be
considered the use of extra-legal information to make release decisions, resulting in a biased decision-making framework for the next parole-eligible inmate. The emotional impact of crimes committed by inmates after release on parole might be contingent upon several factors including the time between an inmate’s release and the crime, self-attributions of responsibility and blame, parole board members’ emotional responses to the crime, and parole board members’ incorporation of emotion into decision-making. Crimes that occur shortly after release might increase perceptions of the parole board’s responsibility, thus, increase emotions and blame. Emotions and self-blame might then lead to biased or more punitive decisions toward inmates.

**Purpose**

The purpose of this research is three-fold; first, this research tests a new theoretical model of attributions of vicarious responsibility and blame. Vicarious responsibility is different from theoretical models of non-vicarious responsibility in that it refers to responsibility attributed to a third party rather than the causal party. In other words, vicarious responsibility describes situations in which a third party is somehow related to and responsible for an event that occurs between two other parties. Because parole boards are third parties to parolees’ crimes against victims, a model of vicarious responsibility is necessary; however, current theoretical models of vicarious responsibility are insufficient and provide little explanation of the phenomenon. The current proposed model will significantly add to the theoretical development of the concept of vicarious responsibility. Also, the proposed model of vicarious responsibility will be compared to previous models of vicarious responsibility (i.e., Shultz & Schleifer, 1983; Shultz, Jaggi, & Schleifer, 1987) and non-vicarious responsibility (i.e., Gailey & Falk, 2008; Shaver, 1985) to test differences across
models in their predictive ability regarding attributions of responsibility, blame, and decision-making. Although models of vicarious and non-vicarious responsibility share similarities on some dimensions, they differ on several others. Perceptions of these dimensions will be tested from the perspectives of members of the public and parole board.

The second purpose of this research is to incorporate the proposed model of vicarious responsibility into a larger proposed model of blame. Previous theories propose that blame occurs after responsibility has already been assigned (Gailey & Falk, 2008; Heider, 1958; Shaver, 1985; Weiner, 1985, 1995), but few include the influence of emotion (Alicke, 2000; Alicke, Buckingham, Zell, & Davis, 2008; Weiner, 1985; 1995), and none address vicarious responsibility specifically. Therefore, a new model of ‘vicarious’ blame will be proposed incorporating the new model of vicarious responsibility and emotion. This model of blame will be the first comprehensive model of blame to incorporate vicarious responsibility and emotion. The current proposed model predicts that parole board members who release inmates who commit murder days later will perceive themselves as more responsible than when the inmates commit murder years later. These increased perceptions of responsibility will lead to increased feelings of guilt and self-blame. The influence of perceptions of responsibility on emotion will likely be exacerbated by counterfactual thinking, generating alternative outcomes that might have led to a different or better outcome.

This model will also be tested from a public’s perspective, such that members of the public also blame parole board members for crimes committed by parolees after release through the same process except the public will experience anger toward the parole board instead of guilt. Both models of vicarious responsibility and blame will be tested against previously proposed models (Gailey & Falk, 2008; Shaver, 1985; Shultz & Schleifer, 1983;
Shultz et al., 1987) from both the public’s perspective and the parole board members’ perspective.

The third purpose of this study is to test whether attributions of blame predict decisional outcomes for parole board members and whether this relationship is dependent upon the way parole board members experience emotions in anticipation of decisional outcomes and the way they process information. Self-attributions of blame might lead to a higher likelihood of denying parole to inmates because parole board members might still feel guilty for releasing an inmate on parole who later committed a violent crime and anticipate feeling guilty if they release another inmate who could also potentially commit a crime. Parole board members might then make more punitive subsequent decisions in order to eliminate their guilt, restore their reputations, and repair their relationship with the community, ensuring the community that they will not release another dangerous inmate. However, the extent to which parole board members act punitively might depend on whether they process the case information for other inmates rationally or emotionally when making parole release decisions. Rational processing might be related to less punitiveness in subsequent decisions compared to emotional processing, and personality traits and targeted attitudes might also relate to these processes.

**Importance**

The current research is important and necessary for several reasons. First, the occurrence of parolees committing murder shortly after release is not as rare of an occurrence as suspected. In Colorado, over the course of 11 years, 33 parolees committed or were suspected of committing 38 murders (Brown, Osher, & Crummy, 2013). On average, these murders occurred within six months after the parolee was released, with the shortest time
between release and crime being two weeks. If this were to be extrapolated across the 50 states, nearly 172 murders would be committed yearly by parolees within six months of release. Thus, the way that decisions are being made warrants attention. This is particularly important because the extent that parolees commit crimes shortly after release is relatively frequent (occurring approximately every two days), and these occurrences could negatively impact inmates’ possibility of parole. If parole boards are more punitive after receiving news of a parolee’s violent crime shortly after release, inmates that face that parole board in subsequent decisions might also be held to tougher and more conservative standards in regards to earning release.

Second, discretionary parole release is increasing in America (King & Maur, 2002; Maruschak & Bonczar, 2013). With this increase, it is important to understand potential processes that could bias release decisions. Under mandatory sentencing, inmates are released as a result of serving the appropriate time specified under that specific mandatory sentencing framework. In this case, bias can only influence parole release when developing the mandatory sentencing frameworks. However, in discretionary parole decisions, bias can influence parole release in both sentencing frameworks and discretionary release decisions. As discretionary decisions increase, the opportunity for bias to influence decision-making strategies and processes might increases as well. If parole board members react emotionally to parolees’ crimes, and this emotion biases subsequent decisions, then an increase in discretionary parole decisions increases the chance for bias to impact inmates’ release.

Third, there is evidence that parole board members actually experience emotions related to releasing inmates who then commit crimes after released onto parole. In October of 2014, a Michigan man released on parole five months earlier crashed a car into and killed a
young woman while fleeing from the police. The family of the victim held the parole board responsible, stating, “[…] why was he let out? […] whoever let him out should be held responsible.” The Michigan Department of Corrections representative responded stating, “I know personally that these cases have a significant impact on the individual parole board members involved — they anguish deeply over these cases.” This suggests that parole board members do, indeed, experience emotions related to crimes committed by inmates whom they released on parole (Baldas, 2014). Therefore, studying parole board members’ emotional reactions to parolees’ crimes is both realistic and considerably important because parole boards admittedly claim it has an impact on them.

Fourth, this research is necessary to develop an adequate model of vicarious responsibility. Although vicarious responsibility has been used to describe parental liability in recent research (see Brank, Greene, & Hochevar, 2011), a complete model has not been proposed since the late 1980s (Shaver, 1985; Shultz et al., 1987; Shultz & Schleifer, 1983). This research develops and tests a new theoretical model of vicarious responsibility from two different perspectives (i.e., parole board members and the public). Findings from testing this new model will help fill in the gap in theories of attributions of responsibility related to third parties. More specifically, identifying a new theoretical model of vicarious responsibility will help explain self-attributional processes related to parole board members’ emotional responses to parolees’ crimes and their relationships with subsequent decision-making.

Conceptualizing third party responsibility will not only extend the current literature on attributions of responsibility, but it has substantial implications for the appraisal approach to emotions as well (see Roseman, 1991; Roseman, Spindel, & Jose, 1990; Tangney, Stuewig, & Mashek, 2007). Because appraisal processes of emotion incorporate attributions
of responsibility, a theoretical model of vicarious responsibility will provide an empirical understanding of how and why third parties might experience emotions related to others’ transgressions toward individuals. This might help establish a foundation for research regarding other vicarious attributions related to vicariously experienced emotions. Although Tangney et al. (2007) suggest individuals can experience vicarious guilt, the mechanism by which this experience occurs is not provided. The current model might provide evidence for one potential mechanism. This might then provide evidence that suggests ways in which attributions and emotions might relate to biased decision-making in predictable ways, potentially identifying points of intervention to reduce bias.

Lastly, this research is important because it will help identify whether emotions can influence parole decision-making. Although the current study focuses on reactive and anticipatory guilt and anger related to parolees’ crimes, future research might examine other emotions that might arise from other situations (job-related or unrelated events), yet still impact parole decision-making. Understanding these emotions and their impacts on parole decision-making is important, and the current research attempts to address this phenomenon.

Outline of Chapters

In chapter 1, the topic of the current research is introduced along with the relevant concepts. Also, the purpose of the current research and the importance are described in detail, and the relevance and need for this research is justified.

In chapter 2, parole board decision-making is outlined in detail regarding the history, purpose, current trends, and connections with social psychology. The purpose of this chapter is to educate and orient the reader on parole board structure, function, and decision-making processes so that understanding the social psychological processes related to parole boards,
in the following chapters, is easier to ascertain.

Chapters 3-7 introduce and describe the components of the proposed models of responsibility, blame, and decision-making in the current research. Each presents a specific theoretical approach, and these chapters are presented in the order they appear in the actual model (with the exception of chapter 7).

Chapter 8 outlines the study. It provides the reader with hypotheses and an understanding of the research design to help provide a foundation for interpreting the hypotheses.

Chapter 9 outlines the specific methods used in the study, including the materials, procedures, and measures (broken down by variable type). The procedure was outlined in detail and each measure was explained as to what is included, where it could be found in the appendices, how it was used, and where warranted, why it was used.

Chapter 10 outlines the results of the study. In this section, each analysis is described in details and related to each hypothesis listed in chapter 8.

Chapter 11 discusses the purposes of the study, the theoretical and practical implications of the study, how the results might be interpreted. This chapter also discusses the applications of this research, by extrapolating the results beyond the study, limitations, and future directions.

Chapter 12 concludes the research and provides a general summary of the study. The purpose of this chapter is to provide the reader with the final overview of the current research results and a brief synopsis of how it relates to the current state of the field.
Chapter 2: Parole Boards and Parole Decision-making

Parole boards are responsible for making numerous complex decisions related to inmates’ release into the community, and parole board members often feel substantial strain related to their duties (Kastenmeier & Eglit, 1975). It is possible that this strain might lead parole board members to use extra-legal information when making these decisions, potentially resulting in biased decisions. Previous literature describes parole boards’ history and structure, decision processes, and situations that might facilitate the use of extra-legal information.

History of Parole Boards

Parole boards and parole decision-making have evolved over the last two centuries. Parole originates from the French word “parol” meaning one’s commitment to his or her word, obligation of honor, or promise (Petersilia, 2000). It was first developed in Europe by both Alexander Maconochie of Norfolk Island and Sir Walter Crofton of Ireland (Cromwell & del Carmen, 1999). Both individuals began their work in the 19th century during the zeitgeist capturing the initial reformation attitudes toward punishment and confinement (Petersilia, 2000). Maconochie originally thought that prison sentences were being carried out definitively and proposed a more lenient system allowing early release as a result of good conduct; however, his ideas were viewed as too lenient and thus refuted (Clear & Cole, 1997). Sir Walter Crofton adopted Maconochie’s system in Irish prisons and created “tickets-of-leave” which were essentially early releases given to inmates who displayed major improvements. Crofton’s system was later adopted in America and incorporated into corrections by 1870 (Petersilia, 2000).

The first U.S parole process was New York’s 1876 two-prong approach created by
Zebulon Brockway. This system included discretionary sentencing and supervision, and it later adopted all components adding discretionary release and revocation criteria soon afterward (Senate Research Center, 1999). Discretionary parole and discretionary release refer to a parole system in which parole boards have discretion over decisions related to the inmate’s release back into the community, post-release supervision structure, and revocation criteria (Maruschak & Bonczar, 2013; Paparozzi & Guy, 2009; Senate Research Center, 1999). After New York implemented their parole system, discretionary parole increased in popularity, under indeterminate sentencing, and was adopted by all states by 1942 (Petersilia, 2000).

Discretionary parole was based on the theme of rehabilitation and the idea that inmates were able to be reformed (Mackenzie, 2001; Senate Research Center, 1999). For this reason, discretionary parole’s purpose was to individualize sentencing, release, and supervision for inmates, and it became the common practice up to and during the 1970s when over 70% of all releases were a result of discretionary parole (Senate Research Center, 1999; Tonry, 2005). This individualization approach allowed inmates who needed treatment and rehabilitation to receive it and then be released back into the community to become effective members of society (Mackenzie, 2001; Senate Research Center, 1999; Tonry, 2005); however, individualization led to problems in sentencing and release decisions.

**Shift from indeterminate to determinate sentencing.** Toward the end of the 1970’s and into the 1980s, the criminal justice system shifted away from discretionary sentencing and release and shifted toward determinate sentencing (i.e., diminished discretion and increased mandatory sentencing and parole policies; King & Maur, 2002; Mackenzie, 2001; Tonry, 2005). The previously popularized individualization approach led to significant
disparities in prison terms among offenders with similar offenses and criminal histories (Senate Research Center, 1999; Tonry, 2005). Legal professionals and the public began noticing this, and paired with Martinson’s 1974 “nothing works” essay suggesting that rehabilitation and prison reformation had no impact on inmates and outcomes, distrust in the State increased (Martinson, 1974; Mackenzie, 2001; Senate Research Center, 1999). Critics of the system began looking into these disproportionate sentencing outcomes, noticing that minority men and women were disproportionately serving longer sentences and denied parole more often compared to their counterparts (Tonry, 2005). As a reaction to this, support for discretionary parole declined (Senate Research Center, 1999; Tonry, 2005). Citizens began thinking that discretionary parole was too lenient, leading to support for “get tough on crime” policies and the beginning of the “just deserts” era, which captured the idea that offenders should receive punishment equal to their crimes (Abadinsky, 2012; Mackenzie, 2001; Tonry, 2005). States started discarding their discretionary parole boards or severely limiting their authority, and by 2000, discretionary release made up only 24% of all inmate releases, which was down from over 70% in the late 1970s (Hughes, Wilson, & Beck, 2002; Tonry, 2005).

**Determinate sentencing and mandatory processes.** Indeterminate sentencing allowed judges to set sentence minimums and maximums at wide ranges (Abadinsky, 2012). This might have resulted in an offender receiving a felony sentence with a minimum of 3 years and a maximum of 9 years. Once in prison, parole authorities would have then used discretion to release the inmate between that 3 and 9 years period (Abadinsky, 2012). This allowed parole boards to demonstrate leniency and punitiveness toward offenders at the parole board’s discretion (Abadinsky, 2012; Senate Research Center, 1999; Tonry, 2005).
When the criminal justice system shifted to determinate sentencing (pre-determined sentences for offenses typically established at conviction), states began eliminating or severely limiting parole boards’ authority. Under determinate sentencing, the implementation of mandatory release and mandatory sentencing policies increased.

Mandatory release policies include statutes requiring offenders to be released related to special circumstances or after a certain period of time had elapsed in their sentence (Hughes et al., 2002). Mandatory release occurs independent of the parole board’s discretion. Reasons for mandatory release include specific statutes requiring release after a certain portion of an inmate’s sentence was served (likely specifying that the rest of the sentence be served under supervision), a result of good time credits, and mental health issues (Abadinsky, 2012; National Parole Resource Center, 2012; Senate Research Center, 1999). Mandatory releases were the primary method of parole release in the late 1990s and early 2000s (Hughes et al., 2002).

Mandatory sentencing refers to policies that require an inmate to complete a sentence or portion of a sentence without the ability to be released. These policies were an attempt to bridle the discretion of parole boards, to a degree, and they include (but are not limited to) mandatory minimums, truth-in-sentencing, and three strikes policies (Abadinsky, 2012; Anderson & Slate, 2011; Mackenzie, 2001; Senate Research Center, 1999; Tonry, 2005). However, recently, support for these mandatory policies has begun decreasing.

The rise (again) of discretionary parole. Since “get tough” policies and the “just deserts” era (mid-1990’s to present), states have recently abolished or revised mandatory sentencing policies, implementing new policies allowing more parole discretion and authority, earlier release dates, and special provisions for early release of special populations
(e.g., mentally ill and elderly; Abadinsky, 2012; Hughes et al., 2002; King & Maur, 2002; Paparozzi & Guy, 2009; Tonry, 2005). This return to discretionary parole likely stems from renewed attention to rehabilitation, prison overcrowding, and increasing incarceration costs (Mackenzie, 2001; Paparozzi & Guy, 2009).

Regarding overcrowding, parole boards act as a pressure valve for prison populations; they regulate the population based on time served rather than rehabilitation, which can be problematic, because it discourages rehabilitative efforts as a motivation to earn parole release (Paparozzi & Guy, 2009). Also, as prison populations rise, prison costs rise; however, parole costs are cheaper than incarceration and discretionary release can help reduce state spending (Kuziemko, 2007; Mackenzie, 2001). Discretionary parole boards have been given more power over the past decades with these issues in mind (King & Maur, 2002; Mackenzie, 2001). As of 2012, discretionary release is the primary method of parole release in the U.S., a result of a steadily increasing trend (Maruschak & Bonczar, 2013). This trend in discretionary parole releases implies the importance of understanding discretionary parole board structure and processes.

**Parole Board Structure**

The parole release process has undergone several changes over the past few decades (Mackenzie, 2001). Parole decisions typically involve boards that convene and make release decisions based on case facts, criminal histories, and risk assessments (Senate Research Center, 1999). These boards are typically appointed by either the Governor, an executive council such as the state Senators, or both (National Parole Research Center, 2012), and they usually consist of anywhere from 5 to 19 individuals who serve terms that range from per diem to 6-8 years. Parole board members have backgrounds ranging from psychology to
criminal justice, marketing, real estate, politics, merchandise security, and professional sports, suggesting that they are not necessarily experts in criminal justice related fields but have diverse backgrounds (Abadinsky, 2012; Paparozzi & Guy, 2009; West-Smith et al., 2000).

When inmates are eligible for parole (served enough of the sentence to be considered for parole release), parole boards will review their case information and make a decision (Abadinsky, 2012; Newman, 1975). Some parole boards have a hearing process in which a subset of the parole board (usually two or three members) hear the inmate’s plea for release and then report their conclusions and make a release recommendation to the rest of the parole board and correctional authorities for the final decision (Abadinsky, 2012; National Advisory Commission on Criminal Justice Standards and Goals, 1975; Nevada Board of Parole Commissions, 2011). However, not all states hold in-person parole hearings. In fact, many parole decisions are made based on written reports only, and not all parole decisions require full board votes. Finally, once the voting is complete the inmate is either released on parole under a supervision plan or returned to prison (Abadinsky, 2012).

**Parole Decision Criteria**

When parole board members make decisions, they use information deemed relevant to the case, such as circumstances of the current offense, criminal histories, time spent in prison compared to recommended sentence length, inmate age, age at first offense, gang member status, prison custody level, alcohol and substance use/abuse, institutional record, severity of offense, psychiatric treatment, mental health, release plan, punishment related to past criminal record, anti-social personality factors, family support, education, employment history, leisure and recreational activities, disciplinary record, prior release hearings, and
victim input (Abadinsky, 2012; Caplan, 2007; Carroll, 1978; Matejkowski, 2011; Texas Board of Pardons and Paroles, 2013; West-Smith et al., 2000). Sometimes, extra-legal information, information other than case-related information, or objective future risk factors (e.g., religious conversion or subjective ascriptions of crime explanations), might be used during discretionary parole decision-making (Albonetti, 1991; Carroll, 1978; Carroll, Galegher, & Wiener, 1982; Lin, Grattet, & Petersilia, 2010; Matejkowski, Draine, Solomon, & Salzer, 2011; Miller, Lindsey, & Kaufman, 2014).

Although the use of this type of information might be allowed only in some jurisdictions, it suggests that information other than objective risk assessments and criminal histories is routinely used in determining parole decisions even where it is not allowed. If information unrelated to objective risk assessments and criminal histories is subjectively weighted differently among parole board members and applied differently to parole eligible inmates, this might result in disparate and biased decisions. Sometimes, biased decisions result from using information completely unrelated to risk assessments, release criteria, or case-relevant facts such as race and gender, suggesting that parole decision-makers are susceptible to making biased decisions based on unacceptable and irrelevant information (Albonetti, 1991; Erez, 1992; Huebner & Bynum, 2008; Tonry, 2005).

Parole boards’ use of extra-legal information might increase efficiency by allowing parole board members to use heuristic or automatic decision-making processes, minimizing time and cognitive effort (West-Smith et al., 2000). Although these processes might increase efficiency, they might also lead to biased decisions based on race or other inmate characteristics considered to have no legal bearing on whether they should be released or not (Huebner & Bynum, 2008). These processes likely do not conform to the requirements of
legislation, thus violating due process rights (Gobeil & Serin, 2009; Newman, 1975). Reducing the use of unacceptable or irrelevant information is critically important, but in order to do so, it is important to understand why and in what situations parole boards would be likely to use these types of information.

**Parole Board Decisions and Psychological Processes**

Parole board members make up to 22 decisions in a day and spend as little as fifteen minutes reviewing extensive case facts before making decisions (Nevada Board of Parole Commissions, 2011; West-Smith et al., 2000). For this reason, making consecutive parole decisions in a short amount of time can be taxing, decreasing cognitive resources available to parole board decision-makers at the time of the decision. Thus, parole decision-makers might be unable to strategically and logically incorporate all relevant information or make rational decisions (see O’Keefe, 2014; Petty & Cacioppo, 1996; Todorov, Chaiken, & Henderson, 2002). Depleted cognitive resources, instead, might increase reliance on arbitrary information and stereotypes, such as gender and race, or emotion (Duffy & Smith, 2014; Hinson et al., 2003; Macrae et al., 1994). Consistent with this idea, parole board members often develop “routinization,” which is the process of making decisions based on few case factors, almost automatically, due to the burden of numerous successive decisions (West-Smith et al., 2000).

Parole board members might also develop mental fatigue, which is the extent to which individuals become mentally tired as a result of intensive thought-related tasks, resulting in disproportionate and biased release decisions (Danzinger et al., 2011). Mental fatigue likely occurs in situations when parole boards make consecutive decisions with little time in between. For instance, parole boards would be allotted roughly thirteen minutes per decision when making 22 decisions in a nine hour day with a one hour lunch break (assuming
ten minutes of processing per case, which is conservative). In such instances, mental fatigue might reduce cognitive capacities, similar to cognitive load, thus resulting in parole board members’ use of heuristics, stereotypes, routinized decision processes, and potentially emotions.

Lastly, pre-trial publicity (PTP) refers to the exposure to media coverage of the legal decision at hand, and PTP might influence parole board decisions, similar to PTP’s influence on jury decision-making (see Hoiberg & Strykes, 1973). Jurors tended to vote more punitively and incorporate extra-legal information when exposed to pre-trial publicity (Ruva, McEvoy, & Bryant, 2007); this might occur as a result of emotional reactions to PTP (see Salerno & Bottoms, 2009). Parole decision-makers might experience similar circumstances related to media coverage of inmates who re-offend shortly after release on parole. Publicity of this type might influence parole board members in a similar way that pre-trial publicity influences jurors, suggesting that extra-legal information might be incorporated in parole release decisions. This influence of extra-legal information might be a result of parole board members’ emotional responses to the publicity, especially when the publicity is referring to a decision made by those specific parole board members. A better understanding of these processes and their effects on parole decision-making can help lead to suggestions of how to improve consistency and fairness across discretionary release decisions.

**Parole Boards and Public Perception**

One important question related to this research is “what drives parole boards to invest in their decisions?” Discretionary parole boards make important decisions with outcomes that have significant implications for the public, parole board administration, and State political authorities. Parole boards and other legal decision-makers have been symbolically
responsible for protecting the community and public safety (see Heider, 1944; Mackenzie, 2001). They have been tasked with the job of keeping dangerous inmates in prison while allowing low risk, reformed, and rehabilitated prisoners to be released. Therefore, it is a safe assumption that parole board members take ownership in their decisions because they are essentially vouching for each inmate who is released. However, failure to accurately identify and release inmates who are rehabilitated and ready for re-entry has led to scrutiny and criticism from parole administrators, Governors, the public, media, public officials, and prison administration (Abadinsky, 2012; National Parole Resource Center, 2012; Paparozzi & Guy, 2009). For example, when parole boards released inmates who then committed murder shortly after released, the parole boards were disciplined. In one state, the governor put a moratorium on the parole board. Other parole boards have had to re-train and re-evaluate their core competencies related to the decision practices (National Parole Resource Center, 2012). These disciplinary actions suggest that parole boards are held accountable for the outcomes of their decisions.

In *Martinez v. California* (1980) a parolee raped, tortured, and murdered a 15 year old girl only five months after his release. The girl’s family sued the parole board for depriving their daughter of her life (Abadinsky, 2012). Even though the judge ruled against the family, the family’s lawsuit against the parole board implies the family’s perceptions of the parole board’s responsibility for the death of their daughter.

When parole boards release inmates who then commit crimes, such as murder, shortly after release, it calls into question their decision-making processes and all aspects of the process that might influence their decisional outcomes. It is this reason that a better understanding of all potential influential factors related to the effects of parolees’ crimes on
parole decisions is the emphasis of this research. Of specific interest are attributions of parole board members’ responsibility for the outcomes of their decisions and the following effects of these attributions; this will be discussed in the following chapters.
Chapter 3: Attributions and Responsibility

The study of human behavior typically involves tests of various factors and how they influence behavior (Moskowitz, 2005). These factors often include personal, social, and environmental characteristics. This type of behavioral analysis involves attributions, specifically factors that are perceived to explain behavior and events. People are motivated to explain others’ behaviors and attribute it to some underlying causal mechanism or reason (Moskowitz, 2005). These attributions might then be used as information in developing attitudes or opinions toward others (Heider, 1944).

Generally, attribution theories of behavior have focused on the distinction between internal or external causes (Heider, 1958; Hewstone, 1989). Internal attributions are explanations central to the individual’s personality or internal characteristics, whereas external attributions refer to situational or circumstantial explanations of an individual’s behavior. Understanding the distinction between internal and external causal explanations of behavior and related mechanisms dominated attributional research (e.g., Ajzen & Holmes, 1976; Heider, 1944; Hewstone, 1989; Jones & Davis, 1965; Jones & Nisbett, 1972; Kelley, 1967; Kelley, 1972). For the most part, researchers have focused attributing behavior to specific causal factors. However, other researchers have extended this research developing models of responsibility and blame attributions as well (Gailey & Falk, 2008; Shaver, 1985; Shultz & Schleifer, 1983; Shultz et al., 1987; Weiner 1985, 1995).

Causal Attributions

Causal attribution refers to the explanation of two events, in which the first event elicited or helped elicit the second event (Kelley & Michela, 1980; Moskowitz, 2005). Several models of causal attributions have been used to explain internal and external
attributions of behavior. Heider (1944, 1958) proposed that causal explanations depended upon similarities, shared characteristics, and the unitary nature of two events (see also Heider & Simmel, 1944). Thus, as two events were more similar, shared many characteristics, and made sense as a unit, one could more easily infer that one event caused the other.

The uniqueness of the relationship between an event and outcome and the lack of non-common effects between them also increases perceptions of cause and effect (Ajzen & Holmes, 1976; Jones & Davis, 1965; Kelley & Michela, 1980; Moskowitz, 2005; Newtson, 1974). Similarly, the more two events occur together, without the influence of other events, the more likely one causes the other (Kelley, 1967; Kelley & Michela, 1980; Moskowitz, 2005).

Models of causality are important in understanding and explaining behavior, and causality is an important factor in explaining responsibility (e.g., Brank et al., 2011; Feinberg, 1968; Gailey & Falk, 2008; Fincham & Jaspars, 1980; Hart, 1968; Shaver, 1985; Weiner, 1985; 1995); however, vicarious responsibility, though closely linked with causality, suggests that a certain party has some sort of influence over a situation involving two other parties (one being the causal party). Vicarious responsibility does not necessitate causal influence, but because both causality and responsibility share many characteristics and evoke similar behaviors and attitudes, it is important to understand both concepts and how they differ.

Attribution theory has typically addressed the behavioral attributions of the causal party. For example, person A behaved in a specific way toward person B, evoking person B’s outcome. Of particular importance are the factors that were related to person A (or the situation) that caused person B’s outcome, specifically if, how, and why person A caused
person B’s outcome.

The current study examines a different attributional relationship, a relationship involving the role of a third party. Using the previous example involving two persons (person A and person B), the current study examines whether a third person, person C, influenced the interaction between persons A and B. In other words, person A behaved in a specific way toward person B, but person C did something to influence that behavior. Of interest are the factors related to person C (or person C’s situation) that influenced person A’s behavior toward person B.

In these relationships, the understanding of each person’s behavior is important when attributing responsibility. For example, if person A caused person B’s outcome, but person C had something to do with it, is person A or person C responsible for the outcome of person B or do they share responsibility? These are the types of questions that the current research attempts to address in the context of parole decision-making.

Models of causal attributions are not sufficient to explain third party responsibility because third parties lack causal explanations for the outcomes of another causal party’s behavior. Parole boards are third parties (person C) to parolees’ (person A) causal actions against a victim (person B), yet parole boards might still be held responsible for the outcomes of the victims. Therefore, in order to understand these processes, causal models must be abandoned and replaced by models of third party responsibility. An extensive review of attributions of responsibility and vicarious responsibility is essential.

Attributions of Responsibility

Attributions of responsibility describe the extent to which a person is perceived as responsible for the outcome of an event and is typically described as the moral accountability
of an action, behavior, decision, etc. (Shultz & Schleifer, 1983). Responsibility is commonly attributed to an individual agent acting in a purposeful manner in order to evoke a specific outcome (Eiser, 1978; Feinberg, 1968; Shultz & Schleifer, 1983). Although this is usually the case, instances in which individuals failed to act still can constitute responsibility through negligence, which is similarly considered a causal concept (Fincham & Jaspars, 1980). In such cases, responsibility lies in the omission rather than commission of a specific act. Responsibility from omission usually occurs when the expectations of certain actions are known, yet not fulfilled (Hart, 1968).

Responsibility is often related to perceptions of causality and intentionality, especially when involving negative outcomes (Feinberg, 1968; Gailey & Falk, 2008; Shaver, 1985; Weiner, 1995). For instance, if a perpetrator intended to hurt a victim and successfully caused harm, then the perpetrator is responsible for hurting the victim. However, responsibility does not necessitate these preconditions of causality and intentionality and can sometimes occur without them (Eiser, 1978; Heider, 1958; Shaver, 1985).

In instances in which both causality and intentionality occur, it is clear as to why an individual would then be held responsible. The individual not only caused the event, but purposefully brought about the outcome in a premeditated or planned manner. Instances in which causality occurs, yet intentionality is not established, an individual can still be attributed responsibility; however, the individual is not likely to be credited with purposefully evoking the outcome. Finding fault in automobile accidents resembles this process. Although one or both individuals caused the accident, neither intended to crash into the other. If these situations result in negative outcomes, sanctioning the causal party might be less likely to occur (e.g., negligent homicide has less severe consequences than first
degree murder because it occurs unintentionally).

Instances in which individuals are held responsible and intend an outcome but do not cause the outcome might still result in the individual being held responsible for the actions of the causal party or the outcome of an event. For example, in conspiracies to murder, a person encourages an associate to murder a target. The associate is the causal party (of the victim’s death), but the individual who encouraged the murder is still responsible for the victim’s death because he intended the offense. These actions constitute responsibility for the victim’s death despite no direct causality because of strong intentions related to the outcome.

Finally, in instances in which neither causality nor intentionality is established, responsibility describes the extent to which a third party is somehow associated with and accountable for the causal party’s actions and outcome. This model of responsibility provides the best explanation for responsibility attributed to parole decision-makers for parolees’ crimes. Inmates are released without the intention that they commit crimes, and when they do commit crimes, they are the obvious causal party. However, parole boards might still be viewed as responsible despite the absence of causality and intentionality because other mechanisms might be involved resulting in attributions of responsibility.

Responsibility in which causality and intentionality are not attributed to the responsible party (i.e., a third party) is called vicarious responsibility (Shaver, 1985; Shultz & Schleifer, 1983; Shultz et al., 1987). Although current models of responsibility suggest the potential to explain vicarious responsibility, only one formal model has been proposed. A model of responsibility and vicarious responsibility will be presented followed by the new proposed model of vicarious responsibility.
**Shaver’s (1985) theory of responsibility.** In Shaver’s (1985) attribution of responsibility theory, which is loosely based on Heider’s (1958) model of responsibility, he suggests that there are five dimensions of responsibility including causality, moral wrongfulness, knowledge, intentionality, and coercion. These dimensions together establish a person’s/party’s responsibility for an event (Shaver, 1985).²

*Causality* describes the extent to which an actor is a direct cause of an event (Gailey & Falk, 2008; Shaver, 1985). The more an actor is perceived as causing another event, the more likely the actor is perceived as responsible for the event. Regarding parole decision-making, the more the parole board members are perceived as causing the crime committed by the parolee, the more the parole board members are perceived as responsible for it. It is unlikely that parole boards will be perceived as the causal party, but because acts of omission are causal concepts, parole boards might be perceived as a causal party for the outcomes of parolees’ victims.

*Moral wrongfulness* of an action describes the extent to which an actor understands that an action is wrong. The more an actor understands that an action is morally wrong, the more responsible an actor is for the outcome (Shaver, 1985). Parole boards understand the potential impact of releasing a dangerous inmate, suggesting that they know the moral implications of their actions. This is also implied in parole boards’ moral obligation to protect the community and not release dangerous inmates into the community.

*Knowledge* describes the extent to which an actor was aware of the consequences of

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² A multidimensional analysis of responsibility suggested that responsibility has only four dimensions, excluding coercion (Gailey & Falk, 2008). Coercion was not perceived as relevant in the current research regarding parole board members and attributions of responsibility for post-release crimes committed by parolees, so Gailey and Falk’s (2008) model of responsibility will be used for the current research purposes.
an action and whether or not the actor was aware (or should have been aware) that an alternative action could have resulted in a different (potentially better) outcome (Gailey & Falk, 2008; Shaver, 1985). The more knowledge an actor has regarding the consequences of an event, the more responsible the actor is. Knowledge in parole decision-making refers to the extent to which parole board members are aware of the potential outcomes of their decisions and know the probability of these outcomes.

Parole board members must be assumed to have insight into the potential outcomes of their decisions because they make decisions based on future risk assessments, or assessments of what would likely happen if they were to release a prisoner. Because of this knowledge, parole boards are assumed to know the outcome of releasing an inmate. Therefore, parole board members are likely seen as knowledgeable, thus responsible for the outcomes of their decisions.

Intentionality describes the extent to which an actor voluntarily made choices that led to an event or outcome (Gailey & Falk, 2008; Shaver, 1985). Voluntariness is associated with the extent to which a behavior was purposeful and deliberate compared to accidental. The more intentional the actor’s actions, the more responsible the actor is for the outcome. Although parole boards are intentional in making their decisions, they do not necessarily intend for the inmate to commit a violent offense after release. Thus, it is unlikely that parole boards will be perceived as intending to release inmates who will knowingly commit crimes.

Lastly, coercion describes the extent to which an actor was under direct influence of the situation or another person (Gailey & Falk, 2008; Shaver, 1985). The more coercive the situation, the less responsible the actor is for the outcome. In parole decision-making, there is little to no coercion. However, coercion could describe the situational constraints of making
numerous decisions with little time for review, but this is not believed to be the case because the feasibility of other options (making a different decision) is not constrained nor limited in any way.

Shaver’s (1985) model provides a well-established framework for attributions of responsibility, but even Shaver doubts the strength of his model in explaining vicarious responsibility due to limited support for causality and intentionality. Fortunately, other researchers have tested and developed a model to better explain some aspects of vicarious responsibility (Shultz & Schleifer, 1983; Shultz et al., 1987). Shultz and Schleifer’s (1983) model of vicarious responsibility is discussed next, followed by a newly proposed theoretical model of vicarious responsibility.

**Shultz et al.’s (1987) model of vicarious responsibility.** According to Shultz and Schleifer (1983), vicarious responsibility is attributed to a third party based on three dimensions including the ability to compensate the victims, preventability, and severity of outcomes. The ability to compensate the victims suggests that a third party’s responsibility is based on whether they can financially (or otherwise) compensate the victim of the causal party (Shultz & Schleifer, 1983). This is typically exemplified in employers’ ability to compensate victims of their employees. This also might describe the extent to which parents can compensate individuals for their children’s misbehavior. For the purposes of this study, this describes the extent to which the state (i.e., the authority of the parole board) is able to compensate the victim or victim’s family for their loss or harm as a result of the parolee’s crime. For example, they might be able to compensate the victims if they are legally required to do so through a lawsuit.

The dimension of preventability describes the extent to which a third party is able to
prevent, or control, an outcome from happening (Shultz & Schleifer, 1983; Shultz et al., 1987). Using the parent-child example, parents are held responsible for their children’s behavior because the parents should be supervising their children preventing negative events. In this study, parole boards are perceived as able to prevent parolees’ crimes because they are the final decision-makers as to whether an inmate is released on parole or not. Thus, they have a degree of control over the outcomes because the point of prevention rests in the release decision. Shultz et al. (1987) found support for the preventability dimension of vicarious responsibility.

Lastly, the dimension of outcome severity suggests that third parties might be held more responsible when the outcome of another party’s actions are significantly severe or unjust (Shultz & Schleifer, 1983). In this case, parole boards might be held more responsible when parolees’ crimes are more violent or severe in their harm caused to the victims. This dimension has not been thoroughly tested in the context of vicarious responsibility.

While the Shultz and Schleifer’s (1983) original model had three dimensions, Shultz et al. (1987) proposed an expanded model and included a fourth dimension, superior status of the third party, which received support. Third parties of a higher status than the causal party were seen as more responsible than low status third parties. In the context of this research, parole boards have structurally higher statuses than inmates because of their position of authority and are likely to be held vicariously responsible because of it.

Although this model of vicarious responsibility provides several dimensions worth investigating, research has only shown support for status and preventability (Shultz et al.,
Because the status difference between parole boards and inmates is definite and not likely to change, the only supported dimension, which is also measurable in this context, is preventability. Although preventability is considerably important in assessing vicarious responsibility, it is not likely to be the only dimension relevant when measuring vicarious responsibility. Therefore, significant refinements and changes must be made in order to establish a better and more comprehensive model of vicarious responsibility.

**Proposed model of vicarious responsibility.** Due to the potentially inadequate fit of Shaver’s (1985) model of responsibility and the poor evidential support for Shultz et al.’s (1987) model of vicarious responsibility, a new model of vicarious responsibility is needed. The current research proposes to test a newly developed model of vicarious responsibility based on several dimensions related to third parties’ actions that make up the construct of vicarious responsibility.

The first dimension is *preventability*, which can be defined as the extent to which a third party was able to act or behave in a way as to prevent an outcome (Shultz & Schleifer, 1983; Shultz et al., 1987). This dimension comes from the idea that third parties are able to intervene, to some degree, in a way that would have prevented a specific outcome. Parents could have supervised their children more cautiously, managers could have sanctioned an employee, or parole board members could have denied parole. All presume that the third party is able to prevent an undesirable outcome. In a study of vicarious responsibility, Schultz et al. (1987) found that attributions of vicarious responsibility increased as preventability increased (they called this dimension “controllability”). Therefore, as

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3 Shultz et al.’s (1987) model is a refined version of the Shultz and Schleifer model and will be used in the final analyses.
perceptions of preventability increase, perceptions of responsibility should increase. Parole board members are able to prevent crimes committed by parolees by denying parole in the first place.

The second dimension is knowledge, and similar to Shaver’s (1985) knowledge dimension, it describes the extent to which a third party could have foreseen or predicted the actions of another party. An important distinction between the two dimensions is that the knowledge dimension in the vicarious responsibility model refers not only to the outcome, but also to the actions leading up to the outcome. As perceptions of knowledge increase, perceptions of responsibility should increase. Parole board members have knowledge of the inmates’ criminal histories, rehabilitative attempts, prison conduct, and progress toward release. Parole board members also have experiential knowledge about what outcomes might occur if the inmates are denied parole or released on parole. Therefore, parole board members’ knowledge of the outcomes and information related to the release satisfies the knowledge dimension.

The third dimension is answerability (Shaver, 1985), which refers to the extent to which a third party is able to answer for the actions of the causal party and receive restitution. For example, if children threw rocks at their neighbors’ windows, parents would be perceived as responsible for their children to the extent that the parents were able to answer for their children’s actions and provide restitution (Brank et al., 2011). However, if those same children did not have parents and were instead being raised by their 14 year old sibling, the sibling would likely not be held responsible despite being able to prevent and predict the event. This is because a 14 year old is not perceived as being able to answer for the children’s actions or provide restitution. While parents might be forced to pay for the
windows, the 14 year old would not. Perceptions of answerability might underlie the proposal that vicarious responsibility increases with the status and wealth of the third party (Shultz & Schleifer, 1983; Shultz et al., 1987). However, answerability also refers to the extent to which an individual should have to justify or provide a reasonable explanation for behavior (Shaver, 1985). In this case, parole boards are perceived as rational decision makers and might be required to provide a reason as to why they released an inmate who was obviously dangerous or who had a history of dangerousness. When individuals seek to hold a party responsible for an event, they likely seek parties that were involved in the event and should have to justify or explain their actions related to the event. As perceptions of answerability increase, perceptions of responsibility should increase. Parole board members are often expected to answer for the crimes of parolees because the parole board used their authority to state that the inmate was ready and fit for society, as in *Martinez v. California* (1980; see also Heider, 1944).

The fourth and final dimension of vicarious responsibility is *accountability*, which refers to the extent that a third party is obligated to assume responsibility for the causal party’s actions and behaviors (see Frink & Klimoski, 2004; Lerner & Tetlock, 1999; Tetlock, 1992). This dimension is closely related to Hart’s (1968) “role responsibility,” suggesting that parties are responsible for obligations, duties, and tasks related to their roles. Teachers are responsible for their students, parents for their kids, and parole boards for parolees. These all describe roles and accountability for others. Therefore, accountability might describe Hart’s construct of role responsibility or, at the very least, the same underlying construct. When parole boards release an inmate, they essentially vouch for the inmate’s readiness and are therefore accountable for the outcome of their decision. As perceptions of accountability
increase, perceptions of responsibility should also increase. Parole board members are held accountable for parolees’ actions because it is their role to make decisions that promote safety in the community, only releasing inmates who are ready for re-entry.

In sum, perceptions of vicarious responsibility increase to the extent that perceptions of preventability, knowledge, answerability, and accountability increase. As perceptions of vicarious responsibility increase, so does the likelihood of attributing vicarious responsibility to a third party. This model of vicarious responsibility applies to parole decision-making, such that parole board members are able to prevent parolees’ crimes by denying parole, have knowledge of and are able to foresee potential outcomes of releasing inmates into the community, are able to answer for parolees’ actions through justification, compensation, or other forms of restitution, and are held accountable for parolees’ actions because of their role and agency in release decisions. This model provides a sufficient explanation of vicarious responsibility as it relates to parole decision-making and can be adapted to address attributions from both a public member’s perspective and the perspective of a parole board member.

**Self-Attributions of Responsibility, Counterfactual Thinking, and Temporal Contiguity**

The current study examines responsibility attributed to parole board members by others and also parole board members’ self-attributions of responsibility. As such, understanding if and how self-attributions of responsibility differ from attributions of others’ responsibility is warranted because individuals might be more reluctant to hold themselves responsible compared to when holding others responsible. In this case, self-attributions pertain to attributing cause and responsibility to one’s own behaviors compared to attributing responsibility to others’ behaviors.
Differences might exist when attributing responsibility to others compared to one’s own actions. Specifically, individuals might attribute more responsibility to others but less responsibility to themselves when analyzing the same behavior in the same situation; this is similar to the actor/observer hypothesis (see Jones & Nisbett, 1972; Krueger, Ham & Linford, 1996). This might occur as a result of available information, such that individuals have far more situational information related to their own actions and can use it to explain their behavior, but they have far less situational information for others’ behavior and use information about the person to explain behavior instead (Hewstone, 1979; Jones & Nisbett, 1972; Nisbett & Ross, 1980; Ross, 1977). However, blaming situational factors for one’s own behavior might occur more in private settings, compared to public settings because in public settings, people might be held more accountable for their actions (Hewstone, 1989; Ross, Bierbrauer, & Polly, 1974). Although the actor/observer effect has been challenged, suggesting little support and questionable evidence (Malle, 2006; Malle, Knobe, & Nelson, 2007), it provides at least a potential basis for analyzing potential perspective differences in attributions of vicarious responsibility.

Another reason that attributions of one’s own behavior might differ from attributions of another person’s behavior might be because, in public settings, individuals might compare others’ explanations of their behavior against their own explanation. They might also incorporate others’ explanation into their own explanations (see Festinger, 1954; Hill, Weary, Hildebrand-Saints, & Elbin, 1985; Orvis, Kelley, & Butler, 1976; Rhodewalt & Comer, 1981). Individuals might then explain their own behavior in a way that differs from their initial explanations, and this new explanation of their behavior might resemble that of the public. Because parole decisions are of public interest and disclosed to the public, parole
board members might internalize these explanations of their decisions, resulting in increased emotional reactions if the decisions lead to harm of a community member.

Parole board members might also compare their decisions to other possible decisions that they could have made (see Shaver 1985) in a process called counterfactual thinking. Counterfactual thinking refers to an individual’s thoughts about alternative antecedents and outcomes to past events. Antecedents are considered to be characteristics of a situation or event that, if changed, might evoke a different outcome (Epstude & Roese, 2008; Roese, 1997). Counterfactual alternatives typically focus on antecedents determined to have caused or contributed to the outcome because they are easy to identify as being directly related to outcomes and can often be altered to evoke different outcomes. For these reasons, causal antecedents can often be the target for blame judgments (Kahneman & Varey, 1990; Roese, 1997). Similarly, antecedents perceived as responsible for the outcome would be targets of blame judgments. Focusing on specific antecedents of certain outcomes guides individuals’ future behaviors related to the alternatives identified in the counterfactual thought process (Epstude & Roese, 2008).

Counterfactual thinking is more likely to occur in the presence of negative outcomes (evoking upward counterfactuals), increased emotion (especially negative emotion), and temporal closeness of an outcome to one’s goal/desired outcome or the normality/typicality of the event (Epstude & Roese, 2008; Kahneman & Varey, 1990; Miller, Adya, Chamberlain, & Jehle, 2010; Roese, 1997). Temporal closeness describes the time between an event and an outcome, such that an event and outcome with little time in between them are considered to be temporally close and an event and outcome with significant time in between them are considered to be temporally distant or far. “Close misses” describe antecedents that occur
close in time (temporally close) to the outcome and are almost successful from keeping the negative outcome from occurring, if the outcome was negative. Close misses typically evoke more emotion, activate more counterfactual thinking, and require less change in order to evoke a different outcome when compared to far misses (Kahneman & Varey, 1990; Roese, 1997). Close misses might evoke these outcomes because of the strength of perceived associations between the antecedent and outcome. The effects of temporal closeness on perceived associations can be better understood in the context of temporal contiguity.

Temporal contiguity suggests that contiguity of two events is dependent upon the temporal precedence of the events and temporal distance between the events (Buehner & May, 2003; Kelley & Michela, 1980; Oakes & Kannass, 1999; Shanks, Pearson, & Dickinson, 1989). Temporal precedence refers to the temporal order in which two events occur, such that the first event is perceived as causing or being responsible for the second event (Kelley & Michela, 1980). Temporal distance refers to the time that elapses between the events, such that less time (compared to more time) between two events leads to increased perceptions of association and increased temporal contiguity (temporal distance is the same concept as temporal closeness; Buehner & May, 2003; Kelley & Michela, 1980; Oakes & Kannass, 1999; Shanks et al., 1989).  

The closer in time two events occur together, the stronger the association between the events (Buehner & May, 2003; Oakes & Kannass, 1999; Kassin & Baron, 1985; Kelley &

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4 For the purposes of this discussion, references to temporal contiguity will mean changes in temporal distance because temporal precedence is assumed to be established and non-changeable in the context of parole decision-making. Parolees are unable to recidivate without first being released on parole. Parolees cannot commit post-release crimes before being released on parole. A parole decision must be made before inmates can be released on parole, thus becoming a “parolee.”
Michela, 1980; Rydell & Jones, 2009; Shanks et al., 1989; Topolinski & Reber, 2010). The more time between two events, the more alternative explanations exist; thus, increased temporal distance between two events decreases the probability of the first event as responsible for the second event (Kelley, 1972; see also Pavlov, 1927; Piaget, 1930).

Temporal contiguity likely influences perceptions of vicarious responsibility through the knowledge and preventability dimensions of vicarious responsibility. The knowledge dimension describes the extent to which individuals have the knowledge to predict or foresee certain events given the present event. In this case, temporal contiguity might be related to knowledge in that it might be easier to claim that parole boards should know whether an inmate will commit a crime right after release compared to a year down the road.

Preventability describes the extent to which a third party could have made a decision that would have prevented or avoided an outcome. Temporal contiguity influences perceptions of preventability in that actions might be seen as more preventable when associated with an immediate outcome compared to a delayed outcome. By increasing perceptions of knowledge and preventability, the time between the release decision and the crime committed by the parolee might influence the parole board members’ overall perceptions of their own responsibility. Thus, when inmates commit crime right after release on parole, parole board members might have increased self-attributions of responsibility due to increased perceptions of knowledge (that they should have foreseen the inmate’s actions) and preventability (that they could have stopped this crime by making a different decision just a few days earlier).

These effects of temporal contiguity on perceptions and attributions of responsibility could then influence the counterfactual thought process. When temporal contiguity increases (i.e. temporal distance decreases), and attributions of responsibility increase, activation of
counterfactual thinking might increase. Therefore, as activation of counterfactual thinking increases, emotions, perceptions, and behavior related to counterfactual thinking might also increase. When parole board members release an inmate who commits a crime right after release (compared to long after release), they might perceive themselves as more responsible, engage in upward counterfactual thinking, experience more negative emotion, and commit more blame to their decision. Therefore, understanding the relationship between attributions of vicarious responsibility and emotions is important and necessary before relating these processes to attributions of blame.

In sum, current theories of responsibility that emphasize causality and intentionality are likely insufficient in explaining vicarious responsibility. Moreover, the only proposed theory of vicarious responsibility is poorly supported and lacks comprehension. Instead a new theoretical model of vicarious responsibility is proposed, incorporating similar features as other models but identifying key dimensions in need of inclusion. This proposed model also suggests a clear conceptual distinction between non-vicarious responsibility and vicarious responsibility.

Using this model to better understand attributions of blame and evaluations of behavior are important purposes in this research. Also, understanding the roles of temporal contiguity, counterfactual thinking, and emotion are equally important. The extent to which temporal contiguity influences attributions of responsibility and counterfactual thinking might provide a better explanation for blame and behavior; however, these processes might be dependent upon their relationship with various emotions.

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5 The functional theory of counterfactual thinking most directly applies to one’s own behavioral motivation and goal achievement (Epstude & Roese, 2008); therefore, counterfactual thinking is not predicted to have a significant impact on public members’ emotions as a result of their perceptions of responsibility.
Chapter 4: Emotion

Emotions are relevant in the criminal justice context as they relate to creating laws (e.g., hate crimes), shaping policy (e.g., inhumanity and suffering), and administering punishment (e.g., sentencing and shaming), along with other aspects (Bornstein & Weiner, 2010; Cassese & Weber, 2011; Karstedt, 2002). The current research uses the appraisal theory of emotions to explain emotion elicitation and the effects of those emotions on attitudes and behaviors. Appraisal theory is used because in the context of parole decision-making, emotions are predicted to be a direct result of cognitive evaluations of emotion-eliciting events. Also, the appraisal framework provides clear and direct predictions of attitudes and behaviors related to these emotions and emotion eliciting contexts, along with emotion consistent predictions in similar future contexts.

Appraisal Theory of Emotion

Individuals experience emotions based on their evaluative judgments of situations and relevant stimuli. According to the appraisal theory of emotions, an individual is exposed to situational characteristics that elicit specific emotions based on the individual’s cognitive evaluations or appraisals of those characteristics; these appraisals then lead to behaviors specific to the emotions and appraisals that elicited them (Ellsworth & Scherer, 2003; Haidt, 2001, 2007; Horberg, Oveis, & Keltner, 2011; Keltner, Horberg, & Oveis, 2007; Lazarus, 1991; Lerner & Keltner, 2000; Roseman, 1991; Rozin, Lowery, Imada, & Haidt, 1999; Shweder, Much, Mahapatra, & Park, 1997; Silvia, 2008; Smith & Ellsworth, 1985).

Also, according to the appraisal theory, emotions are a process that can change over time, such that appraisals can elicit emotions that lead to behavioral responses, which can then change the situation, which then leads to re-appraisals and the experience of new
emotions or a different experience of the same emotion (Ellsworth & Scherer, 2003).

Emotions can also influence subsequent behaviors and emotion-related appraisals (Lerner, Hans, & Keltner, 2007). For example, fear in “Situation A” might influence behavior and fear appraisals in “Situation B.” Lastly, appraisals of stimuli are thought to sometimes occur automatically and unconsciously, potentially influencing attitudes and behaviors unknowingly (Ellsworth & Scherer, 2003). Based on these appraisals and emotional responses, individuals behave in ways consistent with their emotions, appraisals, and situations (Ellsworth & Scherer, 2003; Lazarus, 1991).

Some emotion-related behavioral responses occur with great predictability given certain appraisals (see Roseman, 1991; Roseman et al., 1990). For instance, anger might result from an offense against one’s self or against close others (e.g., friends, family, or community members; Lazarus, 1991; Roseman, 1991). Appraisals of guilt might result from one’s own moral offense against others resulting in some sort of harm (Baumeister, Stillwell, & Heatherton, 1994; Roseman et al., 1990).

These appraisals often involve perceptions of agency, which include attributions of causality or responsibility, related to events and individuals’ behaviors. Appraisals involving attributions of vicarious responsibility might elicit strong emotional reactions, depending on the perspective of the individual (see Smith & Ellsworth, 1985; Tangney et al., 2007). Members of the public might become angry when parole boards release inmates who commit murder shortly after release, and parole board members might feel guilt after releasing that same inmate.
Anger

Anger is elicited by appraisals of others’ responsibility for transgressions against one’s self or close others, and these actions lead to judgments of unfairness, injustice, and the desire for punishment (Horberg et al., 2011; Keltner & Lerner, 2010; Keltner et al., 2007; Lazarus, 1991; Lerner, Goldberg, & Tetlock, 1998; Lerner & Keltner, 2000; Rozin et al., 1999; Seip, Van Dijk, & Rotteveel, 2014; Small, Lerner, & Fischoff, 2006; Smith & Ellsworth, 1985; Weiner, Graham & Reyna, 1997). Feelings of anger can also lead to blame and are often confirmed by the expectation that others should feel guilty for their behavior (Quigley & Tedeschi, 1996; Small et al., 2006; Weiner, 1995). Because anger is related to attributions of responsibility, injustice, rights, and thoughts of freedom, it leads to behaviors that relate specifically to these appraisals (Keltner et al., 2007). For instance, anger predicted punishment (even when costly to one’s self), retaliation, and less support for the party responsible for the injustice or unfairness (Seip et al., 2014; Small & Lerner, 2008; Weiner et al., 1997). Thus, anger was related to appraisal-specific behavior, supporting the appraisal theory.

The public might perceive parole boards as responsible for endangering the community by releasing inmates who commit crimes shortly after release. Thus, the public might appraise these events as threats against themselves or close others (e.g., community members, members of the public, or Americans), eliciting anger. These feelings of anger might then be related to the desire for members of the public to punish parole boards by blaming them for the victim’s harm (see e.g., Alicke, 2008; Lerner & Keltner, 2010). Blaming the parole board might represent the public’s disapproval of parole boards, challenge of parole boards’ decisions, and communicate the message that parole boards
should feel guilty for their decisions to release dangerous inmates (see e.g., Weiner, 1995). As a result, these actions might actually impact the parole board members, eliciting emotions and influencing their subsequent release decisions.

**Guilt**

Guilt arises from appraisals of one’s own responsibility for a negative outcome or transgressions toward others, undesirable outcomes, and concern for others’ well-being (Baumeister et al., 1994; Horberg et al., 2011; Roseman et al., 1990; Smits & De Boeck, 2003). Guilt is also conceptualized as anger turned inward, or sharing appraisals with self-directed anger (Ellsworth & Tong, 2006; Hansen & Sassenberg, 2011; Weiner, 1995). Guilt evokes agency and behaviors related to these appraisals such as the need to restore the perceptions of morality after an apparently immoral action or the need to remove the feeling of guilt (Keltner et al., 2007; Lazarus, 1991; Rozin et al., 1999; Smits & De Boeck, 2010). For instance, guilt was related to restorative and reparative behaviors related to the situations and relationships involving transgressions, increased helping behaviors and compliance, and increased harmony (Ahn, Kim, & Aggarwal, 2014; Baumeister et al., 1994; de Hooge, Nelissen, Breugelmans, & Zeelenberg, 2011; Tangney et al., 2007).

Vicarious guilt describes the extent to which guilt is felt for another person’s harmful actions and is related to behaviors related to guilt appraisals (Tangney et al., 2007). Vicarious guilt increases with emphasis on the victim and interpersonal dependence with the offender (Tangney et al., 2007). Thus, vicarious responsibility likely leads to vicarious guilt, whereas non-vicarious responsibility likely leads to guilt.⁶

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⁶ For the most part, I simply refer to vicarious guilt as guilt in the context of self-attributions of vicarious responsibility.
The current study proposes that guilt is largely a private emotion, associated with negative self-perceptions, and is a result of appraisals of responsibility. Therefore, mock parole board members who consider themselves responsible for parolees’ crimes will experience (vicarious) guilt. Because feelings of guilt lead to a need for restitution, parole board members will likely blame themselves for the parolees’ crimes and behave more punitively when making subsequent parole decisions to satisfy this need for restitution. Therefore, not only might increased feelings of guilt lead to a higher likelihood of self-blame, it might also lead to a higher likelihood of denying parole to inmates in subsequent parole release decisions.

**Regret**

Regret is defined as the experience of realizing that a choice which an individual could have made is better or more satisfying than the choice which the individual actually did make (Loomes & Sugden, 1982). It is possible that parole board members might experience regret after making the decision to release an inmate on parole who then commits murder shortly after release. This experience of regret might then motivate parole board members to make different decisions in the future (e.g., deny an inmate in the future) that minimize anticipated regret (see Gelberg, 2002; Guthrie, 1999; Loomes & Sugden, 1982; Roseman, 1991; Roseman et al., 1990).

While regret tends to be decision focused and unrelated to harm toward others, guilt tends to be focused on involvement in the outcome and harm toward others. For instance, individuals might experience regret when choosing the wrong door in a gameshow, but they will probably not feel guilty. However, individuals might feel guilty if choosing the wrong door in a game show also results in another contestant losing money. Because the outcome
related to this research is murder, a situation involving harm, it is hypothesized that guilt will
be more predictive of blame and subsequent behaviors compared to regret. However, both
guilt and regret will be tested as factors related to blame and decision-making.

In sum, appraisal theory of emotion and models of guilt and anger provide ways in
which emotional reactions are related to attributions of vicarious responsibility of parole
board members for releasing inmates who later commit murder. These emotional reactions to
attributions of vicarious responsibility might then lead to attributions of blame in the form of
retribution (anger) or restitution (guilt) and appraisal related behaviors. Previous theories
suggest that blame attributions are primarily a result of attributions of causality and
responsibility; however, the current model proposes that emotions play a significant role in
predicting blame. Further understanding attribution models of blame and blame literature,
discussed in the next chapter, will help highlight the importance of emotions related to blame
attributions.
Chapter 5: Blame

Attributions of blame differ from attributions of responsibility in that blame is more of a social process, incorporating interactional aspects interpreted through individuals’ perceptions (Shaver, 1985). In contrast, responsibility is determined by causal and associative inferences and explanations of the relationship between a person and an event. Also, while responsibility is neutrally valenced, blame is predominantly a negative judgment (Weiner, 1995).

One important component of blame attributions is an individual’s motivation to seek a person’s culpability or liability for censure or punishment for an event (Shaver, 1985). Blame is based on judgments of responsibility (Shaver, 1985; Weiner, 1985, 1995).

According to Shaver (1985), attributions of blame are based on the volition and knowledge of the blameworthy party and the absence of a legitimate justification or excuse. Although Shaver’s (1985) model of blame addresses important dimensions such as justifications and excuses related to actions and attributions of responsibility, it is insufficient in explaining attributions of blame resulting from attributions of vicarious responsibility for two main reasons.

First, in Shaver’s (1985) model of blame, causality and intentionality play a critical role. Because evidence for causality and intentionality is weak in attributions of vicarious responsibility, this aspect of his model is insufficient in predicting attributions of blame.

Secondly, Shaver’s (1985) model of blame, is solely cognitive. However, there is evidence that emotion, whether anger or guilt, elicits emotion specific behaviors including blame (Ahn et al., 2014; Alicke, 2000; Baumeister et al., 1994; de Hooge et al., 2011; Horberg et al., 2011; Keltner & Lerner, 2010; Keltner et al., 2007; Lerner et al., 1998; Lerner
& Keltner, 2000; Rozin et al., 1999; Seip et al., 2014; Small et al., 2006; Smith & Ellsworth, 1985; Tangney et al., 2007). Due to the agentic nature of guilt and anger, blaming third parties might rely much less on determining whether the responsible party has a reason that absolves them from fault and more on the need for punishing and socially sanctioning those held responsible for some negative outcome (Alicke, 2000; Alicke et al., 2008; Alicke, & Rose, 2012). This is evidenced by the idea that emotion biases information, specifically information related to attributions of blame (Alicke, 2000; Alicke et al., 2008; Alicke, & Rose, 2012 Clore, 1992; Epstein, 1990; Gawronski & Creighton, 2013; Levenson, 1999; Loewenstein, Weber, Hsee, & Welch, 2001; Schwarz, 1990; Slovic & Peters, 2006). High emotional intensity might increase the desire to seek a blameworthy party, exacerbating biased information seeking (Shultz & Schleifer, 1983).

However, not all models of blame include emotion. In Malle, Guglielmo, and Monroe’s (2014) path model of blame, emotion is treated as separate from the process by which an individual arrives at a judgment of blame. In this model, blame is considered a social cognitive process that follows a simple stepwise analysis with several steps.

In the first step, an event evokes a causal judgment of a related individual (typically a person whom is considered potentially blameworthy). If the individual under assessment is determined as not causing the event outcome, blame is not assigned. If the individual is considered as causing the event outcome, then intention is assessed, which is the second step.

In this second step, if the individual intended the event outcome, then the individual’s reasons for this intention are assessed. This intention assessment provides the opportunity for a perceiver to accept (or not) excuses or justifications as an explanation for the intention. This process resembles that of Shaver’s (1985) justification component. Based on perceived
justification and reasoning, varying degrees of blame are assigned. If intentionality is not established, then the extent to which an individual should have prevented the event is assessed, which is the third step.

In the third step, if the individual should not have prevented the outcome, blame is likely not assigned. If the individual should have prevented the outcome, then foreseeability is assessed because the ability to prevent an outcome is dependent on the ability to foresee the need to prevent an outcome. Thus, the fourth step is the assessment of foreseeability.

In the fourth step, if the individual could not have foreseen the outcome, the blame is likely not assigned. However, if the individual should have prevented the outcome and could have foreseen it, then the individual is likely assigned blame (Malle et al., 2014). In this model, systematic perceptions of moral and social behavior predict assignments of blame, if warranted. Emotion does not play a role in blame assignments but instead is conceptualized as a phenomena that often accompanies assignments of blame. This model proposes a new approach to blame while excluding explicit attributions of responsibility.

In sum, attributions of blame result as a function of emotional responses to attributions of responsibility or simply judgments of social and moral behavior. In this study specifically, members of the public who hold parole boards responsible for parolees’ crimes might experience anger toward the parole board for failing to protect the community, and this anger might then lead to blaming the parole board in order to socially sanction them and restore a sense of justice. Similarly, parole board members might experience guilt for failing to protect the community and blame themselves as a form of social punishment and personal restitution. It is also possible that judgments of causality and preventability might predict blame despite emotional responses to the outcomes of these parole decisions.
Parole board members might also seek restitution through punitiveness in subsequent parole release decisions. If parole board members seek to correct a wrong they feel that they have committed, blaming themselves for the outcome, then they might be more likely to deny parole to inmates in anticipation that the inmates will commit a violent offense. They might also interpret information that supports parole denial as more substantial than information that supports parole release. The extent to which emotional states and blame influence subsequent release decisions might depend upon the way in which parole board members process information when experiencing anticipatory emotion; this is the topic of Chapter 6.
Chapter 6: Information Processing

In parole decision-making, there might be instances when parole board members do not experience emotions intense enough to bias their decisions. There might also be instances in which parole board members think critically and deliberately try to make logical decisions. On the other hand, there might be instances in which parole board members make emotionally driven decisions or decisions based on gut feelings. In these two routes of decision-making, it is evident that the way in which parole board members evaluate information might differ based on their emotional state and how they assess information. Information processing theories propose that information might be evaluated and processed by separate systems depending on the individual and situation (Gawronski & Creighton, 2013). One system is characterized by heuristic and experiential processing, using cues that allow for relatively quick and easy decisions, and the other system is characterized by analytical, rational, and logical processing, using more deliberative and analytical thought (Epstein, 1990; O’Keefe, 2014; Slovic & Peters, 2006; Todorov et al., 2002). A more thorough explanation of these processes is important in understanding how and why emotion might influence parole board members’ decision-making.  

Two Processing Systems

There is evidence that individuals are able to process information using two separate systems. First individuals are able to process information rationally and systematically, using analytical thinking, logic, and reason (Gawronski & Creighton, 2013; O'Keefe, 2014; Todorov et al., 2002). Individuals’ use of rational processing depends on the available

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7 This entire section specifically addresses decisions made by parole board members from parole board members’ perspectives.
cognitive resources and motivation to process rationally (O’Keefe, 2014; Todorov et al., 2002). When cognitive resources are fully available and motivation is high, rational processing likely occurs, directing focus to important and relevant information. However, when cognitive resources or motivation is reduced, individuals tend to process heuristically, focusing more on peripheral characteristics like situation cues or speaker characteristics (O’Keefe, 2014; Todorov et al., 2002).

Also, individuals often reflect on how they feel, or anticipate feeling, when making judgments and decisions. In this regard, emotional experience, conceptualized by mood, might influence judgments and decisions in emotion-consistent ways, called the affect-as-information hypothesis (Clore, 1992; Forgas, 1994, 1995; Schwarz, 1990). However, the influence of emotion on judgments and decisions might depend upon the type of decision and related contextual information (Forgas, 1994; 1995).

Different emotions might lead to different types of information processing (see Gray, 2004). Individuals in positive mood states (happiness) likely process information more heuristically, using cognitive shortcuts, stereotypes, and peripheral cues, because happy individuals have no motivation to critically analyze situational and personal information (Bodenhausen, Kramer, & Süsser, 1994; Clore, 1992; Forgas, 1994, 1995; Schwarz & Clore, 2003). On the other hand, negative mood states (sadness) might increase analytical and strategic processing because negative moods indicate problems or danger in the environment, motivating individuals to figure out the source and mobilize resources to confront it (Clore,

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8 Other literature runs counter to these predictions and suggests that positive affect might lead to more careful thinking and flexible information processing approaches (see Isen, 2008 for discussion). Because the current research does not include positive emotional states in the design, further discussion of the effect of positive emotion on decision-making is outside the scope of this research.
According to these perspectives, it is apparent that two processing systems exist, one rational and systematic and the other heuristic. Although prior theories differentiate between several mechanisms driving these processing systems, one dual-process theory (Cognitive-Experiential Self Theory) suggests that these systems, though separate, are used simultaneously but distinguishable based on the influence of emotion. This is different from prior theories suggesting that emotion drives which processing system is used (Bodenhausen et al., 1994; Clore, 1992; Forgas, 1994, 1995; Isen, 2008; Schwarz & Clore, 2003).

**Cognitive-Experiential Self Theory (CEST)**

Cognitive Experiential Self Theory suggests that information processing consists of two systems, a systematic, analytical, and rational system along with an experiential system that is intimately linked with emotion and intuition (Epstein, 1990; 2008; Epstein, Pacini, Denes-Raj, & Heier, 1996; see also Greene & Haidt, 2002; Haidt, 2007; Keltner & Lerner, 2010). The rational processing system is slower, occurs consciously, is more stable over time, and emphasizes the *process* of thinking and comprehending information (Epstein, 2008). The experiential processing system occurs much faster, happens automatically, relies on heuristics, and emphasizes the *outcome* of thinking and comprehending (Epstein, 2008). Individuals often use one system more than the other when making decisions, and although they can work simultaneously to an extent, usually one processing system is responsible for an outcome and overrides the other depending on the information available, situational pressures, and individual processing system (Epstein et al., 1996; Epstein, 2008).

All decisions likely include the use of both information processing systems, and the experiential system typically acts first or as a primary system as it is automatic and
unconscious (Epstein, 2008). Although the experiential system can influence the rational system, the rational system cannot necessarily limit or control the experiential system (Epstein & Pacini, 1999). In other words, the experiential system acts as the default system, suggesting that the influence of the rational system is completely moderated by the experiential system (Epstein, 1990; 2008; Epstein & Pacini, 1999; Epstein, Lipson, Holstein, & Huh, 1992).

Research involving emotion and risk analysis and Epstein’s (1990, 2008) CEST model tend to converge on explanations about emotion acting as a heuristic. In emotion and risk research, individuals use a cognitive shortcut that is based on their use of momentary affect as a basis for decision-making, called the affect heuristic (Denes-Raj & Epstein, 1994; Peters & Slovic, 2000; Slovic & Peters, 2006; Slovic, Finucane, Peters, & MacGregor, 2004). According to the affect heuristic, individuals react emotionally when faced with decisions, and these emotions are the result of anticipated outcomes, imagery of potential outcomes, personal experience related to the stimuli, and conditioning history with the stimuli (Loewenstein et al., 2001; Slovic & Peters, 2006). These emotions, experienced at the time of decision-making, bias information processing, such that positive emotions increase perceptions of reward and decrease perceptions of risk, while negative emotions influence reward and risk in the opposite directions (Slovic & Peters, 2006; Slovic et al., 2004).

This is also supported in the CEST model, which suggests that emotional influence on decisions is related to imagery and prior experience with stimuli, and these emotions can bias
rational processing (Denes-Raj & Epstein, 1994; Epstein 1990; 2008; Epstein et al., 1992). One study cited by both CEST researchers (Epstein & Pacini, 1999) and emotion and risk researchers (Slovic et al., 2004) is a study in which individuals were asked to choose whether they wanted to blindly choose from one of two different bowls filled with different colored beans. In one bowl, the odds of choosing a winning bean being were 1 out of 10, and in the other bowl, the odds of choosing a winning bean were 9 out of 100 (Denes-Raj & Epstein, 1994). The participants tended to choose the bowl with 9 out of 100 odds more often, due to the feeling that they would be more successful since there were more winning beans total in the bowl. This even occurred despite the fact that the individuals stated that they knew the bowl with 1 winning bean had a better winning probability. These findings suggest that feelings (emotions) related to the experiential system can and often do bias the use of the rational system in judgments and decisions (Denes-Raj & Epstein, 1994).

One key aspect of the affect heuristic suggests that emotions related to decisional outcomes influence other related decisions with similar potential outcomes. For example, if extreme happiness results from winning a gamble at the blackjack table, this might increase a person’s likelihood of playing blackjack again (thinking that the odds are in favor of another win) or gambling at the roulette table. Another example might be how an individual’s negative emotions resulting from choosing an unsatisfactory undergraduate institution affect the decision-making process when choosing a graduate institution. This is especially true if intense emotional experiences occurred as a result of previous decisional outcomes relevant to the current decision (Loewenstein et al., 2001; Slovic & Peters, 2006; Slovic et al., 2004). These subsequent effects typically occur in a consistent manner with the initial decisions, such that positive emotions related to initial decision outcomes produce positive emotions...
related to subsequent similar decisions. The same is true for negative emotions related to initial decision outcomes. The emotions experienced at the time of a decision related to outcomes of prior decisions are called anticipatory emotions (Loewenstein et al., 2001; Slovic & Peters, 2006).

Anticipatory emotions related to prior decision outcomes are activated when the person is faced with a decision in which the outcomes are similar to prior decisions. The emotions associated with prior outcomes then alter the interpretation of information related to the current decision (Loewenstein et al., 2001; Slovic & Peters, 2006; Slovic et al., 2004). For instance, if an individual plays the lottery and wins one million dollars, the emotions from that event will likely impact his decision to play the lottery in the future and potentially how he will play (e.g., scratching the tickets a certain way, choosing certain numbers).

Similarly, parole decision-makers who experience emotion from previous release decisions will likely experience similar emotions or at least incorporate prior experiences when faced with subsequent release decisions similar to those prior decisions. These emotional experiences then bias the information processed during subsequent release decisions in a manner consistent with emotions experienced in the initial release decision.

Due to limited time and information available during parole release decisions, parole board members might rely on experiential processing states specific to prior decision outcomes and relevant future decisions. If this occurs, then emotions will likely influence rational processing, leading to emotion-driven decisions. It is likely that if parole board members feel guilty, responsible, and blameworthy, for releasing an inmate who later committed a crime, then guilt might act as a heuristic, providing relevant decision-making information, through experiential processing, resulting in retributive subsequent parole
release decisions (i.e., more punitive decisions).

Attributions, emotions, and information processing related to previous parole decisions are predicted to play a large role in parole board members’ subsequent decisions, especially when previous decisions result in crimes committed by inmates that the parole boards decide to release. However, it is important not to neglect the possibility that personality traits and attitudes might play a role in how these processes work. Several individual differences will be discussed in the next chapter in order to better understand how potential differences among the members of the public and parole board members might relate to attributions of responsibility and blame, emotional reactions to parolees’ crimes, and parole board decisions.
Chapter 7: Individual Differences

Individuals often hold certain attitudes related to legal processes, which might play an important role in how individuals assign blame. These attitudes might also be related to parole board members’ punitiveness toward parole eligible inmates. When testing attribution and decision-making models, it is important to control for individual characteristics that might also explain variation in how individuals make attributions and decisions. Several individual differences have been identified in the literature as important to account for in these types of models, and they include legal authoritarianism, criminal attributions, need for cognition, faith in intuition, need for affect, just world beliefs, locus of control, and attributional complexity.

Legal Authoritarianism

Authoritarianism is related to views of an orderly and predictable society in which convention, laws, and norms are expected to be authoritative and guide behavior (Allport, 1954; Adorno, Frenkel-Brunswik, Levinson, & Sanford, 1950; Byrne & Kelley, 1981; Kravitz, Cutler, & Brock, 1993). Authoritarians tend to be punitive toward individuals who do not adhere to societal rules and guidelines, and they make judgments about these individuals off of simple, sometimes arbitrary information related to categories and stereotypes (Allport, 1954; Adorno et al., 1950; Byrne & Kelley, 1981; Kravitz et al., 1993; Narby, Cutler, & Moran, 1993).

Legal authoritarianism, a subset of authoritarian beliefs, is the belief that law takes precedent over everything (Kravitz, Cutler, & Brock, 1993). These beliefs often include legal officials as the highest authority and the idea that all individuals should abide by the law that they enforce. Legal authoritarianism was a moderate predictor of general punitiveness and
guilt verdicts (Narby, Cutler, & Moran, 1993), and it was also related death penalty support, longer sentences, higher endorsement of aggravating circumstances, and lower endorsement of non-statutory mitigating circumstances (Butler & Moran, 2007). Therefore, legal authoritarianism might be related to parole board members’ punitiveness toward inmates and the belief that the sentence imposed on the inmate is the sentence they deserve to serve. Legal authoritarian members of the public might also blame parole board members more for parolees’ crimes because of the belief that the inmates should stay in prison and serve their entire sentence, rather than be released early.

**Criminal Attributions**

How parole board members understand crime might also relate to their perceptions of inmates and parolees. Individuals who attribute crime to the individual, (suggesting that people commit crime because they are evil, greedy, or just criminally minded) might be less likely to release inmates on parole. For instance, attributing criminal acts to the person, rather than the situation, is associated with increased perceptions of danger, the belief that the offender should be punished, and less support for offender rehabilitation (Falco & Turner, 2014; Pfeffer, Maxwell, & Briggs, 2012; Yelderman & Miller, in press).

In contrast, individuals who attribute crime to poverty, socialization, or other situational description might be more likely to release inmates (whom they see as deserving of release) on parole. For instance, individuals who view crime as a result of social factors, rather than personal factors, were more supportive of offender rehabilitation. Thus parole board members who view crime as a social product might be more support of releasing inmates on parole, but members who attribute crime to personal factors might be more supportive of denying parole and extending punishment in prison.
Need for Cognition and Faith in Intuition

As described in the section on information processing, certain situations can increase the likelihood of processing information rationally or experientially. Moreover, individuals might have a specific orientation toward processing information one way more than the other (Epstein et al., 1996). Need for cognition measures rational processing tendencies, and faith in intuition measures experiential processing tendencies. Individuals might be more likely to assign blame and make punitive decisions if they have a tendency to process information experientially (Miller, Wood & Chomos, 2013). The opposite is true for individuals who have a tendency to process information rationally, such that higher need for cognition is related to less punitiveness (Sargent, 2004). It is also possible that rational thinking will be unrelated to punitiveness, and instead related to risk-appropriate release ratings (e.g., release recommendations will be more reflective of risk rather than need for cognition scores).

Need for Affect

Need for affect refers to the extent to which individuals are motivated and willing to consult their emotions for information about situations (Maio & Esses, 2001). This is consistent with literature suggesting that people often consult their mood when making judgments (Clore, 1992; Schwarz, 1990; Schwarz & Clore, 2003). According to cognitive-experiential self-theory (CEST), individuals typically process information through an emotionally driven system and a rationally driven system, and these two systems can interact, occur in parallel, and influence each other (Epstein, 1990; 2008; Epstein et al., 1992). Consulting one’s emotions might be characteristic of the rational system attempting to understand the experiential system (Epstein, 2008). This might lead to rationally based judgments influenced by emotional states, and this might occur more for individuals higher
in need for affect. Therefore, individuals high in need for affect might be more likely to behave in ways consistent with emotions. Emotions might only relate to judgments of blame when high in need for affect, for both the public and parole board members. Moreover, emotions might only relate to subsequent release decisions for parole board members who are also high in need for affect. Parole board members’ emotion might only drive judgements of blame and

**Just World Beliefs**

Just world beliefs describe the extent to which an individual believes that the world is a just place and individuals’ experiences are in line with their deservingness of those experiences (Rubin & Peplau, 1975). Just world beliefs typically focus on victims getting what they deserve, suggesting that individuals who endorse just world beliefs have less sympathy toward victims, providing justifications for why individuals become victims (Rubin & Peplau, 1975). However, in the current research the victim is a young girl; therefore, this hypothesis is highly unlikely.

Just world beliefs not only relate to deservingness of victims, but also to deservingness of offenders, such that offenders who cause harm should get what they deserve as well (Butler & Moran, 2007; Rubin & Peplau, 1975). Endorsement of just world beliefs might increase the desire for vengeance and punitiveness against responsible offenders. This punitiveness toward responsible parties might then generalize to all parties similar to the party who caused the harm (Rubin & Peplau, 1975). According to this notion, it is likely that parolees seen as responsible for crimes will evoke punitive attitudes toward all parolees, among parole board members who endorse just world beliefs. These punitive attitudes might then lead to an increased likelihood of parole denial in subsequent decisions. However, just
world beliefs might not influence parole boards’ decisions or the public’s attributions of blame either. No specific predictions are made.

Locus of Control

Individuals’ understanding of their own control in life outcomes is characterized by the concept of locus of control (Ferguson, 1993). When life occurrences are considered to be predictable and controllable, individuals experience ownership and volition; this is descriptive of personal or internal locus of control. However, if individual attribute life occurrences to greater societal factors or fate, this describes an external locus of control.

Parole board members with an internal locus of control might feel more responsible for an outcome because they perceive themselves as being able to control that outcome. In contrast parole board members with external locus of control might assume that greater societal factors led parolees to commit crimes and, thus, feel less responsible.

Attributional Complexity

Attributional complexity describes the extent to which individuals have more complex attributional schemata and seek more complex explanations for events (Fletcher, Danilovics, Fernandez, Peterson, & Reeder, 1986). Complex attributional schemata involve high motivation for complex attributions, preferences for complex attributional explanations, metacognitive processes, incorporation of interpersonal interactions in attributional explanations, inclusion of complex internal attributions, inference of abstract external attributions, and incorporation of past histories (Fletcher et al., 1986).

Attributional complexity might be related to individuals’ ability and motivation to process attributional sequences. Whereas attributionally simple individuals (those who have more simple attributional schemata) might attribute causality, responsibility, or blame to a
single concrete antecedent of an event or outcome, attributionally complex individuals might be able to incorporate attributions related to a combination of antecedents, both concrete and abstract. Because attributional complexity influences the extent to which certain event antecedents are deemed causal, responsible, or blameworthy, perceptions of behaviors related to these attributions are likely also influenced by individuals’ attributional complexity.

In attributions of vicarious responsibility, responsibility is assigned to a third party, not directly involved in the action that evoked the outcome. The process of attributing vicarious responsibility to parole board members for releasing inmates into society who then commit a crime involves processing attributional information beyond the causal party (the parolee). This would include attributionally complex processes including interpersonal relations, abstract external factors, complex explanations, and incorporating past events. Whereas attributionally complex individuals would scrutinize the parole board, release decision, the parolee, attributionally simple individuals might stop at attributing responsibility to the parolee because he was the single concrete cause of the crime. Therefore, attributionally simple individuals might attribute responsibility exclusively to the parolee, but attributionally complex individuals might attribute responsibility to the parole boards because they are able to follow the complex attributional sequences in attributions of vicarious responsibility.

Lastly, if attributions of responsibility and blame evoke emotions toward the responsible and blameworthy parties, then differences in attributions of responsibility might lead to different emotions, thus motivating different behaviors (Ellsworth & Scherer, 2003). This suggests that attributionally simple individuals might experience emotions differently than attributionally complex individuals, and thus behave differently as well.
Regarding parole board members, attributionally simple individuals might attribute responsibility solely to the parolee, thus not experience regret or guilt and not change decision-making behaviors. On the other hand, attributionally complex individuals might attribute responsibility to themselves when releasing inmates who commit a violent crime shortly after release. This might lead to regret and guilt, motivating parole board members to make more punitive decisions in the future.

It is important to note that attributional complexity is related to a lower likelihood of making the fundamental attribution error and is negatively related to punitiveness (Devine, 1989; Tam, Au, & Leung, 2008). Attributionally complex individuals might be better able to understand that parole boards cannot possibly predict future dangerousness of inmates accurately 100% of the time. Thus, it is also possible that attributional complexity might decrease perceptions of parole board responsibility.

The current research proposes that parole boards will be held responsible (through attributions of vicarious responsibility) for releasing inmates who commit murder shortly after release; however, the extent to which responsibility is attributed to the parole board might depend on the attributional complexity of the individual making the attributions. These attributions of responsibility will then lead to emotions and blame toward parole boards and this will occur for both members of the public and parole board members; the extent to which emotions influence blame might depend on individuals’ need for affect.

For parole board members, blame will further lead to subsequent anticipatory guilt, which will lead to more punitive subsequent release decisions. The influence of anticipatory guilt on subsequent behaviors will occur because parole board members will process case related information during subsequent decisions experientially relying on their emotions.
Chapter 8: Overview and Hypotheses

Parole board members often make many decisions within a day and often many within an hour (Carroll, 1978; Danzinger et al., 2011; Nevada Board of Parole Commissioners Hearing Agenda, 2014). In this decision-making framework, parole board members might find it difficult to avoid decisions based on limited information or on their emotional reactions to various aspects of their work. As such, parole board members’ attributions of responsibility and blame for releasing inmates who commit murder after release might lead to feelings of guilt and bias in subsequent release decisions. The current research is important in that it tests possible circumstances in which attributions and emotions influence parole decision-making. This study will help researchers and legal professionals better understand these processes and factors leading to potential bias in parole board members’ decisions.

This study will address the relationships between the public perspective and mock parole board member perspectives, temporal contiguity, attributions of vicarious responsibility and blame, emotion, information processing, individual differences, and parole release decisions. There are three specific purposes, or goals, of the current research.

The first purpose of this study is to test a new model of vicarious responsibility of parole board members for releasing inmates who then commit murder. This new model utilizes dimensions of knowledge, preventability, answerability, and accountability to predict vicarious responsibility compared to previous models’ use of causality, knowledge, intentionality, moral wrongfulness, coercion, and controllability. The first purpose is also to test these perceptions from perspectives of both members of the public and mock parole board members.
A second purpose of this study is to test a new model of blame, utilizing the proposed model of vicarious responsibility and emotion, instead of previous models’ use of responsibility and acceptance of justifications or excuses. These proposed models of vicarious responsibility and blame will be applied to both the public’s and parole board members’ perspectives of responsibility and blame of parole boards for releasing inmates who then commit murder after release. These models of blame and vicarious responsibility will also be tested after accounting for potential relationships between individual difference measures and blame.

A third purpose of the study is to test the effects of blame, anticipatory emotion, and information processing states on parole board members’ subsequent release decisions for other inmates while also accounting for the relationships between individual differences and decision-making. Emotion might influence self-attributions of blame, and blame might then be positively related to anticipatory emotion and punitiveness in parole board members’ subsequent release decisions for those who process emotionally.

Participants will be assigned to either act as a member of the public or as a mock parole board member. Participants in the “public” condition will read about a parole board decision followed by a crime that occurs either two days, two months, two years afterward, or not at all. Then they will rate their emotional reactions and attributions for the parole board’s decision.

Participants in the “parole” condition will be asked to imagine themselves as part of a parole board, and they will be tasked with casting the determining vote for or against an inmate’s release (i.e. the other parole board members are evenly split and the decision rule is that the majority vote wins). If participants are in favor of release, the participants will then
either read about a crime committed by the parolee whom they just released (the time between release decision and crime will be varied the same as in the public condition: two days, two months, two years) or skip to the individual differences and subsequent decisions (this acts as a control condition). Participants who choose not to release the inmate will skip to the individual differences and demographic measures. These individuals will not be included in the final analyses. Participants who do release the inmate will then rate their emotional reactions and various attributions for their own behaviors and the offender’s behaviors. Then, participants will complete information processing measures and make three subsequent release decisions (unrelated to the initial decision) for three different inmates who differ on their criminal histories, time served, and ratings of their danger to society. This will conclude the study.

The following hypotheses describe the predictions in the current research. Hypotheses are separated by the variables involved in each set of hypotheses, and they are listed from simplest hypothesis to the most complex hypothesis.\(^{10}\)

**Comparing Public and Mock Parole Board Members’ Perceptions**

Hypothesis 1: There will be a main effect of condition (parole vs. public) on perceptions and attributions (DVs). Participants in the “public” condition, compared to participants in the “parole” condition, will report significantly higher ratings of perceptions of knowledge, preventability, answerability, accountability, controllability, causality, intentionality, moral wrongfulness, and blame. This tests attribution theory’s actor/observer

\(^{10}\) For all hypotheses, IV = Independent Variable; DV = Dependent Variable; Med = Mediator; Mod = Moderator
hypothesis (Jones & Nisbett, 1972)\(^{11}\).

**Proposed Theoretical Model of Vicarious Responsibility**

Hypothesis 2: Vicarious responsibility will be measured by a latent variable with knowledge, preventability, accountability, and answerability as indicators, and this model will fit the data well according to Kline’s (2011) SEM model fit criteria.\(^{12}\)

**Effects of Temporal Contiguity on Perceptions**

Hypothesis 3: There will be a main effect of temporal contiguity (IV) on attributions of vicarious responsibility (DV; measured by a latent variable with knowledge, preventability, answerability, accountability as indicators). Specifically, participants in both “public” and “parole” conditions will report significantly higher ratings of vicarious responsibility (regarding the parole board) when the crime was committed 2 days after the inmate’s release compared to 2 months and 2 years and also when comparing 2 months to 2 years. This tests the effects of temporal contiguity on attributions of vicarious responsibility (Buehner & May, 2003; Kelley & Michela, 1980; Oakes & Kannass, 1999; Shanks et al., 1989). Hypotheses 1 and 2 specifically address the first purpose of this research, which is to test a newly proposed model of vicarious responsibility.

Hypothesis 4: The effect of temporal contiguity (IV) on attributions of vicarious responsibility (DV) will be moderated by attributional complexity (Mod), such that ratings of vicarious responsibility will be significantly higher when the crime was committed 2 days compared to 2 months after the inmate’s release and also when comparing 2 months to 2

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\(^{11}\) Though this theory has been critiqued, it provides an initial reasoning as to why differences might exist between public and parole perspectives.

\(^{12}\) It is possible that a direct measurement of responsibility, representative of ‘role’ responsibility (Hart, 1968), might also be important to include as an indicator in this model of vicarious responsibility. However, modeling dimensions only, is similar to that of Shaver (1985) and Gailey and Falk (2008).
years. However, this relationship will be stronger for individuals who are higher (compared to lower) on attributional complexity. This tests the effects of attributional complexity on attributions of vicarious responsibility (Fletcher et al., 1986).\textsuperscript{13}

**Effects of Temporal Contiguity and Attributions of Vicarious Responsibility on Emotion**

Hypothesis 5a: There will be a main effect of self-reported attributions of vicarious responsibility (IV) on anger (DV) for participants in the “public” condition, such that ratings of attributions of vicarious responsibility will be positively related to self-reported anger. This tests the appraisal theory of anger (Horberg et al., 2011; Keltner & Lerner, 2010; Roseman, 1991).

Hypothesis 5b: There will be a main effect of vicarious responsibility (IV) on guilt (DV) for participants in the “parole” condition, such that ratings of attributions of vicarious responsibility will be positively related to self-reported guilt. This tests the appraisal theory of guilt (Horberg et al., 2011; Roseman et al., 1990; Smits & De Boeck, 2003).

Hypothesis 6: The relationship between vicarious responsibility (IV) and emotion (DV) will be moderated by counterfactual thinking (Mod), such that vicarious responsibility will be positively related to self-reported guilt and anger and this relationship will be stronger when individuals report more counterfactual thoughts. This tests the theory of counterfactual thinking (Epstude & Roese, 2008; Kahneman & Varey, 1990; Roese, 1997).

\textsuperscript{13} In all hypotheses involving attributional complexity as a moderator, an alternative hypothesis is that the relationship between temporal contiguity and responsibility will be weaker or non-existent when also scoring higher on attributional complexity. This tests the ameliorating effect of attributional complexity. It is possible that individuals who are able to make more complex attributions will be able to better determine and understand that the parole release decision was not associated with the parolee’s decision to commit a crime after being released.
Hypothesis 7: There will be an effect of temporal contiguity (IV) on emotion (DV), such that participants will report significantly higher levels of anger and guilt when the crime was committed 2 days after the inmate’s release compared to 2 months or 2 years and also when comparing 2 months to 2 years. However, this relationship will be mediated by attributions of vicarious responsibility (Med), such that increased perceptions of temporal contiguity (IV) between the release decision and the crime will be related to higher ratings of vicarious responsibility (Med), which will then be positively related to higher ratings of self-reported anger and guilt (DV). Also, the relationship between temporal contiguity (IV) and vicarious responsibility (Med) will be moderated by attributional complexity (Mod), and the relationship between vicarious responsibility (Med) and emotions (DV) will be moderated by counterfactual thinking (Mod). This tests the current theoretical moderated mediation model of vicarious responsibility and emotion appraisals (Epstude & Roese, 2008; Horberg et al., 2011; Kahneman & Varey, 1990; Keltner & Lerner, 2010; Roese, 1997; Roseman, 1991; see Model 1 below for a representation of Hypothesis 7).

*Model 1. Moderate mediation model of temporal contiguity’s effect on emotion.*
Effects of Temporal Contiguity, Attributions of Vicarious Responsibility, and Emotion on Attributions of Blame

Hypothesis 8: There will be a main effect of temporal contiguity (IV) on blame (DV), such that participants will report significantly higher ratings of blame toward the parole board when the crime is committed 2 days after the inmate’s release compared to 2 months or 2 years and when comparing 2 months to 2 years. This tests the effects of temporal contiguity on attributions of blame (Buehner & May, 2003; Kelley & Michela, 1980; Oakes & Kannass, 1999; Shanks et al., 1989).

Hypothesis 9: There will be a main effect of guilt and anger on blame (DV), such that participants’ self-reported ratings of guilt and anger will be positively related to attributions of blame. This tests the effect of emotion on blame (Alicke, 2000; Alicke et. al., 2008; Alicke, & Rose, 2012; Keltner & Lerner, 2010; Shaver, 1985; Smits & De Boeck, 2010).

Hypothesis 10: The relationship between emotion (IV) and blame (DV) will be moderated by need for affect (Mod), such that participants’ self-reported guilt and anger will be positively related to attributions of blame, and this relationship will be stronger for individuals high, compared to low, in need for affect. This tests the theory of need for affect on participants’ use of emotion in judgments and decision-making (Maio & Esses, 2001).

Hypothesis 11: The effect of temporal contiguity (IV) on attributions of blame (DV) will be mediated by attributions of vicarious responsibility (Med) and self-reported guilt and anger (Med). Specifically, participants will report significantly higher ratings of blame toward the parole board when the crime is committed 2 days after the inmate’s release compared to 2 months or 2 years and also when comparing 2 months to 2 years. This relationship will be mediated by attributions of vicarious responsibility and emotion, such
that participants will report higher ratings of vicarious responsibility when the crime is committed 2 days after the inmate’s release compared to 2 months or 2 years and 2 months compared to 2 years. Higher ratings of vicarious responsibility will then be positively related to self-reported anger and guilt, which will then be positively related to attributions of blame.

The relationship between temporal contiguity (IV) and attributions of vicarious responsibility (Med) will be moderated by attributional complexity (Mod). Participants will report higher ratings of attributions of vicarious responsibility when the crime is committed 2 days after the inmate’s release compared to 2 months or 2 years and when comparing 2 months to 2 years, and this relationship will be stronger for participants who also report higher ratings of attributional complexity compared to lower ratings.

The relationship between attributions of vicarious responsibility (Med) and emotion (Med) will be moderated by counterfactual thinking (Mod), such that vicarious responsibility will be positively related to self-reported anger and guilt, and this relationship will be stronger when individuals report more counterfactual thoughts.

Also, the relationship between emotion (Med) and blame (DV) will be moderated by need for affect (Mod). Participants’ ratings of self-reported guilt and anger will be positively related to ratings of blame and this relationship will be stronger when participants also report higher ratings of need for affect.

This hypothesis tests the proposed theoretical model of blame incorporating vicarious responsibility and appraisal theory of emotions (see Model 2 below), and Hypotheses 8 through 11 address the second purpose of this research.
Model 2. Proposed moderated mediation model of temporal contiguity of crime on attributions of vicarious responsibility, emotion, and blame.

Note. The proposed model of blame will be tested against four alternative models of responsibility and blame.

Hypothesis 12a: The effect of temporal contiguity (IV) on attributions of blame (DV) will be mediated by Shaver’s (1985) model of attributions of responsibility (Med).

Specifically, participants will report significantly higher ratings of blame when the crime is committed 2 days after the inmate’s release compared to 2 months or 2 years and also when comparing 2 months to 2 years. This relationship will be mediated by attributions of responsibility (measured as a latent variable with causality, knowledge, intentionality, coercion, and moral wrongfulness as indicators) such that participants will report higher ratings of responsibility when the crime is committed 2 days after the inmate’s release compared to 2 months or 2 years and 2 months compared to 2 years. Higher ratings of responsibility will then be positively related to attributions of blame. The relationship between attributions of responsibility (Med) and blame (DV) will be moderated by justifications and excuses, such that vicarious responsibility will be positively related to blame and this relationship will be stronger when individuals report lower ratings (compared
to higher ratings) of justifications and excuses. This tests Shaver’s (1985) model of responsibility and blame (see Model 3a below).

Hypothesis 12b: Hypothesis 12a will also be tested with coercion, causality, knowledge, intentionality, and moral wrongfulness as predictors of responsibility rather than indicators of a latent variable of responsibility (see Model 3b below).

**Model 3a.** Moderated mediation model of Shaver’s (1985) model of blame.

**Model 3b.** Moderated mediation model of Shaver’s (1985) model of blame with coercion, causality, knowledge, intentionality, and moral wrongfulness as predictors rather than latent variable indicators.
Hypothesis 13a: The effect of temporal contiguity (IV) on attributions of blame (DV) will be mediated by Shultz et al.’s (1987) model of vicarious responsibility (Med) and emotion (Med). Because Shultz et al. (1987) used a measure of preventability and called it controllability, both measures are used in this hypothesis.

Specifically, participants will report significantly higher ratings of blame toward the parole board when the crime is committed 2 days after the inmate’s release compared to 2 months or 2 years and also when comparing 2 months to 2 years. This relationship will be mediated by ratings of controllability and preventability, such that participants will report higher ratings of controllability and preventability when the crime is committed 2 days after the inmate’s release compared to 2 months or 2 years and 2 months compared to 2 years. Ratings of controllability and preventability will then be positively related to ratings of responsibility. Responsibility will then be positively related to blame.

Also, using Shultz et al.’s (1987) model of responsibility, emotion will be tested as mediating the relationship between responsibility and blame, such that responsibility will be positively related to ratings of anger and guilt, which will be positively related to blame. This tests Shultz et al.’s (1987) model of vicarious responsibility and the proposed mediating role of emotions (see Model 4a below).

Hypothesis 13b: Similarly, the Shultz et al., (1987) model will be tested using a latent variable to model vicarious responsibility. In this model, controllability, preventability, and a direct measure of responsibility will be used as indicators for the latent variable (see Model 4b below).
**Model 4a.** Mediation model using Shultz et al.’s (1987) model of vicarious responsibility.

Hypothesis 14: The effect of temporal contiguity (IV) on attributions of blame (DV) will be mediated by attributions of vicarious responsibility (Med) and self-reported emotion (Med). Specifically, participants will report significantly higher ratings of blame toward the parole board when the crime is committed 2 days after the inmate’s release compared to 2 months or 2 years and also when comparing 2 months to 2 years. This relationship will be mediated by attributions of vicarious responsibility and emotion, such that participants will report higher ratings of vicarious responsibility when the crime is committed 2 days after the
inmate’s release compared to 2 months or 2 years and when comparing 2 months to 2 years. Higher ratings of vicarious responsibility will then be positively related to self-reported negative emotion and negatively related to self-reported positive emotion. Self-reported negative emotion will then be positively related to attributions of blame, and self-reported positive emotion will be negatively related to blame.

The relationship between temporal contiguity (IV) and attributions of vicarious responsibility (Med) will be moderated by attributional complexity (Mod). Participants will report higher ratings of self-attributions of vicarious responsibility when the crime is committed 2 days after the inmate’s release compared to 2 months or 2 years and when comparing 2 months to 2 years, and this relationship will be stronger for participants who also report higher ratings of attributional complexity compared to lower ratings.

The relationship between attributions of vicarious responsibility (Med) and emotion (Med) will be moderated by counterfactual thinking (Mod), such that vicarious responsibility will be positively related to negative emotion and negatively related to positive emotion and these relationships will be stronger when individuals report more counterfactual thoughts.

Also, the relationship between positive and negative emotion (Med) and blame (DV) will be moderated by need for affect (Mod). Participants’ ratings of self-reported negative emotion will be positively related to ratings of blame and this relationship will be stronger when participants also report higher ratings of need for affect. Participants’ ratings of self-reported positive emotion will be negatively related to ratings of blame and this relationship will be stronger when participants also report higher ratings of need for affect.

This hypothesis tests the proposed theoretical model of blame incorporating vicarious responsibility and the valence theory of emotions (Clore, 1992; Schwarz, 1990; Schwarz &
Clore, 2003; see Model 5 below).

Hypothesis 15: There will be a significant mediating effect of regret (Med) on the relationship between attributions of vicarious responsibility (Med) and blame (DV) in the model in Hypothesis 11, such that vicarious responsibility will positively be related to regret, which will be positively related to blame. Also, regret will be a better predictor of blame than guilt or anger. All other aspects of the models will be kept the same. This tests regret theory (Loomes & Sugden, 1982).

**Effects of Temporal Contiguity, Attributions of Vicarious Responsibility, Emotion, Attributions of Blame, and Information Processing on Subsequent Release Decisions.**

The following hypotheses will be applied only to participants in the “parole” condition. Also, the term “subsequent decisions” refers to the three parole decisions that the participants make after the initial decision. These decisions involve completely different inmates from the first decision.

Hypothesis 16: There will be a main effect of temporal contiguity (IV) on subsequent release decisions (DV), such that participants will report significantly lower ratings of parole release when the crime occurs 2 days after the inmate’s release compared to 2 months, 2 years or no occurrence of a crime, and also when comparing 2 months to 2 years or no occurrence of a crime. Lastly, participants will report significantly lower ratings of parole release when the crime occurs 2 years after release compared to no occurrence of a crime. This hypothesis tests whether the effect of time between a release decision and crime committed by a parolee on subsequent decisions levels off or becomes negligible in its influence on subsequent parole decisions as it increases (Buehner & May, 2003; Kelley & Michela, 1980; Oakes & Kannass, 1999; Shanks et al., 1989). This is the only hypothesis that includes the control condition because in the control condition, individuals will not rate attributions and emotions since no crime has occurred.

Hypothesis 17: There will be a main effect of blame (IV) on anticipatory guilt (DV), such that participants’ ratings of self-attributions of blame will be positively related to anticipatory guilt reported when facing subsequent release decisions. This tests the effect of blame on associated emotions and the experience of anticipated emotion (Alicke, 2000; Alicke et al., 2008; Alicke & Rose, 2012; Shultz & Schleifer, 1983).

Hypothesis 18: There will be a main effect of anticipatory guilt (IV) on ratings of parole release (DV), such that mock parole board members’ anticipatory guilt will be negatively related to ratings of parole release. This tests the affect heuristic (Loewenstein et al., 2001; Shultz & Schleifer, 1983; Slovic & Peters, 2006; Slovic et al., 2004)

Hypothesis 19: There will be a main effect of anticipatory guilt (IV) on ratings of parole release (DV), such that participants’ ratings of anticipatory guilt (IV) will be
negatively related to ratings of parole release (DV). However, this relationship will be moderated by information processing states (Mod), such that ratings of anticipatory guilt will be negatively related to ratings of parole release only for participants who process information experientially, but not those who process information rationally. This hypothesis tests CEST (Epstein 1990, 2008).

Hypothesis 20: The relationship between temporal contiguity (IV) and ratings of parole release (DV) will be serially mediated by self-attributions of vicarious responsibility (Med), guilt (Med), self-attributions of blame (Med), and anticipatory guilt (Med). Specifically, participants will report high ratings of self-attributions of vicarious responsibility when the crime is committed 2 days after the inmate’s release compared to 2 months or 2 years, and also when comparing 2 months to 2 years. Vicarious responsibility will then be positively related to self-reported guilt, which will be positively related to self-attributions of blame. Self-attributions of blame will then be positively related to anticipatory guilt, which will be negatively related to ratings of parole release (punitive). The relationship between attributions of vicarious responsibility (Med) and guilt (Med) will be moderated by counterfactual thinking (Mod), such that vicarious responsibility will be positively related to guilt and this relationship will be stronger when individuals report more, compared to less, counterfactual thoughts.

The relationship between guilt (Med) and blame (Med) will be moderated by need for affect (Mod). Participants’ ratings of self-reported guilt will be positively related to ratings of blame and this relationship will be stronger when participants also report higher ratings, compared to lower ratings, of need for affect.

Also, the relationship between anticipatory guilt (Med) and ratings of parole release
(DV) will be moderated by information processing states (Mod), such that anticipatory guilt will be negatively related to ratings of parole release for participants who process information experientially and they will be unrelated for participants who process information rationally. This hypothesis tests the current proposed model of vicarious responsibility and blame related to parole release decisions. In order to compare the proposed model to previous models, the same model will be tested against three other models listed in detail in the analyses section (see Model 6 below). Hypotheses 13 through 17 address the third purpose of the current research.

The model described in Hypothesis 17 will also be tested against several alternative models. Each of these models is hypothesized as a competing explanation for the relationship between temporal contiguity and subsequent decisions.

Hypothesis 21: There will be a main effect of temporal contiguity (IV) on ratings of parole release (DV), and this relationship will be mediated by attributions of responsibility and blame. Specifically, individuals will report higher ratings of attributions of responsibility (defined as a latent variable by the predictors of causality, knowledge, intentionality, moral wrongfulness, and coercion) when the crime is committed 2 days after the inmate’s release compared to 2 months or 2 years, and also when comparing 2 months to 2 years. Attributions of responsibility will then be positively related to blame, which will be negatively related to ratings of parole release.

The relationship between responsibility (Med) and blame (Med) will be moderated by perceptions of justifications and excuses, such that responsibility will be positively related to blame, but this relationship will be weaker or non-existent when participants also hold higher perceptions of justifications or excuses, compared to lower.
Model 6. Moderated mediation model of temporal contiguity effects on subsequent parole release decisions.

The relationship between blame and ratings of parole release will be moderated by information processing states such that blame will predict subsequent decisions for individuals who process information experientially, but not for those who process information rationally. This tests Shaver’s (1985) and Gailey and Falk’s (2008) model of responsibility (see Model 7a). This same theory will also be tested using the approach in which each dimension of responsibility individually predicts blame and is individually moderated by justifications and excuses (see Model 7b).

Hypothesis 22: There will be a main effect of temporal contiguity (IV) on ratings of parole release (DV), and this relationship will be mediated by attributions of vicarious responsibility (Med) and blame (Med). Specifically, individuals will report higher ratings of self-attributions of vicarious responsibility when the time between the crime and the inmate’s
release is 2 days, compared to 2 months or 2 years, and also when comparing 2 months to 2 years. However, vicarious responsibility will be defined as a latent variable with controllability, preventability, and self-reported responsibility as indicators. Attributions of vicarious responsibility will then be positively related to blame, which will then be negatively related to ratings of parole release.

The relationship between attributions of vicarious responsibility and blame will either be mediated by guilt (such that vicarious responsibility will be positively related to guilt which will be positively related to blame) or moderated by justifications/excuses (such that vicarious responsibility will be positively related to blame and this relationship will be stronger when individuals report lower ratings of justifications/excuses; both will be tested).

Model 7a. Shaver’s (1985) and Gailey and Falk’s (2008) model of responsibility and blame and the effects on subsequent parole release decisions.

The relationship between blame and ratings of release decisions will be moderated by information processing such that blame will predict more punitive subsequent decisions for
individuals who process information experientially, but not for those who process
information rationally (see Model 8 below). This tests the Shultz et al. (1987) model of
vicarious responsibility.

Model 7b. Shaver’s (1985) and Gailey and Falk’s (2008) model of responsibility and blame
and the effects on subsequent parole release decisions using a predictor approach to defining
responsibility.

temporal contiguity, blame, and subsequent parole decisions.
Hypothesis 23: There will be a main effect of temporal contiguity (IV) on ratings of parole release subsequent release decisions (DV), and this relationship will be mediated by valenced emotion and blame. Specifically, individuals will report higher ratings of self-attributions of vicarious responsibility (proposed model) when the time between the crime and the inmate’s release is 2 days, compared to 2 months or 2 years, and also when comparing 2 months to 2 years. Attributions of vicarious responsibility will then be positively related to negative emotions, which will be positively related to attributions of blame, and negatively related to positive emotions, which will be negatively related to blame. Blame will be negatively related to ratings of parole release.

The relationship between temporal contiguity and attributions of responsibility will be moderated by attributional complexity, such that individuals will report higher ratings of vicarious responsibility when the crime committed is 2 days after the inmate’s release compared to 2 months and 2 years, and also when comparing 2 months to 2 years. This relationship will be stronger when participants score higher on attributional complexity, compared to lower. The relationship between attributions of vicarious responsibility and negative emotions will be moderated by counterfactual thinking, such that the relationship between responsibility and negative emotions will be stronger when participants report more counterfactual thoughts, compared to less. The relationship between attributions of vicarious responsibility and positive emotions will be moderated by counterfactual thinking, such that the relationship between responsibility and positive emotions will be stronger when participants report more counterfactual thoughts, compared to less.

The relationship between negative emotions and blame will be moderated by need for affect, such that the positive relationship between negative emotions and blame will be
stronger for individuals who score high, compared to low, in need for affect.

The relationship between blame and ratings of parole release will be moderated by information processing such that blame will predict subsequent decision when individuals process information experientially, but not when they process information rationally. This tests the valence model of mood and emotion (see Model 9; Bodenhausen et al., 1994; Clore, 1992; Forgas, 1994, 1995; Schwarz & Clore, 2003).

Hypothesis 24: There will be a significant mediating effect of regret (Med) on the relationship between attributions of vicarious responsibility (Med) and blame (DV) in models in Hypotheses 20 and 22, such that vicarious responsibility will be positively related to regret, which will be positively related to blame.

Also, there will be a significant mediating effect of anticipatory regret (Med) on the relationship between blame (Med) and subsequent decisions (DV), such that blame will be positively related to anticipatory regret, which will be positively related to punitiveness in subsequent decisions and the inability to differentiate among the three cases. This will only be applied to the model in Hypothesis 20.

Also, regret will be a better predictor of blame than guilt. All other aspects of the models will be kept the same. This tests that theory of regret and anticipatory regret (Gelberg, 2002; Guthrie, 1999; Loomes & Sugden, 1982).

Hypothesis 25a: It is possible that blame is not derived from responsibility but rather from shared constituents based in the literature (Malle et al., 2014). Thus, blame is not predicted by responsibility or emotion but a series of social cognitive judgments. Malle et al.’s (2014) path model of blame will be tested. It is hypothesized that judgments of causality will positively predict judgments of intentionality, and judgments of intentionality will positively predict judgments of blame. However, it is also hypothesized that judgments of causality and intentionality will predict judgments of obligation (measured as the single item of preventability used in other models). In this case causality will positively predict obligation and intentionality will negatively predict obligation or be unrelated to it. Judgments of obligation will then positively predict judgments of capacity (measured by a single item of foreseeability used in the aggregate measure of ‘knowledge’ in other theoretical models), and judgments of capacity will positively predict blame. This tests Malle et al.’s (2014) path model of blame (see Model 10a below).

Hypothesis 25b: Malle et al.’s (2014) theoretical model will also be applied to decision-making, such that blame will negatively predict parole release decisions.


There are no specific hypotheses related to the individual differences measures, which have not been previously specified as moderating or mediating variables. For the purposes of this study, their potential relationships with blame and decision-making are acknowledged but not a primary interest. Instead, they will be treated as control variables added to the proposed theoretical models of vicarious, responsibility and blame and decision-making to test the robustness of these models.
Chapter 9: Method

In this chapter, a pilot study will be described in detail, followed by the participants, procedures, and measures of the main study. The purpose of the pilot study is to test procedural elements and measures in the main study in order to ensure the soundness of the overall methodology and study design.

Pilot Study

Prior to the main study, a pilot study tested participants’ responses to three parole release decisions, which were the same release decisions intended to be included in the main study (described in more detail in the procedures of the main study). The pilot study’s purposes, methods, and results are presented below.

**Purpose and procedure.** The purpose of this pilot study was two-fold; first, it tested whether or not participants chose to release the inmate in the initial mock parole decision. Because this study examined various processes after releasing an inmate, the goal was for 97% or more of the participants to choose to release the inmate.\(^\text{14}\) This ensured the sample size would be adequate and that nearly all of the participants would complete the study in its entirety as most of the measures depended on an initial decision to release the inmate. The second purpose was to test whether or not participants’ release ratings of inmates during subsequent release decisions would coincide with the dangerousness of the inmates (perceived dangerousness differed based on inmate history and release criteria). Specifically, this tested whether or not participants are able to differentiate the levels of risk related to each inmate’s case history/criteria and make release decisions accordingly.

\(^{14}\) Although 97% seems high, it is set as a goal. Depending on how close the results are to meeting this criteria, this goal percentage will be re-considered as an absolute cutoff for continuing with data collection.
In the pilot study, 200 participants were recruited from MTurk and compensated $0.25. After agreeing to participate, all participants read instructions describing their role as a mock parole board member on a 7-member parole board, called the 7th member paradigm (see Appendix A). The 7th member paradigm was developed for this study in order to create a situation in which the participant is the final tie-breaking vote between 6 other parole decision-makers. Three decision-makers vote to release the inmate and three vote not to release the inmate. This provides the participant with the final determining vote, and it is clear that there is enough evidence to persuade three parole board members to vote each way.

The reason this decision paradigm was chosen, as opposed to having participants vote by themselves, was because it provides participants with a reason to doubt their own decisions when they later find out that the inmate they released on parole committed a murder. When participants receive the news of the murder they will likely think back and question their decision and why they did not vote with the other parole board members. They will also question their ability to make accurate decisions potentially thinking, “What did I miss that those three judges did not miss?” This will provide an opportunity for counterfactual thinking and potentially emotion experience. However, in the pilot study they did not find out the outcomes of their decisions.

In the 7th member paradigm, the participants read the following instructions: “John Post is eligible to be released on parole. You are a member of a parole board in charge of making the release decision for John Post that is best for the safety of the public, the rights of the individual, and the prison. The parole board that you are serving on consists of seven

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15 This paradigm is based on the “9th justice paradigm” developed by Finkel and Duff (1991) in which participants act as the deciding justice to indicate their support for various legal actions.
members. The other six members have already made their release decision. Three of them elected to release John Post and three of them elected not to release John Post. You have the deciding vote whether to release John Post or not.” Then the participant was given the initial release decision instructions and criteria. These criteria described a low risk inmate. After reading the decision instructions and criteria, participants rated their parole release decisions on a scale measuring the extent to which they would grant or deny parole. This scale consisted of a 6-point Likert type scale from 1 (definitely do not grant parole) to 6 (definitely grant parole). Choosing numbers 1-3 were coded as parole denial and numbers 4-6 were coded as parole release. This initial decision included the same inmate information criteria as the initial decision in the main study (Appendix C).

The goal was for at least 97% of participants to choose ratings of 4-6. If this percentage was met with the first sample, then no decision criteria would be changed. If 97% of participants (or more) did not choose to release the inmate, then the release criteria would be examined and potentially changed if necessary. If changes were necessary, they would be made to portray the inmate as more worthy of release, lessening the perceptions of the inmate’s dangerousness and increasing the likelihood of parole release.

Following the initial release decision, participants rated parole release for three subsequent decisions, representing low, moderate, and high risk inmates. Each decision was rated on the same 6-point scale. If participants were able to differentiate each case by risk level, then the average for the initial decision (and low-risk inmate) should be between 4.33 and 6. The average for the moderate risk inmate should be between 2.66 and 4.32, and the average for the high risk inmate should be between 1 and 2.63. Risk was defined by various release criteria adapted from Matejkowski (2011) and criteria listed on Texas’s parole
The criteria included factors related to perceived risk and dangerousness along with factors typically reported in offender profiles (age, race, sex, etc.). Race, age, and sex were held constant using White/Caucasian male names of inmates 45 years old. If participants were unable to differentiate among the three cases, then the criteria would be assessed and changed if necessary to best elicit these response averages.

**Results.** Participants (N=197)\(^{16}\) completed the pilot study. In the initial release decisions, 188 participants chose to release the inmate onto parole, which is 95.4% of the total number of participants. This was considered adequate enough to continue with final data collection; thus, no re-test was necessary.\(^{17}\)

Another purpose of the pilot study was to examine whether respondents were able to differentiate between low, moderate, and high risk individuals based on their release decisions. It was predicted that if respondents were able to differentiate between the risk levels, then the initial and low risk parole decision release rating means would be between 4.33 and 6, the moderate risk mean release rating would be between 2.66 and 4.32, and the high risk mean release rating would be between 1 and 2.65. Results revealed that mean release ratings for all release decisions were in the appropriate ranges. The mean release rating for the initial release decision was 5.08 (SD = .93). The mean release rating for the low risk inmate was 4.51 (SD = 1.18). The mean release rating for the moderate risk inmate was 3.35 (SD = 1.36). The mean release rating for the high risk inmate was 1.96 (SD = 1.41).

Although these ranges were set by simply dividing the overall range of the scale (Range = 5) by the levels of risk (3), a repeated measures general linear model was used to

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\(^{16}\) Three participants’ data were missing.

\(^{17}\) This decision was based on budget constraints and time constraints. Also, a 1.6% difference was considered negligible.
assess the differences between the three means. This analysis was used to ensure that the mean scores differed significantly from each other rather than simply meeting the range requirements (e.g., it is possible for the range criteria to be met with a moderate risk mean of 4.32 and a low risk mean of 4.33).

The overall model was significant, $F(3,193) = 344.92, p < .05$. A Greenhouse-Geisser correction was used because sphericity could not be assumed, Mauchly’s $W = .537, p < .05$. Mean differences for each group were assessed using a least significance difference test (LSD). This analysis revealed significant differences between all groups at the $p < .05$ level. This included a significant difference between the initial and low risk mean release ratings. Although this was not predicted, the two release criteria were assessed in order to try and explain this difference. When examining the release criteria, the significant difference was attributed to the difference in language used in the crime descriptions for the inmates in the initial decision and low risk decisions. The crime description for the low risk inmate included an assault with a deadly weapon, but the crime description for the initial inmate included an aggravated assault. Therefore, the words “deadly weapon” were considered to be the likely primary cause for the significant difference between the two means. In the primary study, the low risk inmate’s crime description was re-written to match the crime description of the initial inmate’s release decision, using “aggravated assault.”

**Participants for the Main Study**

**Participant compensation.** Participants ($N = 962)^{18}$ were recruited using Amazon’s Mechanical Turk online recruitment tool. All participants were required to meet the criteria

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^{18} Although there were 962 participants, not all completed the demographics measures. Therefore, the numbers and percentages are valid percentages and not percentages representing 962 participants.
of being 18 years of age or older and a current U.S. citizen. Participants who completed the study received $2.65. This compensation was considered adequate because an initial batch of participants were assessed in how much time it took to complete the survey, which revealed a range from 22 minutes ($7.22/hour) to 41 minutes ($3.87/hour).

**Sample size and power analysis.** An a priori power analysis was computed for the model with the most number of measured variables. The formula “$SS=k(10)$” was used, where $k$ refers to the number of measured variables, because 10 is considered the minimum number of subjects per measured variable for a structural equation model analysis to run properly. The most number of measured variables was 22; thus the required sample size for a single group (parole or public) is 220. Often the formula “$SS=k(20)$” is preferred; thus, the required sample size for a group would be 440. All group sample sizes met this criteria.

**Participant characteristics.** Participants included 52.6% ($N = 506$) in the public condition and 47.4% ($N = 456$) in the parole condition. Participants also included 11.1% ($N = 101$; parole only) in the no crime condition, 30.7% ($N = 279$) in the two years condition, 30.3% ($N = 275$) in the two months condition, and 27.9% ($N = 254$) in the two days condition.

Participants were 50.3% ($N = 456$) female, 77.6% ($N = 703$) White/Caucasian (8.4% Black/African-American; 7.1% Asian/Pacific Islander; and 4.7% Hispanic-Latino), 59.4% ($N = 538$) college educated (27.7% high school; and 12.3% graduate school); 23.7% ($N = 215$); Protestant/Christian (18.8% Catholic; 18.7% Atheist; 16.8% Agnostic; and 12.7% believe in God but have no particular affiliation), 45.6% ($N = 413$) Democrat (34% Independent and 18% Republican), 50% ($N = 453$) liberal (29% Moderate and 20.9% Conservative), and an average of 35.5 years of age ($Mdn = 33$).
Manipulation check failures. Two questions addressed participants’ arrest history and law enforcement history. Surprisingly, 18% ($N = 163$) individuals had been arrested at least once prior to completing this survey.\footnote{This does not incorporate offense severity or conviction.} Also, 3.9% ($N = 35$) had worked in law enforcement before.

Two questions also addressed participants’ awareness of the manipulations (i.e., a manipulation check). Failing either of the manipulation check questions was categorized as a manipulation check failure. Only 8.32% ($N = 80$) of participants failed the manipulation checks. All participants were retained for the final analyses.

Design of Main Study

Participants were randomly assigned to a condition, “public” or “parole”. Then within each condition, participants were randomly assigned to a temporal contiguity condition, 2 days between the parolee’s crime and release, 2 months, 2 years, or no offense (control condition; for “parole” condition only).

Procedures

Participants first read an information sheet, explaining the purpose of the study, and then chose whether or not they agreed to participate. After they agreed, participants were randomly assigned to either the “public” condition or the “parole” condition. Procedures varied depending on condition, as described in the next two sections.

Parole condition. If assigned to the parole condition, participants read about their role and then made a parole release decision via the $7^{th}$ member paradigm (same as in the pilot studies; see also Appendix A). If participants chose a number in the “denial” category
(1-3), then they were directed out of the decision-making aspect of the study and to the individual difference and demographic measures. If participants chose a number in the “release” category (4-6), then they were sent to a screen that said, “Based on your decision, the inmate, John Post, has been released on parole.” Participants whose chose a 4-6 then read a news story description of a crime (rape and murder of a young child) committed by the inmate that they just released on parole (Appendix E). In the description of the crime, the time between the release decision and the crime will be either two days, two months, two years, or no occurrence of a crime at all (temporal contiguity manipulation). In the condition in which no crime was committed, participants did not read about a crime and did not fill out attribution or emotion measures. Instead, they skipped to the information processing measures and subsequent decisions.

Participants who were in the temporal contiguity condition in which a crime was committed then filled out a battery of measures including, knowledge, preventability, answerability, accountability, controllability, causality, intentionality, moral wrongfulness, justification/excuse, guilt, regret and blame. Then, participants answered anticipatory emotion questions and made three subsequent parole release decisions. After these subsequent decisions, participants completed information processing measures, the positive and negative affect scale (PANAS), individual differences, anticipatory emotions, and demographics. At the end of the study, participants were debriefed and thanked; this concluded the study (see Appendix MM for a diagram of the procedures).

**Public condition.** In the “public” condition (see Appendix B), participants read a news story description of a crime committed by an inmate after being released on parole (same as parole condition). Participants were then randomly assigned to a temporal
contiguity condition, which was depicted in the title of the news story. After reading the news story, participants filled out the same battery of measures, demographics, PANAS as in the “parole” condition. Then the participants were debriefed and thanked; this concluded the study for the “public” condition (see Appendix MM for a diagram of the procedures).

Materials

7th member paradigm description. Each participant assigned to the mock parole board member were given the 7th member paradigm. All instructions were the same as described in the pilot study (see Appendix A).

Parole release decision criteria. For the parole release decisions, the participants read decision instructions and parole release criteria to use when making release decisions. The list of decision criteria was adapted from Matejkowski (2011) and criteria listed on Texas’s parole guidelines website (see Appendix C for release criteria and the inmate description). Criteria included name, sex, race, education, age at time of incarceration, current age, prison sentence, time spent in prison, reason for imprisonment, volunteer work within the prison, signs/symptoms of mental illness, social/family support, prior arrests, risk of physical harm to self, risk of physical harm to others, potential risk to the community, and risk of dangerousness.

Subsequent parole release decision criteria. Participants made three subsequent parole decisions. Three different case types were represented in the subsequent decisions (see Appendix H). The first case type was a parole eligible inmate who poses low risk (same as the first release decision with only a different name). The second case was a parole eligible inmate who poses moderate risk. The third case was a parole eligible inmate who poses high risk. Risk was defined by the dangerousness implied by the release criteria (same criteria
categories as in the initial decision).

**Initial parole decisions.** Parole decisions were made on a 6 point scale from 1 (definitely do not grant parole) to 6 (definitely grant parole; see Appendix D). For the initial mock parole release decision, scores from 1 to 3 were considered a “denial,” and scores from 4 to 6 were considered a “release.” These categories were not specified for the participant but were simply used as a screening criterion. If the participants chose “release” (i.e., a response of 4-6) then they were directed to a page that told them that the inmate had been released on parole (see Appendix E). Once participants read the page that told them about their release decision, they were taken to the news story describing the crime committed by the inmate after release (Appendix F).

**Dependent Variables**

**Blame.** Attributions of blame were measured by asking participants to rate, “[…] the extent to which you blame yourself/the parole board members for the child’s death (as a result of your decision to release the inmate on parole),” on a 5-point Likert type scale from 1 (Not at all to blame) to 5 (Completely to blame; see Appendix G).

**Subsequent parole decisions.** Subsequent parole decisions were measured on a 6 point Likert type scale from 1 (definitely do not grant parole) to 6 (definitely grant parole; see Appendix D). In the subsequent decisions, the inmates represented three different levels of risk, low, moderate, and high (see Appendix H). Release ratings for all three inmates were averaged for a parole release measure (i.e., punitiveness). Punitiveness would suggest low ratings of parole release across all three inmates.

Regarding information processing and punitiveness, participants were coded as processing information rationally if they were able to distinguish low, moderate, and high
risk levels in their ratings. This implies that their three release ratings differed with their highest being the low risk inmate and their lowest being the high risk inmate.

**Independent Variables**

**Temporal contiguity condition.** For both the “public” and “parole” conditions, the time between parole release decision and crime was varied by three temporal contiguity conditions. These included the short-time condition (two days), the moderate-time condition (two months), and the long-time condition (two years). The time presented in italics in the news article depicted the participants’ condition (see Appendix F). Also, before being directed to the news article, the participants read a page that said, “Imagine that 2 days/2 months/2 years have passed since you made the decision to release the inmate John Post on parole.” The “parole” condition included a fourth temporal contiguity condition in which there was no offense following the initial release decision (a control condition). Therefore, participants in the “parole” condition were not directed to this page if they were in the control condition.

**Knowledge.** The knowledge dimension of vicarious responsibility was measured by asking participants to rate seven items like, “[…] the extent to which the parole board /you, as a parole board member were aware of the potential consequences for releasing the inmate,” on a 5-point Likert type scale from 1 (Not aware at all) to 5 (Completely aware; see Appendix I). These items were averaged together to create a single score for knowledge, $\alpha = .74$. When testing Shaver’s (1985) and Gailey and Falk’s (2008) model, items 1, 2, 4, and 6 were used. For the proposed model, items 1, 2, 3, 5, 6, and 7 were used as indicators for knowledge. This is because the proposed model of vicarious responsibility does not incorporate seriousness as a part of the knowledge dimension but it does incorporate the
perception that seriousness should have been recognized by the parole board.

**Preventability.** The preventability dimension of vicarious responsibility was measured by asking participants to rate, “[…] the extent to which you feel that the parole board /you, as a parole board member were able to prevent the child’s death,” on a 5-point Likert type scale from 1 (Could not have prevented at all) to 5 (Could have completely prevented; see Appendix J).

**Answerability.** The answerability dimension of vicarious responsibility was measured by asking participants to rate two items like, “[…] the extent to which you believe that the parole board /you, as a parole board member should answer for child’s death,” on a 5-point Likert type scale from 1 (Should not answer at all) to 5 (Should definitely answer; see Appendix K).

**Accountability.** The accountability dimension of vicarious responsibility was measured by asking participants to rate, “[…] the extent to which you feel that the parole board is / you, as a parole board member are accountable for the child’s death,” on a 5-point Likert type scale from 1 (Not at all accountable) to 5 (Completely accountable; see Appendix L).

**Controllability.** Perceived controllability was measured by asking participants to rate, “[…] the extent to which you feel that the parole board / you, as a parole board member were in control of the parolee’s actions,” on a 5-point Likert type scale from 1 (Not in control at all) to 5 (Completely in control; see Appendix M).

**Causality.** Causality was measured using Gailey and Falk’s (2008) causality dimension questions (see Appendix N). Participants were asked to rate four questions like, “Is the parole board / Are you at fault for the child’s death as a result of releasing the inmate
on parole,” on a 5-point Likert type scale from 1 (Not at fault at all) to 5 (Completely at fault). Each question was worded according to the participant’s condition. The five items were averaged together to form a single causality score, $\alpha = .84$.

In this scale, there is an item that addresses responsibility directly. For all models that use a single item measurement of responsibility, this item will be used for that measure. This includes models for hypotheses 13 and 22.

**Intentionality.** Intentionality was measured using Gailey and Falk’s (2008) intentionality dimension questions (see Appendix O). Participants were asked to rate three questions like, “Did the parole board/you intend for the inmate to commit a crime shortly after release?,” on a 5-point Likert type scale from 1 (Did not intend at all) to 5 (Completely intended). Each question will be worded according to the participant’s condition. The items were averaged together to form a single intentionality score, $\alpha = .80$.

**Coercion.** Coercion related to the release decision was measured using Gailey and Falk’s (2008) coercion dimension questions (see Appendix P). Participants were asked to rate four questions like, “Do you think the parole board/you acted in their own will when deciding to release the inmate,” on a 5-point Likert type scale from 1 (Not at all) to 5 (Completely). Each question was worded according to the participant’s condition. The items were averaged together to form a single coercion score, $\alpha = .69$.

**Moral Wrongfulness.** Moral wrongfulness was measured using Gailey and Falk’s (2008) moral wrongfulness dimension questions (see Appendix Q). Participants were asked to rate three questions like, “Was it wrong for you/the parole board to release the parolee?” on a 5-point Likert type scale from 1 (Not wrong at all) to 5 (Completely wrong). Each question was worded according to the participant’s condition. The items were averaged
together to form a single moral wrongfulness score, $\alpha = .82$.

**Excuse.** Perceptions of excuse were measured by an item asking, “to what extent should you/the parole board members be excused for your/their decision to release the inmate on parole?” This was measured on a scale from 1 (not excused at all) to 5 (completely excused; see Appendix R).

**Justification.** Perceptions of justifications for the parole release decision were measured by using the item, “to what extent was your/the parole board’s decision to release the inmate justified?” This will be measured on a scale from 1 (not justified at all) to 5 (completely justified; see Appendix S).

**Anger.** Self-reports of anger were measured by asking participants to rate, “[…] the extent to which you feel angry toward the parole board/yourself as a parole board member for releasing the inmate on parole.” Anger will be measured on a 5-point Likert type scale from 1 (Not at all angry) to 5 (Extremely angry; see Appendix T).

**Guilt.** Self-reports of both anticipatory guilt and post-decision guilt were measured by asking participants to rate, “[…] the level of guilt you would feel if you were a parole board member and made a decision to release an inmate on parole who raped and murdered a young girl soon after release (anticipatory guilt)” and, “how guilty do you feel/think the parole board should feel for the death of the child as a result of your/their decision to release the inmate on parole (post-decision guilt),” on a 5-point Likert type scale from 1 (Not guilty at all) to 5 (Extremely guilty; see Appendix U).

**Regret.** Self-reports of both anticipated regret and post-decision regret were measured by asking participants to rate, “[…] the level of regret you would feel if you were a parole board member and made a decision to release an inmate on parole who raped and
murdered a young girl soon after release (anticipatory regret),” and “what level of regret do you feel/think the parole board should feel for the death of the child as a result of your/their decision to release the inmate on parole (post-decision regret),” on a 5-point Likert type scale from 1 (No regret at all) to 5 (Extremely high level of regret; see Appendix V).

**CEST information processing states.** Two vignettes measured information processing states. The first vignette was adapted from Kahneman and Tversky (1982), and it describes a scenario in which two individuals are invested in stock trading (see Appendix W). The scenario states that Paul and George own stocks. Paul owns stock in company A and then switches to company B. George owns stock in company B and decides not to switch to company A. In both cases, the stock in company A skyrockets. This vignette describes acts of commission (Paul) and omission (George; Epstein, Lipson, Holstein, & Huh, 1992).

Then participants are asked about the foolishness of the two individuals involved (see Appendix W). The question reads “Who do you think felt his action (or inaction) was more foolish, Paul or George? The answer choices will range from 1 (Paul was more foolish) to 9 (George was more foolish) with a midpoint of 5 (Paul and George were equally foolish). Each score was coded as rational processing if the midpoint (5) was chosen. If any other ratings was chosen, the score was coded as experiential processing. Individuals who are experiencing a rational processing state will likely see equal foolishness because both individuals in the vignette were unable to foresee what the stock was going to do. Individuals who are experiencing experiential processing will likely see Paul as more foolish than George because acts of commission are typically seen as more foolish than acts of omission (see Miller et al., 2013). The coded values for the two problems were then averaged together to form a single processing score.
This is similar for the second vignette, which describes a parking lot incident (see Appendix W; Epstein et al., 1992). In the parking lot incident, Tom is looking to find a parking spot in a parking lot. His wife wants him to park near the store she wants to shop at but instead he parks near the store that he wants to shop at. As he backs out to leave after shopping, another car behind him also backs out and hits his car. Robert also parks in the same lot but at a time when only one parking spot was left. He also backs out at the same time as another car and gets hit. The participants are asked which person is more foolish, Tom or Robert. The answer associated with rational processing is “neither” because neither person could have predicted the other car’s actions. However, under experiential processing, Tom is more foolish would be the likely answer because Tom selfishly picked his spot and that is why he was hit. This parking lot dilemma describes instances of constrained and unconstrained decisions, in which Tom’s choice was unconstrained (many possible spots to park) and Robert’s choice was constrained (only one spot for him to park). This problem was rated in the same way as the stock trading problem and processing was coded in that same way as well. The coded values for the two problems were then averaged together to form a single processing score.

**Information processing math problems.** Participants also completed three math problems that assess processing states (Guthrie, Rachlinski, & Wistrich, 2007). Each math problem is set up in a way to appear to have an easy answer, however, the easy answer is wrong. For example, one problem says, “A bat and a ball cost $1.10 in total. The bat costs $1.00 more than the ball. How much does that ball cost?” The quick easy answer is $0.10. However, the correct answer is $0.05, which takes more effortful thinking to figure out. Incorrect answers will be categorized as heuristic processing, and correct answers will be
categorized as rational processing (see Appendix X). The processing codes for the three problems will then be averaged together to form a single processing score.

**PANAS.** The PANAS was used to measure positive and negative affect (Watson, Clark, & Tellegen, 1988). This scale was adapted from its original version to fit the purposes of this study. It is used to measure affective states of individuals and contains 10 emotions, in which respondents report the extent to which they are currently feeling that emotion from 1 (very slightly or not at all) to 5 (extremely). Each dimension (positive/negative) corresponds to 10 of the emotion items (see Appendix Y). Positive and negative affect were scored by averaging the items for each dimension.

**Attributional complexity.** Attributional complexity measured the attitudes individuals hold when determining the responsibility of others and the environment regarding actions and behaviors, including 28 items such as, “I don’t usually bother to analyze and explain people’s behavior” (Fletcher et al., 1986; see Appendix Z). This scale was measured using a Likert type scale from 1 (strongly disagree) to 5 (strongly agree). These items were averaged to create a single score for attributional complexity, $\alpha = .92$. Items were reverse-scored as needed.

**Need for affect.** Need for affect measured the extent to which individuals rely on their emotions when thinking and making decisions related to attitudes and behavior (Maio & Esses, 2001). The scale includes two dimensions, approach and avoidance, measured by 26 items (13 items for each dimension) such as, “I think that it is important to explore my feelings (approach),” and “I wish I could feel less emotion (avoidance).” The approach and avoidance have shown adequate reliabilities of $\alpha = .83$ and $\alpha = .87$ in prior literature, respectively (see Appendix AA; Maio & Esses, 2001). These items were averaged to create a
single score for both approach, $\alpha = .88$, and avoidance, $\alpha = .90$. Items were reverse-scored as needed.

**Counterfactual thinking.** Counterfactual thinking tracks “if only” thoughts that occur after an event outcome (Roese, 1994). Participants listed “if only” thoughts related to releasing the inmate in the initial decision according to Roese’s (1994) counterfactual instructional item (see Appendix BB). The number of counterfactual statements were recorded (Roese, 1994). Each separate counterfactual thought was counted as a single statement, having a separate and complete subject. For instance, “If only I had looked both ways before crossing the street or not stepped in that gum in the middle of the street, then I would not have gotten hit by the car” would count as two counterfactual statements because looking both ways and stepping in gum are two separate and complete subjects (i.e., two ways of “undoing” getting hit by the car). Only statements that identified or addressed antecedents applicable to the current scenario were coded as a counterfactual statement. It is possible that coding these statements was subjective in cases in which punctuation was not used and determining whether two statements were separate or the same was difficult to assess. However, these cases were rare and unlikely to impact the overall reliability of the measure, though it was still possible.

**Control Variables**

The following variables’ relationships with the dependent variables were treated as control variables in the final moderated mediation model of blame for the “public” and “parole” condition and in the final moderated mediation model of subsequent parole release decisions for the “parole” condition. These variables are control variables because they are not expected to moderate or mediate any of the relationships in the proposed model.
However, literature suggests that they might influence attitude and legal decision-making tasks. Therefore, their explained variance was accounted for. Control variables that do not significantly predict the outcome variables in each of the models will be removed for final analyses to improve overall model fit and to increase parsimony.

**CEST information processing traits.** The rational-experiential inventory (REI) scale was used to measure individuals' reasoning and rational thinking when forming opinions and attitudes. It is made up of two sub-scales, faith in intuition and need for cognition. Each scale includes five items such as, “My initial impressions of people are almost always right,” (faith in intuition), and “I prefer complex to simple problems,” (need for cognition), and has reported reliabilities of $\alpha = .73$ and $\alpha = .72$ in previous literature, respectively (Epstein et al., 1996; see Appendix CC). Items for each scale were averaged together to create a single score for each scale. Items were reverse-scored as needed.

**Legal authoritarianism.** Legal authoritarianism was measured by ratings of 23 items such as, “Too many obviously guilty persons escape punishment because of legal technicalities,” and has a reported reliability of $\alpha = .71$ and $\alpha = .83$ (Kravitz et al., 1993; see Appendix DD). This scale was rated on a Likert type scale from 1 (strongly disagree) to 5 (strongly agree). Although this scale has 3 subscales (authoritarianism, anti-authoritarianism, and equalitarianism), all 23 items were averaged together to create a single rating for legal authoritarianism because evidence for the predictive validity of the three subscales is scarce and mixed, $\alpha = .83$. However, a single construct of legal authoritarianism is more widely used and more predictive in the literature (see Kravitz et al., 1993 for the full discussion). Items were reverse-scored as needed.

**Locus of control.** Locus of control was measured to test for perceptions of control
over one’s life experiences and the extent to which an individual attributes experiences and behaviors to internal or external factors. It included 10 items such as, “Many times I feel as though I have little influence over what happens to me,” (Ferguson, 1993; adapted from Rotter, 1966; see Appendix EE). This measure was rated on a Likert type scale from 1 (strongly disagree) to 5 (strongly agree). All 10 items were averaged into a single score representing locus of control, $\alpha = .86$. Items were reverse-scored as needed.

**Just world beliefs.** This scale measured beliefs that people deserve what happens to them. It included 13 items like, “I believe that by and large, people get what they deserve,” (Dalbert, 1999; Rubin & Peplau, 1975; see Appendix FF). This measure was rated on a Likert type scale from 1 (strongly disagree) to 5 (strongly agree). Items were averaged together to create a single score for both general, $\alpha = .90$, and personal just world beliefs, $\alpha = .87$. Items were reverse-scored as needed.

**Attributions of crime.** Causal attributions of crime addressed two types of attributions, including personal attributions, indicating that the person is to blame, and situational/external attributions, indicating that the person's behavior is a result of situational circumstances. It included 20 items (10 items for personal and 10 items for situational attributions) such as, “Crime is mostly the product of a person’s circumstances and social contexts,” (adapted from Carroll, Perkowitz, Lurigio, & Weaver, 1987; Gudjonsson, 1984; Templeton & Hartnagel, 2012; see Appendix GG). This measure was rated on a Likert type scale from 1 (strongly disagree) to 5 (strongly agree). Each set of 10 items were averaged to create two single scores, one for personal, $\alpha = .89$, and one for situational attributions, $\alpha = .89$. Items were reverse-scored as needed.

**Demographics.** Participants were asked demographic questions regarding gender,
race, religion, age, and political affiliation/orientation (see Appendix HH).

**Social desirability.** The social desirability scale measured the need to appear perfect or desirable, and it includes 40 items like, “I never regret my decisions,” (Paulhus, 1991; see Appendix II). Each item was answered using a Likert type scale from 1 (strongly disagree) to 7 (strongly agree). The scale includes two subscales: self-deception enhancement and impression management. After reverse scoring appropriate items, each scale item that is rated as a 6 or a 7 will be worth 1 point. The maximum for each scale is 20 points. A total of 20 or higher is considered socially desirable responding. This scale was included to identify social desirable responding, as it relates to attributions of blame and decision-making.

**Self-reported emotional influence.** Self-reported emotion was measured (see Appendix JJ). A statement saying “Please indicate the extent to which emotion played a role in your parole release decisions,” will be given at the end of the study to account for their conscious awareness of emotional influence during decision-making. This scale was measured using a Likert type scale from 1 (Not at all) to 5 (Completely) and was completed by both mock parole board members and the public. The purpose of this question was to simply measure whether individuals were aware of their emotions when making judgments and decisions. This analysis was conducted post-hoc to see if individuals who processed information experientially and emotionally were aware of it.

**Exclusion Variables**

**Manipulation Check.** At the end of the study, participants were asked two manipulation check question including, “How much time passed between your/the parole board’s release decision and the crime,” and, “[…] mark the answer that most accurately reflects what you did in this study.” The answer choices for the first question are 2 days, 2
months, or 2 years, and the answer choices for the second question are read about a parole decision or made a parole decision (see Appendix KK). Participants who report an incorrect answer for either question will potentially be screened out of the sample if consistent and predictable significant differences exist between those who pass the manipulation check and those who fail.

**Criminal history.** Participants were asked if they have ever been arrested or if they have worked in law enforcement. Answers were in a yes/no choice format on the demographics section (see Appendix HH). If participants answered yes to either of these questions, they will be potentially screened out of the sample if consistent and predictable significant differences exist between those who have been arrested and those who have not or between those who have worked in law enforcement and those who have not.

**Probative Variables**

**Open-ended questions.** There were a series of open ended questions at the end of the study that were asked in order to assess reasons for decisions. These included questions about why individuals made their decisions, their beliefs in offender intentionality, society’s response to criminals, and what factors led to the participant’s decision (see Appendix LL). Though not directly analyzed or hypothesized about, these questions were retained for use in case any data discrepancies or unexplainable relationships between variables arose. These questions also served as qualitative data to help direct future research.

**Closed-ended questions.** There were also two closed-ended questions, each rated on a 5-point Likert scale from 1 (strongly disagree) to 5 (strongly agree). These included questions about whether criminals can be rehabilitated and whether parole boards should be socially sanctioned (see Appendix LL). These questions were included as control variables.
Chapter 10: Results

In this chapter, data screening, model building, and hypothesis testing analyses are reported. All analyses were completed using either IBM’s SPSS v.22 or R® v.3.1.2. R was only used for structural equation modeling. All regression and analysis of variance tests used SPSS v.22.

Manipulation Checks and Exclusion Variables

Prior to final analyses, social desirability, manipulation check failures, arrest history, and law enforcement experience were assessed regarding their relationships with parole decisions to test whether they predicted parole decisions consistently and in a predictable manner. Social desirability was not significantly related to perceptions of blame or parole decision-making. Failing the manipulation check was positively correlated with (only) choosing to release the high risk inmate on parole, r = .239, p < .001. This was considered weak evidence to suggest that manipulation check failures influenced parole release decisions in a consistent and predictable manner.

Arrest history was negatively correlated with choosing to release the initial inmate, r = -.094, p < .05, and negatively correlated with choosing to release the moderate risk inmate, r = -.098, p < .05. This was considered weak evidence that arrest history influenced parole release decisions in a consistent and predictable manner.

A history of working in law enforcement was positively correlated with choosing to release the initial inmate, r = .124, p < .01, but negatively correlated with choosing to release the high risk inmate, r = -.142, p < .01. This was considered weak evidence that a history of working in law enforcement influenced parole release decisions in a consistent and predictable manner.
Lastly, and most interestingly, history of arrest was positively correlated with a history of working in law enforcement, \( r(906) = .085, p < .05 \). Therefore, no participants were excluded from final analyses based on their criminal histories, law enforcement histories, or whether they failed the manipulation check.

**Normality, Heteroscedasticity, and Outlier Analysis**

Prior to final analyses, scale reliability and univariate normality were checked to assess problematic measures (see Table 1). All scale reliability were adequate ranging from \( \alpha = .69 \) to \( \alpha = .92 \), and this included both measures used as a single average score and scales that were treated as latent variables in structural equation modeling. Similarly, univariate normality was assessed by examining skewness and kurtosis statistics. Problematic skew and kurtosis scores were considered to be scores above 1.0 or below -1.0.

The intentionality scale showed extreme positive skewness of 3.23; however, this was expected because Shaver’s (1985) and Gailey and Faulk’s (2008) construct of intentionality was assumed to only be applicable for non-vicarious responsibility and not for vicarious responsibility. Parole boards were not predicted to be perceived as intending harm to a victim by an inmate released on parole. Thus, it was predicted that intentionality would be a poor indicator of responsibility in each of the hypothesized models due to its non-normal distribution. However, the floor effects of the measure suggest the need for a transformation. Thus, an inverse transformation was used for severe positive skew (Mertler & Vernnatta, 2013). After using a transformation for intentionality, the skewness was reduced to -2.6. This was still inadequate.
Table 1.

*Normality Analyses for All Predictors Using Single Scores and Mean Scores for Latent Variables and Measured Variables*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Reliability (α)</th>
<th>Skewness</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cause</td>
<td>.84</td>
<td>-.146</td>
<td>-.569</td>
</tr>
<tr>
<td>Knowledge</td>
<td>.74</td>
<td>-.027</td>
<td>.038</td>
</tr>
<tr>
<td>Intent-transformed</td>
<td>.80</td>
<td>-2.661</td>
<td>6.406</td>
</tr>
<tr>
<td>Coercion</td>
<td>.69</td>
<td>.532</td>
<td>-.329</td>
</tr>
<tr>
<td>Moral Wrongfulness</td>
<td>.82</td>
<td>-.070</td>
<td>-.682</td>
</tr>
<tr>
<td>Answerability</td>
<td>.79</td>
<td>.306</td>
<td>-.834</td>
</tr>
<tr>
<td>Preventability</td>
<td>N/A</td>
<td>-.082</td>
<td>-1.147</td>
</tr>
<tr>
<td>Accountability</td>
<td>N/A</td>
<td>.273</td>
<td>-.919</td>
</tr>
<tr>
<td>Control-transformed</td>
<td>N/A</td>
<td>.735</td>
<td>-.700</td>
</tr>
<tr>
<td>Justification</td>
<td>N/A</td>
<td>-.104</td>
<td>-.877</td>
</tr>
<tr>
<td>Excuses</td>
<td>N/A</td>
<td>-.222</td>
<td>-1.035</td>
</tr>
<tr>
<td>Blame</td>
<td>N/A</td>
<td>.079</td>
<td>-.951</td>
</tr>
<tr>
<td>Anger</td>
<td>N/A</td>
<td>-.399</td>
<td>-1.130</td>
</tr>
<tr>
<td>Guilt</td>
<td>N/A</td>
<td>-.574</td>
<td>-.925</td>
</tr>
<tr>
<td>Regret-transformed</td>
<td>N/A</td>
<td>-.416</td>
<td>-1.598</td>
</tr>
<tr>
<td>Anticipated Guilt</td>
<td>N/A</td>
<td>-.966</td>
<td>-.313</td>
</tr>
<tr>
<td>Anticipated Regret-transformed</td>
<td>N/A</td>
<td>-.540</td>
<td>-1.482</td>
</tr>
<tr>
<td>Counterfactual Thinking</td>
<td>N/A</td>
<td>.800</td>
<td>.710</td>
</tr>
<tr>
<td>PANAS Positive</td>
<td>.81</td>
<td>.126</td>
<td>-.766</td>
</tr>
<tr>
<td>PANAS Negative</td>
<td>.87</td>
<td>-.731</td>
<td>-.862</td>
</tr>
<tr>
<td>Personal Attributions</td>
<td>.89</td>
<td>-.340</td>
<td>.050</td>
</tr>
<tr>
<td>Situational Attributions</td>
<td>.79</td>
<td>-.353</td>
<td>1.208</td>
</tr>
<tr>
<td>Need for Cognition</td>
<td>.88</td>
<td>-.700</td>
<td>.197</td>
</tr>
<tr>
<td>Faith in Intuition</td>
<td>.91</td>
<td>-.751</td>
<td>.333</td>
</tr>
<tr>
<td>Social Desirability</td>
<td>.88</td>
<td>.582</td>
<td>-.255</td>
</tr>
<tr>
<td>General Belief in a Just World</td>
<td>.90</td>
<td>-.840</td>
<td>.801</td>
</tr>
<tr>
<td>Personal Belief in a Just World</td>
<td>.87</td>
<td>-.205</td>
<td>-.205</td>
</tr>
<tr>
<td>External Locus of Control</td>
<td>.86</td>
<td>-.273</td>
<td>-.046</td>
</tr>
<tr>
<td>Need for Affect Approach</td>
<td>.88</td>
<td>-.391</td>
<td>.208</td>
</tr>
<tr>
<td>Need for Affect Avoid</td>
<td>.90</td>
<td>.320</td>
<td>-.322</td>
</tr>
<tr>
<td>Attributional Complexity</td>
<td>.92</td>
<td>-.287</td>
<td>-.189</td>
</tr>
<tr>
<td>Legal Authoritarianism</td>
<td>.83</td>
<td>-.088</td>
<td>.472</td>
</tr>
</tbody>
</table>

Next univariate outliers were assessed for intentionality. When examining the boxplots for univariate outliers, all values less than 1 were considered outliers. If all outliers were removed, all intent values would be equal to 1 and there would be no variance. Outliers identified in box plot analysis were not removed. Using, saved standardized residuals,
Cook’s $D$ values, and Leverage values, several cases were identified as outliers and removed; however, this did not affect the skew and kurtosis of the intent variable or the results of the condition analysis on intent so they were not removed for final analyses. Thus, the transformation of intentionality was used despite obvious violations, and it is predicted that re-specified models will not include intent as a predictor of vicarious responsibility.

The negative PANAS scale showed severe positive skew. Thus, a square root transformation was used (Mertler & Vernnatta, 2013), which reduced its skew and kurtosis to values that met the criteria for normality. Using stem and leaf plots and saved standardized residuals from group and condition analyses, no univariate outliers were identified after the transformation (Mertler & Vernnatta, 2013).

Single item measures including control, regret, and anticipated regret also showed moderate skew. Control was positively skewed and transformed using a square root transformation (Mertler & Vernnatta, 2013). Regret and anticipatory regret showed negative skew and were transformed using an inverse transformation (Mertler & Vernnatta, 2013). Prior to the transformation, each variable was reverse coded so that the transformed variable would be easier to interpret.

Univariate distributions for each variable were also examined for bimodality; however, there was no evidence that any distributions were bimodal (Mertler & Vernnatta, 2013). All normality assessments included both public and parole board members together. When separating public and parole board members’ distributions for each of the variables, the normality assessments did not differ substantially compared to when the two groups were combined; thus all normality statistics reported in the table refer to both groups combined.

Multivariate outliers and heteroscedasticity were assessed by visual inspection of
standardized residual scatterplots, Q-Q plots, P-P plots, standardized residuals, studentized residuals, Cook’s Distance values \((4/n)\), and Leverage values \(2^*(k+1)/n\). Five cases were identified as outliers because they violated three or more of the criteria. Because the total N for the analysis included 778 observations, it was expected that 8 observations would be outliers \((1.0\%)\) permitting their inclusion. After re-running an analysis of variance including group differences on various predictors and outcome variables, removing the outliers did not seem to impact the model or the data. To retain power, all cases were used in final analyses.

**Initial Analyses**

To assess whether the final data were comparable to the pilot data, the percentage of those who released the initial inmate compared to those who chose not to release the initial inmate and the release decisions for the low, moderate and high risk inmate were analyzed. Ninety-eight percent\(^{20}\) of participants chose to release the initial inmate, who was considered equivalent to the low risk inmate. Because the initial cutoff was arbitrarily set at 97% and the pilot data resulted in 95% release, 98% release meets the criteria and confirms the expectations based on pilot data.

In pilot testing, each release decision was tested to determine whether the release decisions aligned with the perceived risk. Each level of risk corresponded to the predicted mean release response, and each mean differed significantly from the other risk levels. This was also assessed for the initial decision, which was supposed to be equivalent to the low risk inmate; however, the mean release responses for the initial decision and the low risk decision differed significantly in the pilot study. After making a change to the risk criteria, it was

\(^{20}\)Percentage based on those who participated in that decision.
predicted that there would no longer be a significant difference between the mean release decisions for the initial inmate and the low risk inmate. To test this, mean release decisions for the initial decision and the low, medium, and high risk inmates, were compared in the condition in which the initially released inmate did not commit a crime after release.  

Overall, the mean release ratings for each decision aligned with the appropriate ranges of being between $M = 4.33$ and $M = 6$ for the low risk inmate, between $M = 2.66$ and $M = 4.32$ for the moderate risk inmate, and between $M = 1$ and $M = 2.65$ for the high risk inmate. The mean release rating for the initial release decision was $M = 5.44$ ($SD = .66$). The mean release rating for the low risk inmate was $M = 5.34$ ($SD = .87$). The mean release rating for the moderate risk inmate was $M = 3.30$ ($SD = 1.23$). The mean release rating for the high risk inmate was $M = 1.39$ ($SD = 1.01$). A repeated measures general linear model was used to assess the differences between the three means. The overall model was significant, $F(3,209.4) = 474.44$, $p < .001$ ($N=100$). A Greenhouse-Geisser correction was used because sphericity could not be assumed, Mauchly’s $W = .307$, $p < .05$. Mean differences for each group were assessed using a least significance difference test (LSD). This analysis revealed significant differences between all groups, except between the low-risk and initial inmates, at the $p < .05$ level. These results suggest that the correction to the wording in the low risk inmate release criteria after analyzing the pilot data resulted in a non-significant difference between the initial release ratings and the low risk release ratings. This supports equality in perceived risk for these two release decisions, which establishes the ability to equate low risk across decisions as a way to measure both information processing (using dependent variable

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21 This Prevented experimental effects which would confound subsequent release ratings.
Comparing Public and Mock Parole Board Members’ Perceptions

To test hypothesis 1, a multivariate analysis of variance was used to assess differences between public and parole perceptions of causality, knowledge, intentionality, moral wrongfulness, controllability, preventability, accountability, anger, guilt, responsibility and blame. This tested whether there were differences in the public’s attributions compared to mock parole board members’ self-attributions (Hypothesis 1).

Using a multivariate analysis of covariance, controlling for the effects of temporal contiguity, there were significant differences between the parole board members and public perceptions for each dependent variable with the exception of intentionality, $p = .857$, perceived anger, $p = .651$, and regret, $p = .216$ (see Table 2 for mean differences). These results suggest that for the most part, the public views parole boards more responsible and blameworthy for the actions of parolees than do members of the parole boards themselves (Hypothesis 1 supported). Further, the public indicated that they would experience a greater emotional response to a parolee’s crime if they were, themselves, parole board members, compared to the emotional response actually reported by the parole board members. This might, in part, explain why the public also thought that the parole board should experience a more substantial emotional response as a result of a parolee’s crime compared to what parole board members actually reported experiencing.

Structural Equation Modeling using Structural Regression

To test hypotheses involving structural equation modeling, all analyses were carried out using R® 3.1.2 statistical software. Within R, the following packages were used: lavaan 0.5-20, mice 2.22, MVN 3.8, MissMech 1.0.1, psych 1.5.1, semTools 0.4-6, and simsem 0.5-
11. All structural equation models were recursive structural regression models using both measured and latent variables. For every model, unit loading identification was used, fixing the direct effect of an indicator for a latent variable to 1. This was used for convenience of interpretation.

There were three steps for analyzing structural equation models of blame and decision-making. First, the proposed measurement model was analyzed using confirmatory factor analysis in order to assess fit of latent variable indicators.

Table 2.

Mean Differences between Public and Parole Board Members’ Perceptions of Responsibility, Blame, and Emotion

<table>
<thead>
<tr>
<th>Outcome Variable</th>
<th>F (overall)</th>
<th>Public Mean</th>
<th>Parole Mean</th>
<th>SE</th>
<th>Mdiff</th>
<th>95% CI</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Causality</td>
<td>12.50***</td>
<td>3.07a</td>
<td>2.67b</td>
<td>.07</td>
<td>(.27, .54)</td>
<td>785</td>
<td></td>
</tr>
<tr>
<td>Knowledge</td>
<td>22.59***</td>
<td>3.41a</td>
<td>3.00b</td>
<td>.05</td>
<td>(.31, .51)</td>
<td>785</td>
<td></td>
</tr>
<tr>
<td>Intentionality</td>
<td>.80</td>
<td>1.22a</td>
<td>1.25a</td>
<td>.04</td>
<td>(-.12, .05)</td>
<td>785</td>
<td></td>
</tr>
<tr>
<td>Coercion</td>
<td>11.16***</td>
<td>2.14a</td>
<td>1.83b</td>
<td>.05</td>
<td>(.20, .41)</td>
<td>785</td>
<td></td>
</tr>
<tr>
<td>Moral Wrongfulness</td>
<td>143.37***</td>
<td>2.74a</td>
<td>4.04b</td>
<td>.06</td>
<td>(-1.42, -1.17)</td>
<td>785</td>
<td></td>
</tr>
<tr>
<td>Answerability</td>
<td>24.59***</td>
<td>2.78a</td>
<td>2.11b</td>
<td>.08</td>
<td>(.51, .82)</td>
<td>785</td>
<td></td>
</tr>
<tr>
<td>Accountability</td>
<td>7.25***</td>
<td>2.67a</td>
<td>2.31b</td>
<td>.08</td>
<td>(.19, .52)</td>
<td>785</td>
<td></td>
</tr>
<tr>
<td>Control</td>
<td>10.20***</td>
<td>2.14a</td>
<td>1.69b</td>
<td>.08</td>
<td>(.29, .61)</td>
<td>785</td>
<td></td>
</tr>
<tr>
<td>Preventability</td>
<td>13.54***</td>
<td>3.29a</td>
<td>2.70b</td>
<td>.09</td>
<td>(.40, .77)</td>
<td>785</td>
<td></td>
</tr>
<tr>
<td>Justification</td>
<td>65.84***</td>
<td>2.70a</td>
<td>3.83b</td>
<td>.08</td>
<td>(-1.28, -0.97)</td>
<td>785</td>
<td></td>
</tr>
<tr>
<td>Excuse</td>
<td>44.09***</td>
<td>2.89a</td>
<td>3.89b</td>
<td>.09</td>
<td>(-1.16, -0.82)</td>
<td>785</td>
<td></td>
</tr>
<tr>
<td>Responsibility</td>
<td>5.78**</td>
<td>2.95a</td>
<td>2.62b</td>
<td>.09</td>
<td>(.16, .50)</td>
<td>785</td>
<td></td>
</tr>
<tr>
<td>Blame</td>
<td>3.25*</td>
<td>2.81a</td>
<td>2.64a</td>
<td>.09</td>
<td>(-.01, .33)</td>
<td>785</td>
<td></td>
</tr>
<tr>
<td>Anger</td>
<td>4.28**</td>
<td>3.33a</td>
<td>3.37a</td>
<td>.10</td>
<td>(-.25, .15)</td>
<td>785</td>
<td></td>
</tr>
<tr>
<td>Guilt</td>
<td>4.96**</td>
<td>3.65a</td>
<td>3.36b</td>
<td>.10</td>
<td>(.09, .48)</td>
<td>785</td>
<td></td>
</tr>
<tr>
<td>Regret</td>
<td>3.90*</td>
<td>4.28a</td>
<td>4.10b</td>
<td>.08</td>
<td>(.02, .33)</td>
<td>785</td>
<td></td>
</tr>
<tr>
<td>Anticipatory Guilt</td>
<td>41.26***</td>
<td>4.32a</td>
<td>3.35b</td>
<td>.09</td>
<td>(.79, 1.14)</td>
<td>785</td>
<td></td>
</tr>
<tr>
<td>Anticipatory Regret</td>
<td>25.54***</td>
<td>4.52a</td>
<td>3.89b</td>
<td>.07</td>
<td>(.48, .78)</td>
<td>785</td>
<td></td>
</tr>
</tbody>
</table>

Note: Means that share the same superscript are not statistically significant at the p < .05 level. F values pertain to overall models including temporal contiguity. For overall models (F) *p < .05; **p < .01; ***p < .001; † p < .10. Also, this table shows the means on non-transformed variables intent, control, regret, and anticipated regret even though the transformations were used in analyses.

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22 Some were re-specified as only path models.
Second, all moderated paths were analyzed using structural equation modeling techniques in order to determine fit of moderated paths compared to fit of non-moderated paths. The purpose of this was to detect problematic paths prior to testing final models. By testing measurement models and moderated paths independent of the full model, it is easier to identify problematic aspects of a model before including them into a final more complex model. This describes a theoretical model building approach to structural equation modeling rather than creating a model and trying to identify problematic paths and measurement models after fitting the final more complex model to the data.

Third, models were tested and re-specified according to theory if the model did not adequately fit the data or if specific path or indicator fit was poor. If all theoretical re-specification possibilities were analyzed, model fit was reported. Re-specification often includes several attempts in order to identify the best fitting model to the data under the assumptions and expectations of theory. For each structural equation model, re-specification was based solely on theoretical understanding and theory-based predictions. Each model was not re-specified if it compromised the integrity of the model’s ability to test theory. Modification indices were never analyzed for the purpose of using a strict hypothesis testing method of model building. Parsimony was used as a guiding principle during re-specification (Kline, 2011).

**Measurement Models and Interaction Analyses**

The purpose of the following analyses is to examine the measurement model for the proposed theoretical model of vicarious responsibility. Prior to building models of blame and decision-making, the proposed model of vicarious responsibility was assessed using confirmatory factor analysis (CFA) to test whether the indicators of vicarious responsibility
were adequate in modeling the construct. Because the first purpose of this research was to develop a comprehensive model of vicarious responsibility, it was important to test the acceptability of the proposed construct dimensions.

Interaction paths were also tested prior to analyzing the final model to test whether certain model paths were moderated by variables according to the hypotheses. Moderated paths were analyzed prior to testing the final model in order to identify areas where the model was discrepant with the data before making the same decision with a full model. This exemplifies more of a model building approach rather than analyzing a full model first and attempting to identify point of reduction. This approach is guided by general rules of parsimony.

Data were screened prior to all analyses and results suggested no evidence for multicollinearity at $R^2 \geq 0.90$. Also, the covariance matrix was not ill-scaled. The data were not multivariate normal and there were missing data (no evidence to suggest that it was not missing completely at random); therefore, full information maximum likelihood and robust standard errors were used. In sum, the data met the general criteria, permitting the use of structural equation modeling for analysis (Kline, 2011).

The measurement model for the latent variable of vicarious responsibility was analyzed by using multiple groups analysis to reflect potential differences between individuals in the parole and public conditions. Overall fit for the latent variable of vicarious responsibility with the proposed indicators was $\chi^2(70) = 564.67$, $p < .001$, CFI = 0.82, RMSEA = .13 (90% CI = [.12, .14]), SRMR = .07. This suggests poor fit for the vicarious responsibility measurement model; thus, re-specification was needed.

To re-specify the model, each dimension of responsibility was reduced to a single
indicator that had the strongest direct effect (loading) on the latent variable. The knowledge dimension was reduced to foreseeability, answerability was reduced to the extent parole boards *should* have to answer for their decisions, and preventability remained a single indicator. Further, an item directly measuring responsibility was added as an indicator. This re-specification step was based on two assumptions. First, this also provides a fundamental link between responsibility and the latent variable being measured. An indicator of responsibility should load on a latent variable of vicarious responsibility, increasing the validity of the claim that a latent variable of responsibility is being measured in the first place. Second, Gailey and Falk (2008) use an intent item when measuring intentionality and a coercion item when measuring coercion. Thus, it is standard practice to include direct measurements of latent variable as predictive indicators.

After making these changes, the overall model suggested good fit to the data, \( \chi^2(10) = 10.57, p = .392, \text{CFI} = 1.0, \text{RMSEA} = .02 (90\% \text{ CI} = [.00, .05]), \text{SRMR} = .01. \) Because the Chi-square test was not significant, the exact-fit hypothesis cannot be rejected and it can be concluded that there are no discrepancies between the model and the data (Hypothesis 2 supported). However, the foreseeability indicator representing knowledge had a weak loading for the parole board condition (.31) so the model was re-specified and the knowledge indicator was excluded. The newly re-specified model had good fit, \( \chi^2(4) = 2.63, p = .622, \text{CFI} = 1.0, \text{RMSEA} = .00 (90\% \text{ CI} = [.00, .05]), \text{SRMR} = .00. \) This model fit was an improvement, thus, this model was used in the subsequent analysis of blame and decision-making. The hypothesized model of responsibility was not completely retained, but responsibility, preventability, accountability, and answerability modeled as a latent variable of vicarious responsibility fit the data well.
The interaction between attributional complexity and temporal contiguity on attributions of vicarious responsibility was tested prior to building the full model. This model included temporal contiguity predicting vicarious responsibility, measured as a latent variable, moderated by attributional complexity. Before adding the interaction, the overall fit of the model of temporal contiguity predicting vicarious responsibility was good, $\chi^2(16) = 12.87, p = .682, \text{CFI} = 1.0, \text{RMSEA} = .00 (90\% \text{ CI} = [.00, .04]), \text{SRMR} = .01$. When modeling the interaction, the overall fit of the model was still good, but overall fit did not improve, $\chi^2(34) = 56.03, p < .01, \text{CFI} = .99, \text{RMSEA} = .04 (90\% \text{ CI} = [.02, .06]), \text{SRMR} = .02$, and the interaction terms did not significantly predict responsibility, $p_s > .60$. Therefore, attributional complexity was not included in the final analyses (Hypothesis 4 not supported).

The interaction between vicarious responsibility and counterfactual thinking on anger and guilt was also analyzed. To run model fit statistics in lavaan, a latent variable mode or mediation analysis has to be assessed. Therefore, the tested model included the relationship between temporal contiguity on anger and guilt mediated by responsibility, with the path between responsibility and anger/guilt moderated by counterfactual thinking. When modeling the relationship between responsibility and anger/guilt while not moderated by counterfactual thinking, the model fit the data well, $\chi^2(4) = 8.67, p < .001, \text{CFI} = 0.99, \text{RMSEA} = .04 (90\% \text{ CI} = [.00, .07]), \text{SRMR} = .02$. When modeling the interaction term, the overall model fit the data poorly, $\chi^2(6) = 267.21, p < .001, \text{CFI} = 0.80, \text{RMSEA} = .23 (90\% \text{ CI} = [.21, .25]), \text{SRMR} = .12$. Therefore, the interaction between counterfactual thinking and vicarious responsibility was not supported and was not included in the final analyses.

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23 Because lavaan does not model interactions between latent variables and observed variables, a mean statistic for responsibility was used including the same indicators from the measurement model.
Finally, the interaction between need for affect and emotion on blame was analyzed. To test this model we used the latent variable of responsibility as a predictor of both emotion and blame. The overall model with the non-moderated path between emotion and blame fit the data poorly, $X^2(24) = 245.20, p < .001, \text{CFI} = 0.93, \text{RMSEA} = .15$ (90% CI = [.14, .17]), \text{SRMR} = .04. Similarly, the same model with need for affect moderating the relationship between emotion and blame fit the data poorly and did not improve overall fit (it actually worsened substantially), $X^2(96) = 4500.39, p < .001, \text{CFI} = 0.39, \text{RMSEA} = .34$ (90% CI = [.33, .35]), \text{SRMR} = .30. Therefore, the interaction between need for affect and emotion was not included in the final analyses (Hypothesis 10 not supported).

In sum, the model of vicarious responsibility, as hypothesized, fit the data as expected after reducing each dimension to a single item loading on the latent variable and after adding a direct measure of responsibility. However, knowledge was not a strong factor loading for both groups, and removing the knowledge indicator improved the overall model to fit the data better. This suggests that although the hypothesized (proposed) model of vicarious responsibility fit the data well, a revised model excluding knowledge was a better representation of the construct.

**Proposed Model of Vicarious Responsibility and Blame: Effects of Temporal Contiguity, Attributions of Vicarious Responsibility, and Emotion on Attributions of Blame.**

To test the proposed relationships between temporal contiguity, responsibility, emotion, and blame, a structural regression model was used. These analyses directly address the first and second purposes of this research, which were to develop a theoretical model of
vicarious responsibility and blame and analyze them in a situation involving a third party being held responsible for another person’s actions. These analyses also address all hypotheses related to the proposed model of vicarious responsibility and blame and alternative models of responsibility and blame (Hypotheses 8-15).

Public and parole conditions were modeled as separate groups. The previously re-specified model of responsibility was used as the latent variable in the analysis. The proposed model of blame was tested with temporal contiguity condition predicting blame (measured by a single indicator) mediated by vicarious responsibility (measured as a latent variable with responsibility, preventability, accountability, and answerability as indicators) and emotion (i.e., anger, guilt, and regret as separate mediators). Overall the model fit the data poorly, \( \chi^2(94) = 2240.62, p < .001, \text{CFI} = 0.61, \text{RMSEA} = .26 (90\% \text{ CI} = [.25, .26]), \text{SRMR} = .22 \). Thus, re-specification was needed.

To re-specify the model, latent variable loadings and regression path coefficients were examined. Latent variable loadings showed no problematic indicators. However, it appeared that temporal contiguity condition had no association with responsibility, emotion, or blame (Hypotheses 3, 7, and 8 not supported). Therefore, the model was re-specified with responsibility predicting blame, mediated by anger, guilt, and regret. Temporal contiguity condition was excluded from the model. After re-specification, the model fit the data poorly, \( \chi^2(48) = 1708.36, p < .001, \text{CFI} = 0.66, \text{RMSEA} = .15 (90\% \text{ CI} = [.14, .16]), \text{SRMR} = .058 \). Re-specification was needed again.

In a second re-specification, regret was identified as a poor predictor of blame for both groups and was removed from the model. Thus, the relationship between vicarious responsibility and blame was mediated by guilt and anger. The new model fit better than
previous model but still fit the data poorly, $X^2(24) = 245.20, p < .001$, $CFI = 0.93$, $RMSEA = 0.15$ (90% CI = [.14, .17]), $SRMR = 0.041$. Although the $CFI > .90$ and the $SRMR < .08$, the $RMSEA > 1.0$, which suggests that we cannot reject the poor fit hypothesis and that the model data discrepancy is rather large (Kline, 2011). Re-specification was needed again.

To re-specify the data, anger and guilt were analyzed. Previously modeled as separate emotions representing separate constructs, anger and guilt might be representative of the same underlying construct. This is partially supported by their correlation of $r = .75$. However, this must also be supported by theory because each model re-specification must be reflective of theoretical considerations rather than purely statistically driven modifications.

In Weiner’s (1995) model of responsibility and blame, anger and guilt are representative of the same emotional interpretation of an event. Specifically, guilt is considered to be self-directed anger. Parole board members who experience self-directed anger by default would also experience guilt; thus, both guilt and self-directed anger are the same emotional construct. For public members, other directed anger, and other directed perceived guilt are also the same construct. Weiner’s (1995) explanation for this suggests that when individuals are angry at another person, they expect them to feel guilty because it confirms their anger. Thinking that others should feel guilty is a self-validating aspect of one’s own anger. Thus, if an individual feels strongly that another person should feel guilty, it is reflective of an anger state. For both parole board and public perspectives, the experimental measures anger and guilt might possibly measure the same construct. To test this, guilt and anger were modeled as indicators of a latent variable of emotion.

After this re-specification, the model adequately fit the data, $X^2(24) = 84.98, p < .001$, $CFI = 0.98$, $RMSEA = 0.08$ (90% CI = [.06, .096]), $SRMR = 0.021$ (Hypothesis 9 supported;
Hypothesis 11 partially supported; Hypothesis 15 not supported). This meets the criteria for rejecting the RMSEA poor fit hypothesis; however, the close fit hypothesis is also rejected. Interpreting other indices was needed in this case (Kline, 2011). Because the CFI > .95 and the SRMR < .05, it is plausible to conclude that the model adequately fit the data (Hypotheses 5a and 5b partially supported; Hu & Bentler, 1999). Because adequate, or acceptable, fit was concluded, path coefficients for each group were interpreted.

Regarding individuals in the mock parole board condition, the factor loadings for vicarious responsibility were acceptable including responsibility (.88), preventability (.76), accountability (.88), and answerability (.69). Factor loadings for emotion were also acceptable, including anger (.85) and guilt (.92). Vicarious responsibility positively predicted emotion, coefficient = .85, SE = .06, p < .001, and both emotion, coefficient = .22, SE = .07, p < .01, and responsibility, coefficient = .80, SE = .08, p < .001, positively predicted blame. The indirect effect of responsibility on blame, mediated by emotion was significant, coefficient = .19, SE = .06, p < .01, 95% CI = (.06, .31), suggesting that responsibility predicts blame through its relationship with emotion (see Figure 1a).

Regarding individuals in the public condition, the factor loadings for vicarious responsibility were acceptable including responsibility (.86), preventability (.72), accountability (.88), and answerability (.84). Factor loadings for emotion were also acceptable, including anger (.91) and guilt (.81). Vicarious responsibility positively predicted emotion, coefficient = 1.09, SE = .05, p < .001. Emotion negatively predicted blame, coefficient = -.163, SE = .06, p < .01, and responsibility positively predicted blame, coefficient = 1.26, SE = .08, p < .001. The indirect effects of responsibility related to blame, mediated by emotion, were significant at p < .05 (see Figure 1b).
Figure 1a. Proposed Model of Vicarious Responsibility Predicting Emotion and Blame for the Mock Parole Board Condition.

Note. *p < .05; **p < .01; ***p < .001.

Figure 1b. Proposed Model of Vicarious Responsibility Predicting Emotion and Blame for the Public Condition.

Note. *p < .05; **p < .01; ***p < .001
Blame was also modeled while accounting for relationships with individual difference and attitude predictors. When disposition and situational attributions, belief in a just world, need for cognition, faith in intuition, external locus of control, need for affect, attributional complexity, parole board sanctioning perceptions, offender rehabilitation perceptions, and legal authoritarianism were modeled as predictors, the overall model fit the data poorly, $X^2(180) = 692.93$, $p < .001$, CFI = 0.88, RMSEA = .08 (90% CI = [.08, .09]), SRMR = .11. This suggests that modeling individual differences and attitudes did not improve the overall model and did not meaningfully explain attributions of blame.

An alternative model to the previous blame model would be to treat knowledge, preventability, accountability, and answerability as predictors of responsibility rather than indicators of a latent variable of vicarious responsibility. In this model, the single item indicators used in the latent variable were used as predictors, and the single item of responsibility was used as the measure of direct responsibility. When modeling these dimensions in this manner, the overall fit was poor, $X^2(24) = 572.83$, $p < .001$, CFI = 0.77, RMSEA = .22 (90% CI = [.21, .23]), SRMR = .08. Thus, vicarious responsibility treated as a latent variable with responsibility, preventability, answerability, and accountability as predictors better fit the data.

To assess group differences, measurement invariance was tested. Overall, configural invariance was supported, metric invariance was partially supported, and factor invariance was not supported. Metric invariance was supported for all indicators except answerability and guilt. Thus, caution must be taken when making cross-group comparisons of latent

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24 Individual difference measures were modeled as single measured variables rather than latent variables. This was because of the complexity of modeling 8 latent variables with between 5 and 26 indicators each.
variables and latent variable relationships. This can also be conceptualized as the notion that participants conceptualize the constructs and the organization of constructs similarly across groups, but differences in latent variables or relationships between latent variables cannot be attributed to group type. Although each set of variables can be interpreted within each group, differences in relationships between variables cannot be confidently compared across groups. This is likely a result of the experimental design and condition specific questions/information (e.g., parole board decision criteria, disagreement among parole board members, perceived emotion compared to experienced emotion).

In sum, there was no evidence to support the effect of differences in temporal contiguity on vicarious responsibility, emotion or blame. There was, however, support for the relationship between vicarious responsibility, emotion, and blame. The proposed theoretical model of vicarious responsibility was positively related to blame, and this relationship was mediated by emotion. Instead of guilt and anger independently predicting blame differently for each group, they predicted blame when modeled together as a latent variable. This treatment of emotion items likely reflected guilt for the parole condition and anger for the public condition due to their differences in wording. In the parole condition, anger was worded as self-directed anger which is often conceptualized as similar to guilt (Weiner, 1995) or sharing appraisals and appraisal tendencies (Ellsworth & Tong, 2006; Hansen & Sassenberg, 2011). For the public condition guilt was worded as the public’s belief in how guilty the parole board should feel, which is conceptualized as justified anger (Weiner, 1995). Therefore, despite the lack of support for temporal contiguity, vicarious responsibility and emotion adequately explain attributions of (vicarious) blame.
Competing Models of Responsibility and Blame

After identifying a fitting model of vicarious responsibility predicting blame, it was compared against other models of responsibility and blame (Hypotheses 12-14). These alternative models were assessed, below, to determine whether or not the proposed model of vicarious responsibility better fit the data compared to previously established and proposed models of responsibility and blame.

Shaver’s (1985) and Gailey and Falk’s (2008) model of responsibility and blame. First, the proposed model of vicarious responsibility was compared to Shaver’s (1985) model of responsibility, along with Gailey and Falk’s (2008) adaptation. Because Shaver (1985) proposed that justifications and excuses would moderate the relationship between responsibility and blame, a latent variable was created using justification and excuse as indicators to test this moderating relationship. The fully specified model assessed the relationship between temporal contiguity condition and blame (measured by a single indicator) mediated by responsibility (measured as a latent variable with causality, knowledge, intentionality, coercion, and moral wrongfulness as indicators), with the relationship between responsibility and blame moderated by justifications and excuses. When running the model, the covariance matrix was not positive definite, suggesting eigenvalues negative in valence or equaling zero; thus, the output could not be interpreted confidently. To remedy this issue, the model was re-specified using justification as a single moderating variable and responsibility as a single item measure of the mean of the latent variable indicators.25 Thus, the model included the temporal contiguity predicting blame mediated by

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25 Because lavaan does not model interactions between latent variables and observed variables, a mean statistic for responsibility was used including the same indicators from the latent variable model.
responsibility (measured as a single mean item) with the relationship between responsibility and blame moderated by perceived justification. To test moderation, the model was first run without the moderating relationship, and the overall model fit the data poorly, $X^2(4) = 11.07, p < .05$, CFI = 0.97, RMSEA = .07 (90% CI = [.02, .11]), SRMR = .03. Because the upper bound of the CFI was greater than .10, the poor fit hypothesis could not be rejected, suggesting the model does not adequately fit the data (Kline, 2011). When modeling the interaction between justification and responsibility predicting blame, the overall model still fit the data poorly, $X^2(8) = 708.08, p < .001$, CFI = 0.46, RMSEA = .47 (90% CI = [.45, .49]), SRMR = .09. Model fit worsened substantially when adding the interaction term. Thus, the interaction term was not predictive of blame and the model needed to be re-specified again.

To re-specify the model, the interaction term was removed altogether. In this model, temporal contiguity predicted blame, mediated by responsibility (measured as a latent variable with causality, knowledge, intentionality, coercion, and moral wrongfulness mean values as indicators). After re-specification, the model did not fit the data well, $X^2(34) = 255.34, p < .001$, CFI = 0.87, RMSEA = .13 (90% CI = [.11, .14]), SRMR = .07. Thus, re-specification was needed again.

To re-specify the model using theoretical considerations, temporal contiguity was identified as problematic because it did not predict responsibility or blame. Thus, it was removed. The re-specified model included responsibility (measured as a latent variable with causality, knowledge, intentionality, coercion, and moral wrongfulness as indicators) predicting blame. This model was then analyzed, and the model fit was still poor, $X^2(18) = 242.79, p < .001$, CFI = 0.86, RMSEA = .18 (90% CI = [.16, .20]), SRMR = .09. Thus, re-specification was needed.
When modeling Shaver’s original theory of responsibility, Gailey and Falk (2008) suggested removing coercion as a dimension. The model was re-specified to reflect this theoretical assertion. In the new model, responsibility (measured as a latent variable with causality, knowledge, intentionality, and moral wrongfulness as indicators) predicted blame. The new model fit the data poorly, $\chi^2(10) = 71.36, p < .001, \text{CFI} = 0.96, \text{RMSEA} = .12$ (90% CI = [.10, .15]), SRMR = .04. Because the RMSEA was above 1.0 the poor fit hypothesis cannot be rejected (Hypothesis 12b not supported).

Because the distribution for intentionality was problematic and because intentionality was predicted to be inadequate in measuring vicarious responsibility, the model was re-specified excluding intentionality. In this model, responsibility (measured as a latent variable with causality, knowledge, and moral wrongfulness as indicators) predicted blame. After re-specification, the overall model fit was still poor, $\chi^2(4) = 29.56, p < .001, \text{CFI} = 0.98, \text{RMSEA} = .13$ (90% CI = [.08, .17]), SRMR = .03. Again, because the RMSEA was above 1.0 the poor fit hypothesis cannot be rejected.

Lastly, latent indicators were modeled as predictors of blame rather than indicators of a latent variable of responsibility, which is simply linear regression. In this case, the overall model was significant, $R^2 (3,794) = .67, p < .001$. Causality positively predicted blame, $b = 1.01, \text{SE} = .03, p < .001$, and intent was negatively related to blame, $-.37, \text{SE} = .14, p < .01$.26 Because simple linear regression models cannot be compared to structural regression models, there is not enough evidence to make any claims of model fit; however, it appears that the causality dimension is the best predictor of responsibility (Hypothesis 12a not supported).

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26 When running a regression and excluding intent as a predictor, $R^2$ was still .67 with only causality predicting blame.
Shultz et al.’s (1987) model of responsibility and blame. A second alternative model by Shultz et al. (1987) suggests that vicarious responsibility is predicted by controllability and preventability. Two models were used to assess this hypothesis. First, controllability and preventability were modeled as predictors of vicarious responsibility; second, controllability, preventability, and responsibility were modeled as indicators of a latent variable of responsibility. For both of these models, emotion was also tested as mediating the relationship between responsibility and blame.

In the first model, temporal contiguity predicted blame, mediated by controllability, preventability, and responsibility, such that temporal contiguity predicted both preventability and controllability, which then predicted responsibility. The overall model fit the data poorly, $X^2(10) = 192.41, p < .001$, CFI = 0.85, RMSEA = .21 (90% CI = [.19, .24]), SRMR = .10. Thus, re-specification was needed.

To re-specify the model, indicator loadings and path coefficient were analyzed to identify problematic paths. Temporal contiguity was again identified as not predictive of controllability, preventability, or blame. Thus, it was removed. In this re-specified model, controllability and preventability (measured separately and single item predictors) predicted blame, mediated by responsibility. The re-specified model fit the data poorly, $X^2(4) = 86.61, p < .001$, CFI = 0.90, RMSEA = .23 (90% CI = [.19, .26]), SRMR = .05.

This model was also tested including anger and guilt as mediating the relationship between responsibility and blame. In this model, controllability and preventability predicted blame, mediated by responsibility and emotion. The overall model fit was poor, $X^2(16) = 767.53, p < .001$, CFI = 0.62, RMSEA = .34 (90% CI = [.32, .36]), SRMR = .16 (Hypothesis 13a not supported).
In the second model, vicarious responsibility was modeled as a latent variable with controllability, preventability, and responsibility as indicators. Thus, in this model, temporal contiguity condition predicted blame, mediated by vicarious responsibility (measured as a latent variable with controllability, preventability, and responsibility as indicators). Overall, the model fit the data well, $\chi^2(12) = 5.376, p = .94$, CFI = 1.0, RMSEA = .00 (90% CI = [.00, .01]), SRMR = .01. Therefore, because the RMSEA 90% CI lower bound was below .50, the close fit hypothesis cannot be rejected, but the poor fit hypothesis can be rejected (Kline, 2011). Moreover, because the chi-square test was not significant, the exact fit hypothesis cannot be rejected.

Upon inspection, temporal contiguity did not predict responsibility or blame, so temporal contiguity was removed and the model was re-fitted to the data. Overall the model fit the data well, $\chi^2(12) = 3.00, p = .56$, CFI = 1.0, RMSEA = .0 (90% CI = [.00, .06]), SRMR = .01. Again, the exact fit hypothesis cannot be rejected (Kline, 2011). Therefore, path coefficients can be interpreted.

Regarding the mock parole board condition, preventability (.73) and responsibility (.90) had adequate loadings onto latent vicarious responsibility, but controllability had a weak loading (.38). Responsibility predicted blame, coefficient = 1.14, SE = .08, $p < .001$.

Regarding the public condition, preventability (.69) and responsibility (.88) had adequate loadings onto latent vicarious responsibility, but controllability had a weak loading (.55). Responsibility predicted blame, coefficient = 1.25, SE = .07, $p < .001$. These results suggest that vicarious responsibility (measured as a latent variable with preventability, controllability, and responsibility as indicators) predicts blame with good fit (see Figure 2a and Figure 2b for path coefficients).
When also modeling emotion as mediating the relationship between responsibility and blame, such that responsibility predicted blame, mediated by anger and guilt, the overall model fit the data poorly, $X^2(16) = 539.98, p < .001$, CFI = .75, RMSEA = .29 (90% CI = [.27, .30]), SRMR = .09 (Hypothesis 13b partially supported).

*Figure 2a.* Shultz et al.’s (1987) Model of Vicarious Responsibility Predicting Blame – Parole Board Condition.

**Figure 2b.* Shultz et al.’s (1987) Model of Vicarious Responsibility Predicting Blame – Public Condition.

Note. *p < .05, **p < .01, ***p < .001.
**Affect-as-information hypothesis.** Another alternative model of responsibility analyzed positive and negative affect as mediating the relationship between responsibility and blame, which tested the affect-as-information hypothesis. Initially, responsibility predicted blame, mediated by positive and negative affect. Because temporal contiguity did not predict vicarious responsibility (measured as a latent variable with responsibility, preventability, accountability, and answerability), it was not included in the model. Overall, the model fit the data poorly, $X^2(16) = 91.44, p < .001$, $CFI = .97$, $RMSEA = .084$ (90% CI = [.07, .10]), $SRMR = .02$ (Hypothesis 14 not supported). Neither positive nor negative affect predicted blame. Moreover, there were no available theoretical re-specifications.

**Malle et al.’s (2014) path model of blame.** Lastly, the path model of blame was tested. To test Malle et al.’s (2014) path model of blame, two approaches were taken. First, latent variables for his dimensions of causality, foreseeability (i.e., capacity), and intentionality were created and used. This approach was taken to use the full advantage of structural equation modeling in predicting blame according to the theoretical paths while reducing the effect of measurement error. Also, preventability and blame were measured with single item measures.

Second, a single item path model was used in which each cognitive component in the model was measured by a single item specific to Malle et al.’s (2014) description of the component. In this case, causality was measured by direct causality, intentionality was measured by direct intention, obligation was measured by direct preventability, and capacity was measured by direct foreseeability (should have foreseen). These single items match up with each description of the path model components precisely (see Malle et al., 2014).

Using latent variable modeling, each set of indicators was chosen based on Malle et
al.’s (2014) description of each cognitive component in the path model. The specific model included: causality (measured by a latent variable with responsibility, fault, and cause as indicators) predicting intentionality (measured by a latent variable with intent, non-accidental circumstances, and premeditation as indicators) and preventability (to test whether intent is skipped in situations of vicarious responsibility; see Guglielmo & Malle, 2010); intentionality predicting preventability and blame; preventability predicting knowledge (measured by a latent variable with foreseeability, awareness of consequences, and recognition of potential seriousness as indicators); and knowledge predicting blame. The overall model fit the data poorly, $\chi^2(100) = 1072.46, p < .001$, CFI = .76, RMSEA = .16 (90% CI = [.15, .16]), SRMR = .12. After in-depth analysis, there were no identifiable re-specification steps within Malle et al.’s (2014) theory that could have been made to improve the model fit.27

When using single item indicators, the model included: causality predicting intentionality and preventability (see Guglielmo & Malle, 2010); intentionality predicting preventability and blame; preventability predicting foreseeability; and foreseeability predicting blame. Overall the model fit the data poorly, $\chi^2(8) = 442.19, p < .001$, CFI = .65, RMSEA = .37 (90% CI = [.34, .39]), SRMR = .16 (Hypothesis 25a not supported). Again, there were no identifiable re-specification steps within Malle et al.’s (2014) theory that could have been made to improve the model fit.

In sum, traditional and non-vicarious responsibility models were inadequate in modeling attributions of blame for third parties (parole board) held responsible for another

27 Identifying and removing all problematic indicators for each latent variable worsened the overall model fit.
person’s (parolee) actions. However, both the proposed model of vicarious responsibility and Schultz et al.’s (1987) model of responsibility predicted blame in the same situation. Moreover, modeling emotion as general positive or negative affect is not sufficient in explaining the relationship between responsibility and blame mediated by emotion (see Table 3 for fit statistics comparisons across all models).

**Proposed Model of Vicarious Responsibility and Blame Related to Parole Board Decision-Making**

The third purpose of the study was to examine whether models of vicarious responsibility, emotion, and blame predicted subsequent release decisions. In this section, the proposed model of blame will be tested as predicting release decisions. This model will then be compared to other models of responsibility in blame as they relate to decision-making.

Structural equation modeling was used to test models of mock parole board member decision-making, while also incorporating the previously specified models of blame. In these analyses each construct represents the decision-maker’s perspective; thus, responsibility and blame refer to holding one’s self responsible or blaming one’s self.

Table 3.

*Fit Statistics Comparing the Proposed Model of Vicarious Responsibility Predicting Blame to Other Models of Responsibility Predicting Blame.*

<table>
<thead>
<tr>
<th>Model</th>
<th>Chi-Square</th>
<th>CFI</th>
<th>RMSEA</th>
<th>90% CI lower</th>
<th>90% CI upper</th>
<th>SRMR</th>
<th>Fit</th>
</tr>
</thead>
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<tr>
<td>Proposed Model-Vicarious Responsibility</td>
<td>84.98***</td>
<td>.98</td>
<td>.08</td>
<td>.063</td>
<td>.096</td>
<td>.02</td>
<td>Adequate</td>
</tr>
<tr>
<td>Shaver’s/ Gailey and Falk’s Model</td>
<td>71.36***</td>
<td>.96</td>
<td>.12</td>
<td>.10</td>
<td>.15</td>
<td>.04</td>
<td>Poor</td>
</tr>
<tr>
<td>Shultz et al.’s Model Excluding Emotion</td>
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<td>1.0</td>
<td>.00</td>
<td>.00</td>
<td>.01</td>
<td>.01</td>
<td>Close</td>
</tr>
<tr>
<td>Affect as Information Model</td>
<td>91.44***</td>
<td>.97</td>
<td>.08</td>
<td>.07</td>
<td>.10</td>
<td>.02</td>
<td>Poor</td>
</tr>
<tr>
<td>Malle et al.’s Path Model of Blame</td>
<td>1072.46***</td>
<td>.76</td>
<td>.16</td>
<td>.15</td>
<td>.16</td>
<td>.12</td>
<td>Poor</td>
</tr>
</tbody>
</table>

*p < .05; **p < .01; ***p < .001
To test the proposed model of vicarious responsibility and blame, temporal contiguity was analyzed as predicting more punitive decision-making\textsuperscript{28}, mediated by vicarious responsibility (measured as a latent variable with responsibility, preventability, accountability, and answerability as indicators), emotion (measured as a latent variable with guilt and anger as indicators), blame, and anticipatory emotion, with the relationship between anticipatory emotion and punitiveness moderated by information processing. In this model information processing was measured by the dependent variable\textsuperscript{29} in which individuals’ information processing states were coded based on their ability to differentiate the levels of risk in their decisions. For this measure, individuals who processed rationally reported release ratings for the inmates that differed from one another and reflected the level of risk (their highest rating corresponded with the low risk inmate and their lowest rating corresponded with the high risk inmate; see Appendix H.).\textsuperscript{30} Also, because it was possible that individuals who were more punitive in their initial parole release decision might be generally more punitive, the initial release recommendation was modeled as predicting general punitiveness in the subsequent decisions.

The model included: temporal contiguity only predicting responsibility and punitiveness; responsibility predicting emotion, blame, and punitiveness; emotion predicting blame, anticipatory emotion, and punitiveness; blame predicting anticipatory emotion and

\textsuperscript{28} Punitive decision-making is based on lower scores on the parole release rating scale. Thus, negative relationships would suggest that a variable is related to more punitive release decisions.

\textsuperscript{29} This model was also run using the stock trade, parking lot, bat/ball cost, widgets, and pond measures of information processing, but no models fit the data well; therefore, only the model including the dependent variable as the information processing measure is reported. All information processing state variables were coded as 0=experiential processing; 1=rational processing. The first re-specification step was to exclude the moderating relationship which is why only one output is reported.

\textsuperscript{30} This type of coding strategy allowed for change in overall punitiveness, but it did not allow for change in perceived risk order across the three inmates. This coding strategy was chosen instead of a coding strategy requiring participants to report release ratings in the designated categories identified in the pilot study.
punitiveness; anticipatory emotion predicting punitiveness; and initial parole recommendation predicting punitiveness. Anticipatory emotion included anticipatory regret and anticipatory guilt as separate single item mediators of the relationship between blame and punitiveness. Overall, the model fit the data poorly, $\chi^2(73) = 1393.81$, $p < .001$, CFI = .59, RMSEA = .22 (90% CI = [.21, .23]), SRMR = .13. Thus model re-specification was needed.

In order to identify problematic paths, indicator loading and regression paths were analyzed. All indicator loadings appeared to be adequate. Temporal contiguity condition did not significantly predict responsibility or punitiveness so it was removed from the model (Hypothesis 16 not supported). Similarly, there was no evidence of moderation, thus, information processing was excluded from the model (Hypothesis 19 not supported). Overall, the re-specified model fit the data adequately, $\chi^2(36) = 105.46$, $p < .001$, CFI = .96, RMSEA = .08 (90% CI = [.06, .09]), SRMR = .04. Because the CFI > .95, the RMSEA 90% CI upper bound < .10, and SRMR < .08, the poor fit hypothesis can be rejected. However, because the RMSEA 90% CI lower bound >.05, the close fit hypothesis is rejected. Thus, the model fits the data adequately (Kline, 2011).

Factor loadings for vicarious responsibility were acceptable including responsibility (.88), preventability (.76), accountability (.88), and answerability (.69). Factor loadings for emotion were also acceptable, including anger (.84) and guilt (.92). Responsibility positively predicted emotion, coefficient = .85, $SE = .06$, $p < .001$, and blame, coefficient .81, $SE = .08$, $p < .001$. Emotion positively predicted blame, coefficient = .21, $SE = .07$, $p < .01$, anticipatory guilt, coefficient = 1.16, $SE = .08$, $p < .001$, and anticipatory regret, coefficient = .20, $SE = .07$, $p < .001$. Blame negatively predicted anticipatory regret, coefficient = -.05, SE
= .02, \( p < .01 \). However, only initial release ratings were significantly related to punitiveness, coefficient = .23, \( SE = .08, p < .01 \). The model was re-specified to better explain punitive decision-making.

To re-specify the model, theory was reconsidered. While anger and guilt both predicted blame in the earlier model of responsibility, it is possible that guilt and anger might not relate to both blame and decision-making in the same way. Guilt often leads to reparative behaviors, and punitive decision-making was theorized as a vehicle for this type of behavior. However, anger promotes aggressive and potentially destructive behavior. The model was re-specified to reflect this theoretical prediction and the isolation of guilt as the sole emotion predicting behavior change.

In the re-specified model, guilt was the only emotion mediating the relationship between responsibility and blame. Similarly, the relationship between anticipatory emotion and punitiveness was modeled as full mediation, and blame, responsibility, and guilt were not modeled as directly relating to punitiveness. Initial parole release decision was still modeled as predicting punitiveness. The final model included responsibility (measured as a latent variable with responsibility, preventability, accountability and answerability as indicators) predicting punitiveness fully mediated by guilt, blame, and anticipatory emotion (i.e., guilt and regret). Specifically the model included the following paths: responsibility predicted guilt and blame; guilt predicted blame, anticipatory guilt, and anticipatory regret; blame predicted anticipatory guilt and anticipatory regret; and anticipatory guilt, anticipatory regret, and initial parole release recommendation predicted punitiveness. Overall the model fit the data poorly, \( \chi^2(31) = 105.46, p < .001 \), CFI = .96, RMSEA = .08 (90% CI = [.06, .09]), SRMR = .04. Model re-specification was needed.
To re-specify the model anticipatory regret was completely removed because it was not significantly predicted by blame, and it did not significantly predict punitiveness (Hypothesis 24 not supported). The re-specified model included the following paths: responsibility predicted guilt and blame; guilt predicted blame and anticipatory guilt; blame predicted anticipatory guilt; and anticipatory guilt and initial parole release recommendation predicted punitiveness. Overall, the model fit the data adequately, $\chi^2(25) = 74.52, p < .001$, CFI = .96, RMSEA = .08 (90% CI = [.06, .097]), SRMR = .05. Because the RMSEA 90% CI lower bound is not less than .05 and because the upper bound is not above 1.0, both the close fit and poor fit hypotheses are rejected. This suggests that the model fit is adequate, but other indices need to be interpreted. Because the CFI is above .95 and the SRMR is below .08, the model fit is retained as an acceptable fit to the data (Hu & Bentler, 1999; Kline, 2011).

Factor loadings on vicarious responsibility were acceptable, including responsibility (.88), preventability (.76), accountability (.88), and answerability (.69). Responsibility positively predicted guilt, coefficient = .95, $SE = .06$, $p < .001$, and blame, coefficient = .87, $SE = .06$, $p < .001$. Guilt positively predicted blame, coefficient = .12, $SE = .05$, $p < .05$, and anticipatory guilt, coefficient = .73, $SE = .04$, $p < .001$. Anticipatory guilt predicted more punitive release decisions, coefficient = -.17, $SE = .03$, $p < .001$. Lastly, initial parole release was positively related to subsequent parole release, coefficient = .19, $SE = .07$, $p < .01$. The indirect effect of responsibility on punitive decision-making, mediated by guilt, blame, and anticipatory guilt was significant, coefficient = -.003, $SE = .002$, $p < .05$. This suggests that perceptions of self-directed vicarious responsibility predict punitive subsequent release decisions as a result of increased guilt, self-blame, and anticipatory guilt (Hypotheses 17 and 18 supported; Hypothesis 20 partially supported). This result remains when accounting for
general punitive tendencies in prior decisions (see Figure 3a).

This model was then analyzed when also accounting for relationships between individual differences and attitude predictors and punitiveness. When accounting for direct effects of disposition and situational attributions, belief in a just world, need for cognition, faith in intuition, external locus of control, need for affect, attributional complexity, parole board sanctioning perceptions, offender rehabilitation perceptions, emotional relevance in decision-making, and legal authoritarianism on punitiveness, the overall model fit the data poorly, $\chi^2(102) = 387.02, p < .001$, CFI = .87, RMSEA = .08 (90% CI = [.07, .09]), SRMR = .11. Therefore, the addition of individual predictors did not improve the model or meaningfully explain parole board decision-making.

*Figure 3a. Proposed Model of Vicarious Responsibility, Guilt, Blame, and Decision-Making.*

Note. *$p < .05$, **$p < .01$, ***$p < .001$. Indirect effect of vicarious responsibility on release decision, mediated by guilt, blame, and anticipatory guilt was significant at $p < .05$. 
In sum, the proposed model of decision-making, even after accounting for individual differences and attitude predictors, supports the hypothesized relationships in that attributions of vicarious responsibility predict general punitiveness, mediated by guilt, blame, and anticipatory guilt. Although this model tests the hypotheses, and supports the predictions, the moderating effect of information processing was not supported. After re-reading the literature on information processing, it is possible that emotion predicts processing state, which then predicts judgments and behavior. In this case, information processing would be a mediating variable rather than a moderating variable (Feigenson & Park, 2006). Therefore, the previous model of blame that fit the data adequately was re-specified to include information processing state as mediating the relationship between anticipatory guilt and punitive decision-making. Information processing state was measured three different ways. First, CEST information processing measures (i.e., the stock trade and the parking lot problems) were averaged together to form a single item CEST processing measure. Second, the three math problems (i.e., bat/ball cost, widgets, and pond problems) were averaged together to form a single item math processing measure. Third, the dependent variable was used as an information processing measure, coded the same way as it was in the moderation analysis.

Both models, which included the CEST measures and the math problems fit the data poorly and information processing did not predict punitive release decisions. However, the model in which the dependent variable processing measure was used fit the data well, $\chi^2(32) = 72.67, p < .001$, CFI = .90, RMSEA = .06 (90% CI = [.04, .08]), WRMR = .90. Because

31 Prior to averaging the items, each item was coded as a 0 for experiential processing and a 1 for rational processing.
the CFI is above .90, RMSEA lower bound is less than .05, and the WRMR is less than 1, the close fit hypothesis cannot be rejected, but the poor fit hypothesis can be rejected (Kline, 2011).

Factor loadings on vicarious responsibility were acceptable, including responsibility (.87), preventability (.78), accountability (.90), and answerability (.67). Responsibility positively predicted guilt, coefficient = .96, \( SE = .11, p < .001 \), and blame, coefficient = .84, \( SE = .08, p < .001 \). Guilt positively predicted blame, coefficient = .13, \( SE = .05, p < .05 \), but did not predict anticipatory guilt, \( p > .05 \). Anticipatory guilt predicted experiential processing,\(^{32}\) coefficient = -.19, \( SE = .05, p < .01 \), and more punitive release decisions, coefficient = -.09, \( SE = .03, p < .01 \).

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\(^{32}\) Because dependent variable information processing was measured as a dichotomous variable, this coefficient is interpreted as a probit.
Information processing predicted parole release decisions such that experiential processing was related to more punitive release decisions, coefficient = .17, $SE = .03$, $p < .001$. Lastly, initial parole release was positively related to subsequent parole release, coefficient = .17, $SE = .07$, $p < .01$, such that individuals who made more punitive initial release decisions also made more punitive subsequent release decisions. Blame no longer predicted punitiveness. The indirect effect of responsibility on punitive decision-making, mediated by guilt, anticipatory guilt, and information processing state was significant, coefficient = -.022, $SE = .01$, $p < .01$ (see Figure 3b).

**Competing Decision-Making Models**

The current proposed model of responsibility, emotion, blame, and decision-making was compared to other models of responsibility and blame. Although many of the blame models from the previous re-specifications were retained, temporal contiguity and information processing were also included in the initial models to account for potential relationships with responsibility and blame in the context of decision-making despite their prior null findings. This allowed each to be modeled as proposed before re-specification.

**Shaver’s (1985) and Gailey and Falk’s (2008) model of responsibility and blame.**

To test Shaver’s (1985) and Gailey and Falk’s (2008) model, the previously re-specified model of responsibility (measured by causality, knowledge, intentionality, and moral wrongfulness as indicators) was used. In this model, temporal contiguity predicted punitiveness, mediated by responsibility and blame, with the relationship between blame and punitiveness moderated by information processing state. Also, initial parole release recommendation was modeled as predicting punitiveness to account for punitive tendencies.
in parole release decisions. The overall model fit the data poorly, $X^2(24) = 423.17, p < .001$, CFI = .52, RMSEA = .23 (90% CI = [.21, .24]), SRMR = .11. To re-specify the model, the moderating effect of information processing on the relationship between blame and punitiveness was not significant; thus, it was removed. The newly re-specified model fit the data poorly, $X^2(14) = 117.87, p < .001$, CFI = .81, RMSEA = .15 (90% CI = [.13, .18]), SRMR = .09 (Hypothesis 21 not supported).

**Shultz et al.’s (1987) model of responsibility, blame, and decision-making.** To test Shultz et al.’s (1987) model of vicarious responsibility the previously specified model of responsibility was used as predicting blame. The model tested responsibility (measured as a latent variable with controllability, preventability, and responsibility as indicators) predicting punitiveness, mediated by blame, and the relationship between blame and punitiveness was moderated by information processing state. Overall, the model fit the data poorly, $X^2(16) = 321.38, p < .001$, CFI = .61, RMSEA = .24 (90% CI = [.22, .26]), SRMR = .10.

To re-specify the model, the moderating effect of information processing was removed. This was consistent with past re-specifications as information processing state does not appear to moderate the relationship between blame and punitiveness in subsequent release decisions. Thus, responsibility was modeled predicting punitiveness, mediated by blame. Overall, the re-specified model fit the data adequately, $X^2(8) = 17.87, p < .05$, CFI = .98, RMSEA = .06 (90% CI = [.02, .099]), SRMR = .05. Because the RMSEA is less than .05 and the upper bound of the confidence interval is less than .10, the close fit hypothesis cannot be rejected, and the poor fit hypothesis can be rejected (Kline, 2011). Preventability (.74) and responsibility (.90) loaded strongly on latent responsibility, but controllability loaded weakly (.38). Responsibility positively predicted blame, coefficient = 1.13, SE = .076, $p < .001$, and
punitiveness, coefficient = .51, $SE = .26$, $p < .05$. Initial parole release ratings positively predicted subsequent release ratings, coefficient = .39, $SE = .095$, $p < .001$ (Hypothesis 22 not supported; see Figure 4).

To test the full mediation model, the same model was re-run but re-specified without the direct effect of responsibility on punitiveness. Overall, the model fit the data poorly, $\chi^2(9) = 23.37$, $p < .01$, CFI = .97, RMSEA = .07 (90% CI = [.04, .10]), SRMR = .06. Because the lower bound is below .05 and the upper bound is above 1.0 the close fit and the poor fit hypotheses cannot be rejected; therefore, the model must be interpreted with caution.

Preventability (.73) and responsibility (.90) loaded strongly on latent responsibility, but controllability loaded weakly (.38). Responsibility positively predicted blame, coefficient = 1.13, $SE = .076$, $p < .001$, and blame predicted less punitive release decisions, coefficient = .31, $SE = .05$, $p < .001$. Also, initial parole release ratings positively predicted subsequent release ratings, such that individuals who were more punitive initially were also more punitive during subsequent decisions. Moreover, the indirect effect of responsibility on punitiveness, mediated by blame was significant, coefficient = .35, $SE = .06$, $p < .001$.

*Figure 4.* Shultz et al.’s (1987) Model of Responsibility, Blame, and Decision-Making.

Note. *$p < .05$, **$p < .01$, ***$p < .001$. 
To compare the two adequate fitting models, a chi-square difference test was conducted, allowing the nested models to be directly compared. Results suggest that the two models differ significantly from each other $X^2_{\text{diff}}(1) = 5.5, p < .05$. This suggests fit preference for the model that included the predictive path from responsibility to punitiveness because the poor fit hypothesis could be rejected.

**Affect-as-information.** To test the affect-as-information hypothesis, the initial model included responsibility (measured as a latent variable with responsibility, preventability, accountability, and answerability as indicators) predicting punitiveness, mediated by positive and negative affect and blame. The relationship between blame and punitiveness was moderated by information processing state. In this model the following paths were included: responsibility predicted positive affect, negative affect, blame, and punitiveness; positive and negative affect predicted blame; blame predicted punitiveness, moderated by information processing state; and initial parole release ratings predicted punitiveness in subsequent release ratings. Overall, the model did not fit the data well, $X^2(38) = 381.97, p < .001, \text{CFI} = .73, \text{RMSEA} = .17 (90\% \text{ CI} = [.15, .18]), \text{SRMR} = .09$. Thus, the model needed to be re-specified.

Upon inspection, the moderating relationship between blame and information processing on punitiveness was not significant so information processing state was removed from the model. After this re-specification, the model fit the data adequately, $X^2(24) = 61.40, p < .001, \text{CFI} = .96, \text{RMSEA} = .07 (90\% \text{ CI} = [.049, .09]), \text{SRMR} = .05$. This model fits the data adequately and because the RMSEA confidence interval includes a lower bound below .05 and an upper bound below .10, the poor fit hypothesis can be rejected, but the close fit
hypothesis cannot be rejected (Kline, 2001). Moreover, because the CFI is greater than .95 and the SRMR is below .08, the model is supported as adequately fitting the data (Hu & Bentler, 1999).

Indicators of vicarious responsibility loaded adequately onto latent vicarious responsibility, including responsibility (.89), preventability (.76), accountability (.87), and answerability (.69). Responsibility positively predicted positive affect, coefficient = .13, \( SE = .05, p < .05 \), and negatively predicted negative affect, coefficient = -.051, \( SE = .01, p < .05 \). Responsibility also positively predicted both blame, coefficient = .98, \( SE = .04, p < .001 \), and less punitive release decisions, coefficient = .35, \( SE = .17, p < .05 \). Lastly, initial parole release ratings positively predict subsequent release ratings, coefficient = .40, \( SE = .10, p < .001 \). There were no direct effects of blame or indirect effects of affect on punitiveness in subsequent release decisions (Hypothesis 23 not supported; see Figure 5).

Figure 5. Affect-as-Information and Decision-Making Model.

Note. *\( p < .05 \), **\( p < .01 \), ***\( p < .001 \).
Malle et al.’s (2014) path model of blame. Using the previously specified latent variable model, the Malle et al. (2014) path model of blame was used to predict release decisions. Also, in this model, initial parole release decision ratings predicted subsequent release decision ratings. The specific model included: causality (measured by a latent variable with responsibility, fault, and cause) predicting intentionality (measured by a latent variable with intent, non-accidental circumstances, and premeditation as indicators) and preventability (to test whether intent is skipped in situations of vicarious responsibility; see Guglielmo & Malle, 2010); intentionality predicting preventability and blame; preventability predicting knowledge (measured by a latent variable with foreseeability, awareness of consequences, and recognition of potential seriousness as indicators); and knowledge and initial release decision ratings predicting blame. The overall model fit the data poorly, $\chi^2(86) = 722.00, p < .001, \text{CFI} = .68, \text{RMSEA} = .15 (90\% \text{ CI} = [.14, .16]), \text{SRMR} = .14$; Hypothesis 25b not supported).

Table 4.

Fit Statistics Comparing the Proposed Model of Vicarious Responsibility, Blame, and Decision-Making to Other Models.

<table>
<thead>
<tr>
<th>Model</th>
<th>Chi-Square</th>
<th>CFI</th>
<th>RMSEA</th>
<th>90% CI lower</th>
<th>90% CI upper</th>
<th>SRMR</th>
<th>Fit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proposed Model-Vicarious Responsibility</td>
<td>74.52***</td>
<td>.96</td>
<td>.08</td>
<td>.06</td>
<td>.097</td>
<td>.05</td>
<td>Adequate</td>
</tr>
<tr>
<td>Proposed Model - Information Processing</td>
<td>72.67***</td>
<td>.90</td>
<td>.06</td>
<td>.04</td>
<td>.08</td>
<td>.90*</td>
<td>Adequate</td>
</tr>
<tr>
<td>Shaver’s/ Gailey and Falk’s Model</td>
<td>117.87***</td>
<td>.81</td>
<td>.15</td>
<td>.13</td>
<td>.18</td>
<td>.09</td>
<td>Poor</td>
</tr>
<tr>
<td>Shultz et al.’s Model Excluding Emotion</td>
<td>17.87*</td>
<td>.98</td>
<td>.06</td>
<td>.02</td>
<td>.099</td>
<td>.05</td>
<td>Adequate</td>
</tr>
<tr>
<td>Affect as Information Model</td>
<td>61.40***</td>
<td>.96</td>
<td>.07</td>
<td>.049</td>
<td>.09</td>
<td>.05</td>
<td>Adequate</td>
</tr>
<tr>
<td>Malle et al.’s Path Model of Blame</td>
<td>722.00***</td>
<td>.68</td>
<td>.15</td>
<td>.14</td>
<td>.16</td>
<td>.14</td>
<td>Poor</td>
</tr>
</tbody>
</table>

Note. *$p < .05$; **$p < .01$; ***$p < .001$; aWRMR; “Proposed Model – Information Processing” = the proposed model including information processing as mediating the relationship between anticipatory guilt and release decisions.
In sum, the proposed model of vicarious responsibility, emotion, and blame was the most explanatory model of decision-making when compared to other theoretical models of responsibility, emotion, and blame (see Table 4 for fit statistic comparisons across all decision-making models). However, there was (again) no evidence of temporal contiguity influencing parole decision-making.

**Temporal Contiguity and Punitiveness**

To further investigate the non-significant impact of temporal contiguity on decision-making, as proposed in the third purpose of the study, temporal contiguity conditions were compared against a true control condition to assess whether it was possible that a parolee committing a crime could have an effect on a parole board member’s decision-making. To test this final assertion, individuals’ punitiveness in their subsequent release decisions were compared across the four conditions including the three temporal contiguity conditions (i.e., 2 days, 2 months, and 2 years) and the control condition in which the inmate released in the initial decision did not commit a crime after release. A univariate analysis of variance via general linear modeling in SPSS 22.0 was used to assess these potential differences.

The overall model was significant, $F(3, 422) = 9.347, SE = .699, p < .001$. Mean differences for each condition were analyzed and individuals in the control (i.e., no crime) condition reported higher release recommendations ratings compared to individuals in the 2 days condition, $M_{diff} = .45, SE = .12, p < .001$, the 2 months condition, $M_{diff} = .49, SE = .11, p < .001$, and the 2 years condition, $M_{diff} = .55, SE = .12, p < .001$. Therefore, it is apparent that whether or not a parolee commits a crime has more of an influence on subsequent parole decisions compared to how long after release the parolee commits the crime (see Table 5 for group means and 95% confidence intervals). For a complete list of hypotheses and whether
or not they were supported by the data, see Table 6.

Table 5.

Mean Differences in Subsequent Parole Release Decisions across Temporal Contiguity Conditions

<table>
<thead>
<tr>
<th>Condition</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control (i.e., no crime)</td>
<td>3.34(^a)</td>
<td>.69</td>
<td>100</td>
</tr>
<tr>
<td>2 Years</td>
<td>2.79(^b)</td>
<td>.90</td>
<td>108</td>
</tr>
<tr>
<td>2 Months</td>
<td>2.85(^b)</td>
<td>.81</td>
<td>121</td>
</tr>
<tr>
<td>2 Days</td>
<td>2.90(^b)</td>
<td>.93</td>
<td>97</td>
</tr>
</tbody>
</table>

Note. Mean values with subscripts that differ are significantly different at \(p < .05\).

Table 6.

Hypotheses and Indications of Support from the Data

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Hypothesis</th>
<th>Data Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hypothesis 1</td>
<td>Difference in perceptions of PB between public and PB members</td>
<td>Supported</td>
</tr>
<tr>
<td>Hypothesis 2</td>
<td>Vicarious responsibility modeled as a latent variable</td>
<td>Supported</td>
</tr>
<tr>
<td>Hypothesis 3</td>
<td>Main effect of temporal contiguity on vicarious responsibility</td>
<td>Not Supported</td>
</tr>
<tr>
<td>Hypothesis 4</td>
<td>Main effect of temporal contiguity on vicarious responsibility moderated by attributional complexity</td>
<td>Not Supported</td>
</tr>
<tr>
<td>Hypothesis 5a</td>
<td>Main effect of vicarious responsibility on anger for public</td>
<td>Partially Supported</td>
</tr>
<tr>
<td>Hypothesis 5b</td>
<td>Main effect of vicarious responsibility on guilt for parole</td>
<td>Partially Supported</td>
</tr>
<tr>
<td>Hypothesis 6</td>
<td>Main effect of vicarious responsibility on emotion moderated by counterfactual thinking</td>
<td>Not Supported</td>
</tr>
<tr>
<td>Hypothesis 7</td>
<td>Effect of temporal contiguity on emotion mediated by vicarious responsibility</td>
<td>Not Supported</td>
</tr>
<tr>
<td>Hypothesis 8</td>
<td>Main effect of temporal contiguity on blame</td>
<td>Not Supported</td>
</tr>
<tr>
<td>Hypothesis 9</td>
<td>Main effect of guilt and anger on blame</td>
<td>Supported</td>
</tr>
<tr>
<td>Hypothesis 10</td>
<td>Effect of emotion on blame moderated by need for affect</td>
<td>Not Supported</td>
</tr>
<tr>
<td>Hypothesis 11</td>
<td>Effect of temporal contiguity on blame mediated by vicarious responsibility and emotion with moderation paths</td>
<td>Partially Supported</td>
</tr>
<tr>
<td>Hypothesis 12a</td>
<td>Effect of temporal contiguity on blame mediated by Shaver’s (1985) predictor model of responsibility</td>
<td>Not Supported</td>
</tr>
<tr>
<td>----------------</td>
<td>------------------------------------------------------------------------------------------------</td>
<td>---------------</td>
</tr>
<tr>
<td>Hypothesis 12b</td>
<td>Effect of temporal contiguity on blame mediated by Shaver’s (1985) latent model of responsibility</td>
<td>Not Supported</td>
</tr>
<tr>
<td>Hypothesis 13a</td>
<td>Effect of temporal contiguity on blame mediated by Shultz et al.’s (1987) predictor model of responsibility</td>
<td>Not Supported</td>
</tr>
<tr>
<td>Hypothesis 13b</td>
<td>Effect of temporal contiguity on blame mediated by Shultz et al.’s (1987) predictor model of responsibility</td>
<td>Partially Supported</td>
</tr>
<tr>
<td>Hypothesis 14</td>
<td>Effect of temporal contiguity on blame mediated by vicarious responsibility and positive/negative affect</td>
<td>Not Supported</td>
</tr>
<tr>
<td>Hypothesis 15</td>
<td>Using regret in Hypothesis 11 instead of guilt</td>
<td>Not Supported</td>
</tr>
<tr>
<td>Hypothesis 16</td>
<td>Main effect of temporal contiguity on parole release</td>
<td>Not Supported</td>
</tr>
<tr>
<td>Hypothesis 17</td>
<td>Main effect of blame on anticipatory guilt</td>
<td>Supported</td>
</tr>
<tr>
<td>Hypothesis 18</td>
<td>Main effect of anticipatory guilt on parole release</td>
<td>Supported</td>
</tr>
<tr>
<td>Hypothesis 19</td>
<td>Main effect of anticipatory guilt on parole release moderated by information processing</td>
<td>Not Supported</td>
</tr>
<tr>
<td>Hypothesis 20</td>
<td>Main effect of temporal contiguity on parole release mediated by vicarious responsibility, guilt, blame, and anticipatory guilt</td>
<td>Partially Supported</td>
</tr>
<tr>
<td>Hypothesis 21</td>
<td>Main effect of temporal contiguity on parole release mediated by Shaver’s (1985) and Gailey and Falk’s (2008) model of responsibility and blame</td>
<td>Not Supported</td>
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<tr>
<td>Hypothesis 22</td>
<td>Main effect of temporal contiguity on parole release mediated by Shultz et al.’s (1987) model of vicarious responsibility, emotion, and blame</td>
<td>Not Supported</td>
</tr>
<tr>
<td>Hypothesis 23</td>
<td>Main effect of temporal contiguity on parole release mediated by vicarious responsibility, positive and negative affect, and blame</td>
<td>Not Supported</td>
</tr>
<tr>
<td>Hypothesis 24</td>
<td>Using regret in Hypotheses 20 and 22 instead of guilt</td>
<td>Not Supported</td>
</tr>
<tr>
<td>Hypothesis 25a</td>
<td>Malle et al.’s (2014) path model of blame</td>
<td>Not Supported</td>
</tr>
<tr>
<td>Hypothesis 25b</td>
<td>Main effect of Malle et al.’s (2014) path model of blame on parole release</td>
<td>Not Supported</td>
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Chapter 11: Discussion

Overall, the current research attempts to address whether emotional reactions to crimes committed by inmates after being released on parole influence blame toward parole board members for these crimes and parole board members’ subsequent parole release decisions. New theoretical models of vicarious responsibility and blame were proposed to account for mechanisms that might explain the extent to which emotions relate to the public’s perceptions of the parole board’s blameworthiness and the parole board’s perceptions of blameworthiness and subsequent decisions. The current research provides analyses that allow researchers to address specific research questions regarding the relationships between attributions of responsibility, emotion, blame, and parole release decisions. In the following sections, the main purposes of the research will be discussed in the context of the study’s results followed by practical and theoretical implications for the fields of social psychology and parole decision-making.

Main Purposes

The three main purposes of this research are discussed as they relate to the importance and significance of the results. Each purpose is outlined, addressed, and expanded upon in the context of the study’s findings.

Vicarious responsibility. The first purpose of this research was to test a new model of attributions of vicarious responsibility from the perspective of the public and parole board. Understanding situations in which vicarious responsibility might be attributed to an individual is relatively unacknowledged in the literature. Some research addresses or tests specific components of vicarious responsibility models (e.g., Brank et al., 2011; Shultz et al., 1987), but there does not seem to be any research that tests any major theoretical models of
vicarious responsibility in the literature. In fact, in personal communication with Thomas Shultz, author of the only proposed vicarious responsibility model in the literature to date, he mentioned that he has not continued in any research on modeling vicarious responsibility since around the time of his 1987 article (T. S. personal communication, March 20, 2014).

There has been some work on “vicarious liability” in the legal field (Bell, 2013; Sturley, 2010), but much of the social psychological theoretical contributions on responsibility have involved non-vicarious responsibility and blame (e.g., Shaver, 1985; Shultz & Schleifer, 1983; Weiner, 1995; Malle et al., 2014). Vicarious responsibility has assumed the role of an “exception” rather than a rule. In Shaver’ (1985) book on responsibility and blame, he suggests that vicarious responsibility is an exception and rare by referencing Shultz and Schleifer’s (1983) chapter, which states, “[referring to the idea that responsibility presupposes causation] one notable exception to this relationship […] concerns the notion of vicarious responsibility […] however, it seems to us that such cases of responsibility without causation are quite rare and that the basis for their justification remains obscure” (p. 53). Similarly, in Malle et al.’s (2014) article on the path model of blame, he describes vicarious blame (assumed to reflect vicarious responsibility) as an atypical event that does not necessarily violate causality, and is causal in nature because it conceptualizes cause by neglect. Across many of these major theoretical works on responsibility, vicarious responsibility receives little attention and is rarely treated as a completely different construct requiring a theoretical model separate from non-vicarious responsibility.

The current research treated vicarious responsibility as a unique construct, modeled differently than traditional models of non-vicarious responsibility and then compared the proposed model of vicarious responsibility to these other models. In doing so, the best fitting
model of vicarious responsibility was uniquely conceptualized as a latent variable defined by dimensions of (role) responsibility, accountability, answerability, and preventability.

The responsibility dimension characterized the extent to which an individual was considered to be responsible for the outcomes of another individual’s actions. In this research and model of vicarious responsibility, a parole board was considered to be vicariously responsible for the parolee that they released. This dimension specifically links the parole board’s actions to the parolee’s actions in a directed way. This dimension also ensures that vicarious responsibility is measuring a form of ‘responsibility,’ at least to some extent, rather than a completely different construct. Much discussion on responsibility proposes different typologies of responsibility such as causal responsibility, moral responsibility, and social responsibility (Malle, 2014; Shultz & Schleifer, 1983; Shaver, 1985; Weiner, 1995). The current use of measured responsibility likely resembles that of ‘role’ responsibility, defined by Hart (1968). A shared conclusion is that measuring responsibility alone is not sufficient in distinguishing the type of responsibility, and therefore, it must be measured in the presence of other concepts related to that particular responsibility construct. The current research did just this.

The accountability dimension characterizes the extent to which an individual is accountable for the actions of another individual. In this research specifically, results support the idea that the parole board is held accountable for the parolee’s actions in situations of vicarious responsibility. Because the parole board made the decision to release the parolee, with the assumption that the parolee was ready for release and fit to re-enter the community, the parole board must also assume the actions of the parolee to be reflective of their judgment. Parole boards might be judged upon the outcome quality of their decisions. In this
case a crime committed by a parolee, who is released early by a parole board, is credited to the parole board’s judgment. Similarly, if a parolee becomes a philanthropic success story, the parole board should be equally credited with this outcome, to an extent, because their decision of early release was confirmed by the parolee’s actions. However, it is also possible that negative and positive outcomes of parole decisions are treated differently because parole boards’ release recommendations are decided with more focus on the likelihood of recidivating of perceptions of future dangerousness but not necessarily the perceived likelihood of success. Therefore, the notion that parolees’ actions are reflective of the parole boards’ judgments likely describes a system of accountability, at least in regards to negative outcomes of parole decisions.

The answerability dimension characterizes the extent to which an individual is able to provide restitution or expected to answer for and explain a behavior or decision. Specifically, answerability describes the extent to which the parole board should have to answer or explain their decision. In this case, the parole board is not only responsible for the outcome and accountable for their judgment (based on the parolee’s behavior), but the parole board is expected to explain or justify their decision. This dimension conceptualizes the notion that the reasons for releasing an inmate who then commits a crime must be related to some sort of decision-making process. This decision-making process becomes scrutinized when that decision is perceived to result in a negative outcome. Thus, the decision-makers should be required to justify or explain their decision. Also, decisions that lead to negative outcomes might prompt the need for an explanation because the outcome contradicts the expectation, whereas decisions that lead to positive outcomes simply confirm the expectation and might not prompt the desire for an explanation.
Preventability characterizes the extent to which an individual is able to prevent another individual’s behavior. Preventability in this research describes the extent to which parole boards are able to prevent parolees’ crimes by not releasing them if they are likely to commit crimes. Preventability judgments are often reflected in other responsibility and blame theories (e.g., Malle et al., 2014). If an individual is considered able to prevent a negative outcome, changing the trajectory of the event, then the individual is ultimately linked to the outcome. This is especially true because the parole board’s single act of preventing an inmate from committing a crime after being released is simply to not release the inmate. This preventative measure is precisely why the parole board exists, to make release decisions consistent with maximizing parolees’ successes and minimizing their failures (recidivism).

Unique to vicarious responsibility in the parole decision-making context (and vicarious responsibility more generally), preventability incorporates the assumption that parole boards have access to privileged information regarding how an inmate has behaved, currently behaves, and will behave in the future. Based on this information parole boards should be able to accurately predict future behavior and deny release for dangerous inmates. This differs from individuals being held responsible for not preventing their runaway shopping cart from hitting a car or individuals being held responsible for not preventing an outcome by not directly evoking the outcome (e.g., a person can prevent a car crash by steering away from a swerving car).

This model supports the treatment of vicarious responsibility as a distinct and unique theoretical construct, separate from traditional non-vicarious responsibility. There are several distinguishable theoretical differences between vicarious responsibility and non-vicarious responsibility. First, vicarious responsibility does not pre-suppose causality. Several theorists
suggested this was the primary reason vicarious responsibility deviated, theoretically, from non-vicarious responsibility (e.g., Shaver, 1985). The results of this research support this assertion. Of all of the responsibility models tested in this research, no model that included causality fit the data. Therefore, individuals can and will be held responsible for events they did not directly cause, including events directly caused by others.

Second, vicarious responsibility does not presuppose intentionality. This is quite obvious in the data and in the literature. In the current study, models including intentionality were not predictive of blame or parole decisions; moreover, the models that were predictive of blame and decision-making were descriptive of instances in which the responsible party did not display intention. Although intentionality can lead to increased perceptions of vicarious responsibility (Shaver, 1985), there are easily identifiable circumstances in which negative outcomes are not intended by the vicariously responsible person. Parents do not intend for their kids to misbehave, organizations do not intend for their employees to steal from their clients, and parole boards do not intend for parolees to commit crimes. An example of supporting evidence for the exclusion of intention as a requirement might be the idea that preventability enables individuals involved in accidents to be held vicariously responsibility, and accidents by definition exclude intent (i.e., intent consistent with the outcome).

Third, vicarious responsibility is more decision-focused rather than person focused when compared to theories of non-vicarious responsibility. Non-vicarious responsibility theories often include person-oriented moral dimensions of responsibility, such as intention and moral wrongfulness. For instance, intention characterizes desire for an outcome or changing behavior to achieve a desired outcome (Malle et al., 2014; Shaver, 1985; Weiner,
Similarly, responsibility is perceived as also being directly related to perceived morality of the causal agent (Shaver, 1985; see also Guglielmo & Malle, 2010). In this case, responsibility is linked to the personal motivation and moral character of the decision-maker. Both intentionality and moral wrongfulness refer to a disregard of potential harm or negative outcome; in contrast, none of the dimensions of vicarious responsibility incorporate the internal motivations or the morality of the decision-maker. From the current data, it is apparent that theoretical models including person-focused dimensions, intentionality and moral wrongfulness, were not predictive of blame or decision-making in situations involving third party responsibility and blame. Moreover, theoretical models including accountability, preventability, and answerability were predictive of blame and decision-making using the current data. Although intentionality and moral wrongfulness might be relevant, they may not predict or determine attributions of vicarious responsibility.

Based on the results of this study, vicarious responsibility is characterized by attributions of responsibility, preventability, accountability, and answerability. These results support the proposed model of vicarious responsibility, emphasizing the construct’s distinctiveness and highlighting the importance in comparing vicarious responsibility to non-vicarious responsibility. These important differences likely relate to the exclusion of intentionality as a necessary characteristic of responsibility and the lack of focus on the moral character of the decision-maker.

**Blame.** The second purpose of this research was to incorporate the proposed model of vicarious responsibility into a larger theoretical model of blame, or ‘vicarious’ blame. This model of blame specifically addresses blame toward individuals held vicariously responsible or individuals blamed for others’ behaviors not directly related to their own. In the current
proposed theoretical model, blame presupposes both vicarious responsibility and emotion. Specifically, the two models of blame that best fit the data included vicarious responsibility, and one of the models also included emotion, suggesting that instances of blame toward a third party I best explained by vicarious responsibility and potentially emotion. The inclusion of emotion, however, is not unique in the blame literature. Both Alicke (2008) and Weiner (1995) suggest that blame arises from attributions of responsibility and a motivating emotional state.33

Two particular emotions often incorporated in this research are guilt and anger (both measured in the current research) because of their motivational aspects. Anger motivates vengeance or retaliation and guilt motivates reparative or restorative behaviors. Although these types of motivations differ, they both encourage a responsive action. Thus, when individuals’ perceptions of responsibility lead to a heightened emotional state, individuals’ might seek an outlet for these emotions. Blame offers this type of outlet in the form of a social sanction (Alicke, 2008). It was theorized that blame might be considered an “act” or “behavior” associated with emotion-based motivation. When a person experiences anger, the act of blaming others might be considered a form of social vengeance. When experiencing guilt, blaming one’s self can be a form of social admission of fault or responsibility. The current study measured emotion as a latent variable defined by guilt and self-directed anger for parole board members and defined by anger and other directed guilt for the public. For parole board members, this partially supports Weiner’s (1995) argument that self-directed anger is guilt or an indicator of guilt. However, Ellsworth and Tong (2006) argue that self-

33 The authors also refer to an emotional state as an “affective state;” however, their description of affect resembles the current description of emotion; thus, the language “emotion” is used for consistency.
directed anger and guilt are separate emotions, though they have several overlapping
features. It is possible that measuring self-directed anger and guilt as that same construct
could simply be measuring the overlapping features of these two emotions, especially since
these features are similar to (and many are the same) many of the responsibility dimensions.
For example, overlapping features identified by Ellsworth and Tong (2006) include
controllability/preventability, perceptions of personal cause, and a desire to remedy the
situation. Another possibility might be that both of these emotions were experienced
simultaneously and measuring them both as a latent construct is simply measuring a mixed
emotional state. However, the current results cannot speak to that inference specifically but it
is quite possible that it could be the case.

Emotion might also act as a targeting mechanism, motivating an individual to find a
blameworthy person. In the current study, increased emotion led to increased blame. In this
case, once responsibility is established, blame might follow. Those found responsible are
more likely to be blamed. However, if responsibility is established, and it leads to a
heightened emotional state, the motivation to find a blameworthy party increases even more;
thus, individuals who experience this heightened emotional state might place more blame on
the responsible party compared to those who experience less emotion or no emotion at all.

In the current study, for parole board members, both vicarious responsibility and
emotion were positively related to blame, as hypothesized. However, for the public, emotion
attenuated blame, though vicarious responsibility was positively related to blame. This was
quite perplexing. However, because measurement invariance was not well established, these
differences cannot be attributed to the group, but instead to how each construct was measured
or manifested within each group. One possible explanation for these differences might be that
for the public, responsibility predicts blame, but emotion is only a residual of this process and not a part of the blaming process. This would not support the proposed model of blame but could explain why emotion is not related to increased blame. Rather than responsibility predicting blame, mediated by emotion, it is possible that responsibility independently predicts emotion and blame.

A second explanation for these discrepant results might be that increased emotion is the apex of the negative reaction of the public. Individuals who attribute responsibility to the parole board and experience anger might essentially expend the same reactionary resources as those who hold the parole board responsible and blame them. In this case, individuals who attribute responsibility and experience anger might attribute less blame because they expended their resources on emotion. Individuals who attribute responsibility and blame might similarly be less likely to experience anger because their reactionary resources were spent on the blaming process (assigning a social sanctioning role to blame). If this were to be true, one might suggest that individuals either hold parole boards responsible and blameworthy or they hold them responsible and experience anger. However, this is only speculation and has no theoretical backing.

A third potential explanation as to why increased anger led to decreased blame might be that anger led the public to become critical of the parole board, resembling the approach motivational aspect of anger. By being critical, the public might have examined the particular release decision, resulting in increased inquiry, perspective taking, and potentially empathy toward the parole board, especially if the public discovered and concluded that the parole board was not at fault (see de Vos, van Zomeren, Gordijn, & Postmes, 2013). In sum, these differences should be explored in future research and follow-up studies.
Based on the current study’s results, emotion played an important role in vicarious blame. However, when compared to other models of blame, Shultz et al.’s (1987) model fit the data well, also. Purely cognitive explanations of blame might be equally informative as those which include emotion. Therefore, blame might not presuppose emotion but rather it might be sensitive to its effects. Although the comparison between the proposed model and Shultz et al.’s (1987) model of vicarious responsibility and blame might suggest that the precise role of emotion in blame is unclear, it points to a more obvious and quite compelling finding, which is that the only two models of vicarious blame that fit the data were models that included vicarious responsibility. From this finding, two important theoretical contributions emerge.

First, a separate theoretical model of vicarious responsibility is essential in understanding it as a unique construct and in understanding its relationship with blame. Without separating vicarious responsibility from non-vicarious responsibility, the relationship between responsibility and blame more generally, will remain unclear. Further re-defining these constructs (vicarious and non-vicarious responsibility) as separate will allow for more accurate predictions of what types of situations lead to attributions of responsibility and blame.

Second, the results of the current research highlight the importance of incorporating responsibility into a model of blame. Malle et al. (2014) omit responsibility from their model because responsibility “is often confounded with other phenomena [including] wrongfulness, causality, foreknowledge, and intentionality” (p. 158). Malle et al. (2014) further argue that responsibility is less sensitive to changes in various judgments (i.e., intentionality, foreseeability, and justification) compared to blame, and therefore, a model of blame should
include more precise constructs instead of a general responsibility construct. While the argument is well supported and a rather accurate portrayal of several avenues of past research (see also Shaver & Drown, 1986 for a similar discussion), the confounding phenomena listed by Malle et al. (2014) are at the pinnacle of what distinguishes vicarious responsibility from non-vicarious responsibility. This begs the thought of whether responsibility becomes more relevant in blame when not including the confounding phenomena for which it was excluded in the first place. By understanding differences in responsibility types (vicarious and non-vicarious responsibility), situations related to blame judgments might be better predicted. This further supports the need to model responsibility in models of blame.

**Decision-making.** The third purpose of the current research was to test the effects of responsibility, blame, emotion, and information processing on parole decisions. Findings from this research suggest that the proposed model of responsibility and blame predicted subsequent parole release decisions consistent with the hypotheses. Parole board members who held themselves vicariously responsible for the results of previous release decisions were less likely to release inmates in subsequent parole release decisions, and this relationship was mediated by experienced emotion, blame, and anticipatory emotion. Individuals who held themselves more vicariously responsible also experienced more guilt and blamed themselves more. Blame then predicted increased anticipatory guilt related to future decisions, and anticipatory guilt predicted more punitive subsequent parole release decisions (lower ratings of release). Moreover, it is possible that anticipatory guilt might predict punitive release decisions because increased anticipatory guilt predicts experiential processing, which in turn predicts punitive decision-making. Thus, parole board members who experience emotion might process information differently when making decisions,
leading them to more conservative and less likely to release inmates on parole. However, information processing state measures did not all consistently predict punitive decision-making, and this particular finding should be incorporated in future research.

Two major theoretical contributions are made based on these findings. First, parole decision-making is a process that includes both emotion and cognition. Consistent with many emotion and cognition theories (i.e., Epstein, 2008; Slovic & Peters, 2006) parole board members’ perceived responsibility and blame for the results of past decisions interact with their experienced and anticipatory emotion when making subsequent release decisions. Parole board members might be directed to make release decisions specifically based on release criteria given to them by prisons, case workers, and parole administration, but in certain circumstances, this process might be altered based on their current emotional state. Though parole board members are still able to identify differences in risk across inmates, the general likelihood of release might decrease when incorporating thoughts related to past release decisions potentially because they process information related to release criteria emotionally rather than rationally and systematically.

Second, vicarious responsibility is related to vicarious guilt, which these findings suggest predicts behavior similarly to non-vicarious guilt. Although parole board members did not actually commit the crimes themselves, they experienced vicarious guilt as a result of somebody else’s actions. This experience of vicarious guilt then led to making more conservative, or punitive release decisions. These decisions are considered reparative or restorative in nature because they offset the negative effects of the prior decision directly related to the experience of vicarious guilt. Thus, not releasing inmates is a way to restore the situation and alleviate guilt that resulted from releasing an inmate who committed a violent
One important note to make about vicarious guilt is that it emphasizes the social aspect of guilt. Guilt typically results from a personal wrongdoing; however, vicarious guilt involves a personal emotional response to an impersonal behavior.\textsuperscript{34} Moreover, guilt typically arises from personal responsibility for an outcome necessitated by one’s behavior or action. Yet, in contrast, vicarious guilt describes the experience of guilt as a result of another person’s behavior that might not be predictable or controllable. Both non-vicarious guilt and vicarious guilt motivate individuals to engage in similar types of behaviors. This includes anticipatory guilt as well. By experiencing vicarious guilt, individuals might use this past experience and make future decisions based on the anticipation of experiencing vicarious guilt. The appraisal theory proposes that vicarious guilt might predict behavior consistent with guilt and anticipatory guilt, and the current study’s findings provide evidence to support this (Tangney et al., 2007).

**Theoretical Implications**

The current study tested several hypotheses based on various attribution, emotion, and decision-making theories. The results from the study suggest that several theories were supported by the data; however, other theories were not supported. These findings highlight the need to examine their implications within the broader theoretical literature.

**Temporal Contiguity and Counterfactual Thinking.** The current results did not support the notion of temporal contiguity and its effects on attributions of responsibility as suggested in previous literature (Buehner & May, 2003; Kelley & Michela, 1980; Oakes &

\textsuperscript{34} Impersonal in this case means not personally caused.
Kannass, 1999; Shanks et al., 1989). When assessing temporal contiguity conditions, there were no differences in blame or decision-making. The event of an inmate committing a crime after release, compared to not committing a crime, appeared more important than how long after release the crime was committed. It is possible that using an extremely violent crime could have reduced the effect of temporal contiguity. A rape and murder might evoke responsibility and guilt no matter the time of its occurrence, but perceived responsibility regarding a milder crime might rely more heavily on the time between release and the crime.

Also, the current research did not support the theory of counterfactual thinking and emotion. Counterfactual thinking did not increase negative emotional reactions. It is possible that because the counterfactual thought process was rather simple (i.e., the decision to deny parole was an overly obvious answer), the number of counterfactual thoughts beyond denying parole were not influential. However, the current research does support the importance of counterfactual thinking in models of blame as highlighted in Alicke’s (2000) model of blame. The absence of support for counterfactual thinking could also be a result of how counterfactual statements were measured. It is possible that the number of counterfactual statements might related to emotion differently than other ways to measure counterfactual thinking, such as degree of counterfactual thinking or temporal closeness of counterfactual antecedent. Therefore, counterfactual thinking might not be supported due to the lack of methodological rigor in measuring counterfactual statements.

**Attributions.** The current research extends the attribution literature in two ways. First, it proposes one of the first comprehensive models of vicarious responsibility and vicarious blame and directly compares this model to other models established in the literature. In this comparison, traditional models of responsibility (Shaver, 1985; Gailey &
Falk, 2008) do not appear to accurately characterize instances of vicarious responsibility. Although many of the models (Malle et al., 2014; Shaver, 1985; Weiner, 1995) suggest that vicarious responsibility and vicarious blame can be explained using similar concepts used in traditional models of non-vicarious responsibility, this is potentially misleading.

Vicarious responsibility is defined by a substantially different set of theoretical dimensions (constructs). Similarly, vicarious blame is only predicted by vicarious responsibility and not any other model of responsibility. Theoretical models of blame and responsibility that suggest vicarious responsibility can be explained by the same, or similar, dimensions as non-vicarious responsibility or that responsibility is not independent of blame concepts might be misrepresenting the theoretical construct altogether.

Specifically, Shaver’s (1985) model does not accurately depict vicarious responsibility and blame. He acknowledges this in his work, but he suggests that vicarious responsibility might differ from non-vicarious responsibility in important ways (Shaver, 1985). The results of the current research suggest that vicarious responsibility and vicarious blame differ from their non-vicarious counterparts in that they are less reliant on causality, morality, and intention and more reliant on perceptions of preventability and the decision-maker’s basis for decisions.

Shultz et al. (1987) proposed that vicarious responsibility was primarily determined by perceptions of preventability or controllability. Expanding on their analysis of only preventability, this research conceptualized vicarious responsibility using their theoretical framework and including perceptions of responsibility, preventability, and controllability. This model of vicarious responsibility predicted blame quite well. It is possible that controllability and preventability both describe the same, or a similar, dimension, which is
also represented in the proposed model of vicarious responsibility; however, evidence supports Shultz et al.’s (1987) model and therefore it cannot be excluded as an inaccurate portrayal of the construct.

Lastly, because measurement invariance was not supported, the effects of perspective (parole board or public) on models of vicarious responsibility cannot be interpreted. Thus, there is no evidence to support or refute the actor/observer hypothesis (Jones & Nisbett, 1972). This might suggest, however, that responsibility is conceptualized completely differently based on perspective. More research is needed to better understand this result.

**Emotions.** Results suggest that parole board members use emotion as a resource when making parole release decisions, and this emotion influences decisions in predicted ways. Thus, this research supports the appraisal theory of emotion (Ellsworth & Scherer, 2003; Horberg et al., 2011; Keltner et al., 2007; Lazarus, 1991; Lerner & Keltner, 2000; Roseman, 1991; Smith & Ellsworth, 1985). Attributions of vicarious responsibility predicted guilt and anger, suggesting that appraisals of responsibility led to appraisal consistent emotions. Moreover, guilt then predicted appraisal consistent behaviors, punitive release decisions, which were considered to be restorative behaviors potentially re-balancing justice and repairing damage as a result of the previous parole release decision (Baumeister et al., 1994; de Hooge et al., 2011; Gelberg, 2002; Guthrie, 1999; Keltner et al., 2007; Loomes & Sugden, 1982; Roseman, 1991; Roseman et al., 1990; Smits & De Boeck, 2010).

As mentioned earlier, this research also contributes substantially to the literature regarding vicarious emotion (Tangney et al., 2007). Not only was the relationship between vicarious guilt and decision-making supported in this study, but it resembled the theoretical understanding and predictions of non-vicarious guilt. This might suggest that vicarious
emotion is just as influential and predictive of behavior as non-vicarious emotion and that vicarious emotion is no less potent. This also supports the appraisal tendency theory of emotion because similar appraisals of events that elicit guilt also elicited vicarious guilt, and vicarious guilt resulted in appraisal tendency related behaviors similar to guilt-related appraisal tendency related behaviors. Although only vicarious guilt was tested in this research, future research should analyze other emotions that are potentially experienced vicariously. These types of experiences might capture the feelings associated with statements such as, “I’m mad at that person too because of what they did to you (despite no immediate stake or relevance),” or, “I’m ashamed for you!”

Lastly, there was no support for the affect-as-information hypothesis. Models including general positive and negative affect states, although fitting the data in the decision-making model, did not support the notion that positive and negative affective states explain the relationships between vicarious responsibility, blame, and decision-making. This suggests that models including specific emotions better explained the relationships between vicarious responsibility, emotion, vicarious blame, and decision-making. This is likely due to the notion that general affective states typically reflect general moods in which the antecedents of the “feelings” are unclear. In the experimental paradigm used in this research, the emotional antecedents were explicitly clear, which might have been better explained by emotion-specific theories.

**Blame.** It was hypothesized that emotion is important when considering individuals’ blame judgments. Based on the results of the current study, emotion played a significant role in attributions of blame, which supports several theories that share this claim (Alicke, 2000; Weiner, 1985, 1995). Although vicarious responsibility directly predicted blame as well, this
relationship was partially mediated by emotion, suggesting that heightened emotion as a result of vicarious responsibility increases blame judgments.

In contrast, blame theories that do not incorporate emotion were not supported (Malle et al., 2014; Shaver, 1985), but this is most likely because they also did not include measures of vicarious responsibility. In Shaver’s (1985) theory, emotion is not really considered at all. This does not necessarily mean that excluding emotion is severely problematic (e.g., Shultz et al.’s [1987] model fit the data well and did not include emotion), but it does suggest that theories that exclude emotion do not fully encompass aspects significantly related to blame. Similarly, Malle et al.’s (2014) path model of blame excludes measured emotion in the model, but the authors do not exclude the potential influence of emotion. They claim that emotion is often associated with the social act of blaming, but in their model they considered social blame to be, “favoring thought over emotional intensity” (Malle et al., 2014, p. 171). In this case, they include emotion in the conceptualization of blame, but not measured in their model. These purely cognitive models of blame might be rather accurate of non-vicarious blame, however, vicarious blame models might be more reliant on emotion.

When considering the circumstances of vicarious responsibility and blame, it is highly likely that individuals attribute responsibility and blame to the causal party. In this case, parole board members likely attribute responsibility for the outcome of the parolee’s crime to the parolee. However, they also attribute it, in part, to themselves. These attributions of vicarious responsibility of the parole board might be less clear or less intense than attributions of responsibility of the parolee. For instance, if asking a person how responsible is the parolee and how responsible is the parole board, most likely the parolee will be held more responsible. This process likely reflects self-perceived responsibility as well. Therefore,
vicarious blame judgments might be more difficult to make when responsibility is less clear or less intense, but if attributing vicarious responsibility is coupled with heightened emotions, blame judgments might be easier to make. Emotion might have more of an influence in vicarious blame compared to non-vicarious blame. However, this is speculative and more research is needed to test these presumptions.

**Information Processing.** The results of this research suggest that increased anticipatory guilt could predict punitive decision-making through an increase in emotion or experiential processing. This supports several information processing theories (Loewenstein et al., 2001; Shultz & Schleifer, 1983; Slovic & Peters, 2006; Slovic et al., 2004). However, information processing plays a mediating role between anticipatory emotion and decision-making rather than a moderating role.

One reason that information processing might mediate the relationship between anticipatory emotion and decision-making (rather than moderating it) is because anticipatory emotion might actually determine the processing state, rather than the processing state simply qualifying the relationship between anticipatory emotion and decision-making. In this case, increased emotion would actually predict processing state, specifically processing information in an experiential manner because experiential processing is prompted by the relevance of past experience and emotion. Thus, parole board members who hold themselves responsible for parolees’ crimes and are emotionally affected by previous decisions would be more likely to engage in experiential processing. Without increased emotion, individuals might be more likely to process information rationally.

One important aspect of information processing to note, though, is that its effects appear to be sensitive to measurement. While established measures from the literature (i.e.,
the parking lot and stock trading scenarios [Epstein et al., 1992] and math problems [Guthrie et al., 2007]) were not significantly related to emotion and decision-making, processing states coded by the dependent variable values (i.e., consistency between release recommendation and risk level) did significantly relate to emotion and decision-making. This might be explained by the way these measures were presented on the questionnaire. Using the dependent variable to code information processing state might have captured information processing at the time of the release decisions. However, the stock, parking, and math problems were measured after the release decisions were made. If the release decision acted as a behavioral outlet for emotion and anticipatory emotion, then it is possible that individuals no longer experienced increased (anticipatory) emotion after making the release decisions; thus, individuals were less likely to report experiential processing after decision-making. Post-decision processing measures might have then been reflective of a different information processing state compared to the state during decision-making. Future research should attempt to better understand if and how information processing states can be consistently and accurately measured.

**Individual Differences.** In the current study, the proposed moderating effects of attributional complexity and need for affect were not supported. Moreover, the proposed model of vicarious responsibility and blame and the decision-making model both were robust and fit the data well even after accounting for individual differences. The hypothesized paths and indirect effects were still significant even after accounting for individual differences. In the blame model, no individual differences predicted blame. This was expected as there is little literature that suggest certain individual characteristics are related to assigning blame. However, in the decision-making model, several individual characteristics predicted parole
release decisions.

Personal attributions of crime predicted more punitive parole release decisions, or lower rating of release. This suggests that individuals who endorse the idea that people commit crimes because of who they are (e.g., criminal “mind,” criminal nature, or immoral) are less likely to release inmates on parole. This supports the idea that personal attributions of crime are linked to increased perceived dangerousness of criminals (see also Yelderman & Miller, in press). Also, attributional complexity and legal authoritarianism were positively related to more punitive decisions. Individuals who are better able to understand the origins of complex criminal behavior and individuals who hold the law as the highest authority were less likely to release inmates early. While this is consistent with legal authoritarianism literature, it is not consistent with attributional complexity literature, which suggests that attributional complexity is associated with less punitive decisions (Tam et al., 2008). It is possible that attributionally complex parole board members were better able to assess numerous determinants of recidivism, such as their release, environmental factors, and personal characteristics. Understanding how numerous aspects might influence likelihood of recidivism, parole board members might have then decided against release because of their knowledge of how various personal and social factors might lead to crime after release. Similarly, attributionally complex parole board members might be able to foresee numerous factors that increase the likelihood of recidivism, as a result of their own previous release outcomes, and therefore be more likely to deny parole in subsequent decisions.

Lastly, both approach and avoidance dimensions of need for affect predicted less punitive decisions. This was initially confusing because typically these dimensions differentially predict various phenomena (Maio & Esses, 2001). However, it is possible that
individuals who generally attend to their emotion more are more likely to release inmates onto parole, despite whether they approach or avoid emotion, but that is only speculation. More research is needed to be able to interpret this result confidently.

**Decision-making.** The current study revealed very interesting yet important implications for parole decision-making and general decision-making. First, this study provides evidence that emotion can enter parole decision-making in at least one regard, through reactions related to prior release decisions. Although this seems specific and narrow in scope, this implies that emotions *can be related* to parole release decisions. While the current research only supports one way in which emotion relate to parole decisions, the possibility that they relate in other ways is not only possible but likely plausible. Future research should examine various avenues in which emotions relate to parole release decisions.

Second, understanding the relationships between vicarious responsibility, emotion and parole decision-making can be applied to other legal decision-making platforms. Judges, police officers, and probationary committees also make decisions with similar implications. Judges decides punishment and sentencing decisions for defendants and juvenile court judges often use discretion when refusing to charge youth with certain crimes. Police officers use discretion during arrests and other similar situations. Probationary committees also use discretion when assigning sanctions or community discipline to offenders. For each of these decision-makers, the results of their discretionary decision might evoke emotional reactions, which could then influence subsequent decisions. Further, attributions of vicarious responsibility and emotion might also underlie non-legal decision-making such as employee hiring decisions. Utilizing the results from this study might provide potential explanations or
avenues for research, regarding these types of decision-making processes.

**Practical Implications**

The results of this research suggest that emotions related to prior decision outcomes are related to subsequent decisions. Because of this, there are significant implications for parole boards that if incorporated into current practice, might help alleviate any negative consequences that arise from these types of emotion-driven decisions. This, of course, assumes that making decisions based on emotional reactions to prior decision outcomes is a negative consequence in need of a remedy. Because parole decision-making is considered to be a rational process (e.g., one of the sections in Amos and Newman’s (1975) book on parole is titled, ‘A rational decision-making system’), emotion-driven decisions that result in a lower likelihood of release can be considered a negative consequence.

**Parole board member term limits and decision frequency.** Because parole board members’ emotions might influence their release decisions and because parole boards make as many as 22 parole recommendations each day (Nevada Board of Parole Commissioners Hearing Agenda, 2015), decreasing the number of parole decisions each day might effectively reduce time pressure, stress, and cognitive load. By decreasing the number of decisions per day, the time and effort spent on each case and decision might increase, improving the quality of the decision-making process. Though this research did not address cognitive load and stress directly, previous research suggests that making numerous parole decisions can lead to these types of situational constraints (Danzinger, Levav, & Avnaim-Pesso, 2011; Duffy & Smith, 2014; Hinson, Jameson, & Whitney, 2003; Macrae, Milne, & Bodenhausen, 1994; West-Smith, Pogrebin, & Poole, 2000). Taxing motivational and cognitive resources available to parole board members might then increase parole board
members’ likelihood of relying on extra-legal factors, specifically emotion unrelated to the inmate in which the decision is being made. Reducing the number of decisions, thus cognitive load and stress, might lead to more effortful decisions incorporating necessary information and reducing the reliance on extra-legal factors.

Shorter parole board term limits might also be an effective remedy. Shortening term limits may diminish the number of emotion-based decisions affecting parole releases for a single board member, thus reducing overall bias in release decisions. By shortening term limits, parole boards could minimize the impact of any single parole board member. This operates on the principle of decision frequency (reducing the number of decisions by a single board member in a single term necessarily reduces the number of biased decisions). However, because emotional states change relatively frequently and might only last between a few minutes and a few days, shortening term limits might not have much of an impact. If a parole board member is deeply regretful of a past decision and haunted by the guilt associated with the outcome for a long period of time, then shortening parole board member’s term might have the greatest impact.

**Rotating-panel parole boards.** Using different parole board members for each release decision or set of release decisions might help minimize the impact of a single parole board member. Some parole boards assign different parole board members each day to serve as the parole board representatives. This type of “rotating-panel parole board” would reduce the number of release decisions made by an individual who is potentially experiencing guilt due to prior release decision outcomes. Therefore, if an emotional event evokes guilt in the parole board panel involved, then the likelihood of that event affecting the following
subsequent decisions decreases if they are rotated out of the decision-making process.\textsuperscript{35}

**Emotion-reduction training.** If parole board members’ experiences of guilt predict a lower likelihood of releasing inmates during subsequent decisions, it might suggest that understanding this role of emotional influence on parole decision-making could inform intervention training practices. Creating a type of training that can reduce perceived personal responsibility or blame might also reduce guilt. This type of training might further reduce the impact of emotion on decision-making and eliminate the possibility of these emotional states negatively impacting future inmates’ chances for parole. Similarly, communicating the role of emotion in decision-making to parole board members, specifically as they relate to internalizing responsibility and blame and how they subsequently impact release decisions, might increase their awareness of emotions in their own decisions. In essence, being aware of these ‘biases’ might help eliminate them (Casey, Warren, Cheesman II, & Elek, 2012).

Another type of training that might help reduce the impact of emotion on parole decisions would include a special training session shortly after a high profile crime. This type of training might target parole board members who are likely to react emotionally to a parolee’s crime. Much like police debriefings, these trainings would act as a way to restructure the thinking of the parole board member with the purpose of reducing the impact of newly received information. These trainings might also serve as a reiteration of previous emotion-reduction trainings.

**Unintended consequences.** Due to the nature of vicarious guilt, which characterizes instances in which individuals feel guilty for another person’s actions, it is not too

\textsuperscript{35} The Nevada Parole Board has a system like this in which 2 parole commissioners (out of 5) attend parole hearings, and this group of 2 changes each day.
unreasonable to postulate that widespread media coverage of violent re-offenses of parolees in one jurisdiction might impact parole decision-makers in other jurisdictions. However, evidence is needed to support this claim before making any considerations as to how parole boards might address this issue.

**Prison overcrowding.** Discretionary release was associated with the goal of reducing prison overcrowding by allowing parole boards to release deserving inmates early and minimize the number of individuals in prison (Abadinsky, 2012; Alarid et al., 2008; Clear et al., 2009). However, if parole board members’ feelings of guilt lessen the likelihood of release for subsequent inmates, this might undermine the goal of discretionary release reducing the prison population. Thus prison overcrowding might remain a nationwide problem (King & Maur, 2002; Mackenzie, 2001; Paparozzi & Guy, 2009). Understanding the role of emotion in decision-making might help identify points of intervention to help parole decisions become less overly reliant on emotion when making release decisions. This would allow more deserving inmates to be released on parole, thus, reducing prison overcrowding.

**Limitations**

The current study contributed substantially to the social psychology field’s understanding of the relationships between responsibility, emotion, blame, and decision-making. However, there were several limitations to the research. First, one of the unique characteristics of this study was the inclusion of perspectives of both parole board members and the public. However, measurement invariance was not completely established and the ability to attribute group differences to the characteristics of the group or their perspective was compromised. Although this limits this particular aspect of the interpretation of the data, it does highlight an area in need of attention. Unsupported measurement invariance suggests
that the constructs of vicarious responsibility, emotion, and blame manifest differently within each group. This is likely a result of the different wordings of their questions, however, it might also lead to important theoretical concerns regarding the actor/observer hypothesis. While perceptual differences in reasons for behavior might be attributed to differences in perspective, it might also be attributed to differences in how constructs are conceptualized or defined.

A second limitation includes the way in which Malle et al. ’s 2014 model was measured and analyzed. The items used to measure the path model of blame were quite precise in their alignment with the theory. However, Malle et al., (2014) described each conceptual path as a yes/no answer, whereas the current research modeled blame using continuous measurements and latent variable modeling, neither of which fit the data nor supported the theory. Treating each component of the path model as a dichotomous yes/no decision might better represent the theory.

A third limitation is that the current experimental paradigm uses mock parole board members rather than real parole board members. Mock parole board members might differ from actual parole board members (see Lindsey & Miller, 2011). Actual parole board members who face the result of their actual decisions might experience more (or less) emotional influence on their decisions compared to mock parole board members. Samples (e.g., college students and community samples) have differed in their individual differences and outcome measures in the legal decision-making literature (McCabe, Krauss, & Lieberman, 2010; Miller et al., 2013; Wiener, Krauss, & Lieberman, 2010). Therefore, it is important to understand how sample type can limit generalizability in the current research.

A fourth limitation to this study is the use of a mock (fictitious) parole decision and
crime victim. Because the current research utilizes a mock parole decision-making paradigm, this method decreases consequentiality. Consequentiality refers to the notion that because these decisions are not actual parole decisions, they lack the realism of actual parole decisions and thus simplify rather complex processes, diluting effects of real world decisions (Bornstein, 1999). Consequentiality results from decreased verisimilitude (the appearance or resemblance of reality). Again, mock decision-making studies are not real; therefore, their verisimilitude is significantly lower than quasi-experimental approaches (Bornstein, 1999; Bornstein & McCabe, 2005). However, research does suggest that when evoking emotion, using stories that involve participating in the decision-process, results can mimic the effects of real emotion inducing stimuli (de Hooge et al., 2011). Also, when reading many of the open-ended responses at the end of the study, it seemed as if participants bought into the story. Many wanted to better understand why other parole board members voted the way they did (some even speculated about personality). They also wanted to speak with psychiatrists in the prison (prison psychiatrists were characters they completely made up and were not a part of the information provided to them) and then deliberate with the board. This might be suggestive of participants personifying the fake parole board characters.

A fifth limitation to this research is the lack of actual deliberation. Because the mock parole board members did not deliberate about the inmate, it is possible their decisions might only resemble initial judgments. Deliberation might have either attenuating or exacerbating effect on punitiveness in subsequent decisions.

A sixth limitation of the current research is the limited generalizability. Because none of the participants were actual parole board members, this research cannot be generalized to parole boards. However, this research does provide insight into how emotion and cognition
could impact parole board decision-making.

A seventh limitation to the research is the participants’ lack of formal parole board training. It is possible that any professional or formal parole training could equip parole board members with skills that prevent emotional reactions to outcomes of prior parole decisions. Similarly, formal training might prepare parole board members for various types of decision outcomes, de-sensitizing them to parolees’ actions after they are released. It is also possible that the personality types associated with being a parole board member differ from those of the public, and these personalities might also be associated with less intense emotional responses to negative outcomes of release decisions. Thus, emotional influences found in mock parole research might not actually occur in actual parole decision-making, safeguarding parole boards from emotional bias.

**Future Directions**

The first step in future research should be to replicate these findings. Specifically, the current models of vicarious responsibility and blame should be tested across decision-making contexts and different sample types. This will test the validity of the current theoretical propositions related to vicarious attributions and emotions. Moreover, future research should use similar experimental paradigms and test the effects of less violent crimes. This would help answer questions related to the severity of the outcome on perceived responsibility.

Future research should also include two critical steps to increase both validity and generalizability. First, future studies should include deliberation designs, allowing participants to deliberate about parole decisions similar to actual parole boards. In this study, many participants wanted to know why the other parole board members voted the way they did. This points toward the desire to deliberate and discuss parole decisions. Potential
deliberation effects have real world implications and provide another aspect of parole decision-making that might influence the ways in which emotion related to decision-making. Second, future research should include actual parole board members. Whether studying actual parole decisions or using actual parole board members in mock parole experiments, studying actual parole decision-makers can address limitations of this study pertaining to potential differences in actual parole board members and their formal training.

When proposing new theoretical models, an important step to take is to make changes to experimental contexts to see if the model is supported across contexts. Future research should include such manipulations in follow-up studies to see if and when the proposed model of vicarious responsibility is not supported. By attempting to falsify a theory, researchers can refine aspects of the theory in order to propose changes or additions. Future research should take this approach and manipulate various emotional and attributional antecedents to test the robustness of the model.

Future research should also attempt to remedy the unsupported measurement invariance result in this study. Although it might be attributed to the experimental design, this should be tested to see if there are any other explanations. One possible explanation is that the constructs simply manifest differently across groups.

Lastly, the proposed model of vicarious responsibility, blame, and emotion should be consistently tested against other theories of responsibility and blame across contexts and situations. Moreover, the proposed model of vicarious responsibility, blame, and emotion should be tested in situations involving non-vicarious responsibility, blame, and emotion. The proposed model should then be compared to theoretical models of non-vicarious responsibility, blame, and emotion in order to assess whether or not it is less predictive.
Chapter 12: Conclusions

The current study proposed a new theoretical model of vicarious responsibility to predict instances of vicarious blame and vicarious emotion in parole decision-making contexts. Overall, parole board members who perceive themselves as responsible for the crimes committed by parolees that they previously released (despite the length of time between the release and the crime) also experience more guilt. This guilt then increases self-blame and anticipatory guilt, which motivates parole board members to restore the situation by “balancing the scales of justice” and making more punitive release decision in the future. This implies the need for safeguards to be put in place for parole boards to minimize the potential influences of their emotional reactions to outcomes of past decisions.

The findings also supported the need for a comprehensive model of vicarious responsibility to predict instances of vicarious blame and vicarious emotion. In this study, a new model of vicarious responsibility was proposed, and evidence supported its ability to predict blame and parole decision-making better than many other models of responsibility and blame currently proposed in the literature. Although several theoretical models of responsibility and blame exist in the current literature, most involve attribution processes related to non-vicarious responsibility. This research revealed that non-vicarious responsibility models are inadequate in describing instances of vicarious responsibility and blame.

One finding in the current research, which was particularly striking, was that both vicarious responsibility and vicarious emotion both predict behavior in similar ways as their non-vicarious counterparts. This suggests that while the theoretical models and processes related to vicarious responsibility and vicarious emotion might differ from their non-
vicarious counterparts, their predicted effects are quite similar.

These findings also help direct future research to incorporate the critical difference in vicarious attributions and emotions in more general attribution and emotions theories. Traditionally vicarious responsibility, vicarious blame, and vicarious emotion have appeared in larger theoretical frameworks as footnotes, exceptions, rare instances, or subjected to theoretical constraints of non-vicarious contexts. This research highlights the importance of treating them as separate and perhaps unique theoretical constructs.

In sum, parole decision-makers have the important role of determining who should be released based on their readiness for return to the community. While this process was initially structured to be purely rational, it is possible that emotional associations with negative outcomes of past release decisions can influence future inmates’ chances for release. The implications of these results should be weighed heavily when interpreted in the greater contexts of prison overcrowding, increasing prison costs, community safety, bias in parole decision-making, and parole discretion.
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Appendix A.

7th Member Paradigm

You have been elected to serve on a parole board to help make parole release decisions that are best for the community, the inmate, and the prison. Please read the following information carefully.

John Post is eligible to be released on parole. You are a member of a parole board in charge of making the release decision for John Post that is best for the safety of the public, the rights of the individual, and the prison. The parole board that you are serving on consists of seven members. The other six members have already made their release decision. Three of them elected to release John Post and three of them elected not to release John Post. You have the deciding vote whether to release John Post or not.
Appendix B.

Public Condition Instructions

Instructions: You will read a news story about an event. It is important and necessary that you read the news story in its entirety so that you receive all of the information. You will then be asked several questions about the news story. At the end you will be asked about general beliefs and your demographics.
Appendix C.

**Initial Parole Decision**

**Parole Release Criteria**

Below is a list of information to use when making your parole release decision. Please note that generally, high risk offenders are involved in violent crimes (usually murders), have severe mental health issues, have low social support, have a long criminal history, and are high risks of harm to themselves and others. You may use any of the information available to make your decision. Please consider these factors when making this decision so that you make the best decision possible.

*It is imperative that you make accurate judgments and the most optimal decision as your decision will impact the life of the inmate and the lives of the community members.*

Name: John Post  
Sex: Male  
Race: Caucasian  
Education: High school graduate  
Age at time of incarceration: 40  
Current age: 45  
Prison sentence: 7 years  
Time spent in prison: 5 years  
Reason for Imprisonment: Aggravated Assault  
Volunteer work within the prison: Maximum allowed  
Signs/symptoms of mental illness: None  
Social/Family Support: High  
Prior arrests: None  
Risk of physical harm to self: Very low  
Risk of physical harm to others: Very low  
Potential risk to the community: Very low  
Risk of Dangerousness: Low
Appendix D.

**Response Scale for Initial and Subsequent Parole Release Decisions**

Please indicate the statement that best describes your recommendation for parole:

<table>
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<th>4</th>
<th>5</th>
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<tr>
<td></td>
<td>Definitely do not grant parole</td>
<td>Definitely grant parole</td>
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Appendix E.

**Parole Release Decisions Outcome Message**

This is what the participant will see after being screened into the mock parole board member condition by electing to grant parole in the initial parole release decision-making task:

Due to *your deciding vote* recommending that the inmate be released on parole because he is not a threat to the community, the correctional authority has elected to release John Post on parole immediately.
Appendix F.

**News Story**

This is what the participant will see after being told that inmate was paroled or if assigned to the “public” condition:

(If in the “public condition, this page will be preceded by a page that says “Please read the following news story.”)

Imagine 2 days/months/years have passed since you made the decision to release the inmate John Post on parole. Please read the story below.

**JOHN POST RAPES AND MURDERS NEIGHBOR’S DAUGHTER AFTER BEING PAROLLED FOR ONLY 2 DAYS/MONTHS/YEARS**

John Post, a Caucasian male, has been arrested for raping and murdering his neighbor’s daughter. He was a felon who had been released from prison 2 days/months/years prior to this crime.

Neighbor Jane Ellis says, “He was arrested for violence before, I can’t believe he committed this awful crime only 2 days/months/years after being released from prison. Now a sweet and innocent child suffered a terrible death.” Police say that John Post brutally raped his neighbor’s daughter, Ashley (age 6), and then strangled her to death in front of her two older brothers. Police also say that her brothers might have been able to help save her had they been a couple of years older.

Ashley’s mom was at work at the time of the crime. Her kids had called her yelling hysterically on the phone. She called the police and rushed home to find her two traumatized boys (ages 11 and 13) screaming and crying, and the police examining her daughter’s dead body. Post had already left the scene by the time the police arrived.
Appendix G.

**Blame**

Measured on a 5-point Likert scale:

1 – Not at all to blame
2
3
4
5 – Completely to blame

**Public condition:**

Please rate the extent to which you blame the parole board members for the child’s death as a result of their decision to release the inmate on parole.

**Mock parole board condition:**

Please rate the extent to which you blame yourself for the child’s death as a result of your decision to release the inmate on parole.
Appendix H.

**Subsequent Parole Release Decisions and Case Information**

Below is a list of information to use when making your parole release decision. Please note that generally, high risk offenders are involved in violent crimes (usually murders), have severe mental health issues, have low social support, have a long criminal history, and are high risks of harm to themselves and others. You may use any of the information available to make your decision. Please consider what is important when making this decision so that you make the best decision possible.

**Low risk**
Name: Scott Burleson
Sex: Male
Race: Caucasian
Age at time of incarceration: 39
Current age: 45
Prison sentence: 8 years
Time spent in prison: 6 years
Reason for Imprisonment: Aggravated assault
Volunteer work within the prison: Maximum allowed
Signs/symptoms of mental illness: None
Social Support: High
Prior arrests: None
Risk of physical harm to self: Low
Risk of physical harm to others: Very low
Potential risk to the community: Very low
Risk of Dangerousness: Low risk

**Moderate risk**
Name: Garrett Chandler
Sex: Male
Race: Caucasian
Age at time of incarceration: 35
Current age: 45
Prison sentence: 13 years
Time spent in prison: 10 years
Reason for Imprisonment: Assault and Armed robbery
Volunteer work within the prison: Above recommended amount
Signs/symptoms of mental illness: None
Social Support: Some
Prior arrests: One arrest for possession of drugs
Risk of physical harm to self: Very low
Risk of physical harm to others: Moderate
Potential risk to the community: Low to moderate
Risk of Dangerousness: Moderate risk

High risk
Name: Cody Malone
Sex: Male
Race: Caucasian
Age at time of incarceration: 28
Current age: 45
Prison sentence: 20 years
Time spent in prison: 17 years
Reason for Imprisonment: Attempted murder
Volunteer work within the prison: Minimum
Signs/symptoms of mental illness: None
Social Support: None
Prior arrests: Three including possession of a stolen firearm, evading in a motor vehicle, and assault
Risk of physical harm to self: Low
Risk of physical harm to others: High
Potential risk to the community: High
Risk of Dangerousness: Very high

All release decisions will be made on the same scale as the initial release decisions below:

Please indicate the statement that best describes your recommendation for parole:

<p>| | | | | | |</p>
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</tr>
</tbody>
</table>

Definitely do not grant parole

Definitely grant parole

Punitiveness will be determined by the extent to which they deny parole (score a 1). Also, participants who do not rate their release recommendations consistent with the appropriate risk levels in their punitiveness scores (lowest score for high risk; middle score for moderate risk; highest score for low risk), will be coded as processing information experientially.
Appendix I.

**Perceived Knowledge**

**Public condition:**

In the following questions, please rate your perceptions, and please be honest.

1. Please indicate the extent to which the parole board was aware of the potential consequences of releasing the inmate.

   1 – Not at all aware
   2
   3
   4
   5 – Completely aware

2. Please indicate the extent to which the parole board was able to foresee the harm of releasing the inmate.

   1 – Not at all able to foresee
   2
   3
   4
   5 – Completely able to foresee

3. Please indicate the extent to which the parole board *should* have foreseen the harm of releasing the inmate.

   1 – Not at all able to foresee
   2
   3
   4
   5 – Completely able to foresee

4. Did the parole board recognize the potential seriousness for releasing the inmate?

   1 – Did not recognize the potential seriousness at all
   2
   3
   4
   5 – Completely recognized the potential seriousness

5. Should the parole board have recognized the potential seriousness for releasing the inmate?
1 – Did not recognize the potential seriousness at all
2
3
4
5 – Completely recognized the potential seriousness

6. Did the parole board have all of the information possible to make the right parole release decision?

1 – Not at all
2
3
4
5 – Definitely

7. Should the parole board have had all of the information possible to make the right parole release decision?

1 – Not at all
2
3
4
5 – Definitely

Mock parole board member condition:

In the following questions, please rate your perceptions, and please be honest.

1. Please indicate the extent to which you, as a parole board member, were aware of the potential consequences of releasing the inmate.

1 – Not at all aware
2
3
4
5 – Completely aware

2. Please indicate the extent to which you, as a parole board member, were able to foresee the harm of releasing the inmate.

1 – Not at all able to foresee
2
3

4
5 – Completely able to foresee

3. Please indicate the extent to which you, as a parole board member, should have foreseen the harm of releasing the inmate.

1 – Definitely should not have foreseen
2
3
4
5 – Definitely should have foreseen

4. Did you, as a parole board member, recognize the potential seriousness for releasing the inmate?

1 – Did not recognize the potential seriousness at all
2
3
4
5 – Completely recognized the potential seriousness

5. Should you, as a parole board member, have recognized the potential seriousness for releasing the inmate?

1 – Did not recognize the potential seriousness at all
2
3
4
5 – Completely recognized the potential seriousness

6. Did you have all of the information possible to make the right parole release decision?

1 – Not at all
2
3
4
5 – Definitely

7. Should you have had all of the information possible to make the right parole release decision?

1 – Not at all
2
3
4
5 – Definitely
Appendix J.

**Perceived Preventability**

**Public condition:**

In the following questions, please rate your perceptions, and please be honest.

Please rate the extent to which you feel that the parole board was able to prevent the girl’s death.

1 – Could not have prevented at all
2
3
4
5 – Could have completely prevented

**Mock parole board member condition:**

In the following questions, please rate your perceptions, and please be honest.

Please rate the extent to which you feel that you, as a parole board member, were able to prevent the girl’s death.

1 – Could not have prevented at all
2
3
4
5 – Could have completely prevented
Appendix K.

Perceived Answerability

Public condition:

In the following questions, please rate your perceptions, and please be honest.

Please rate the extent to which you believe that the parole board should have to answer for the girl’s death.

1 – Should not have to answer at all
2
3
4
5 – Should definitely have to answer

Mock parole board member condition:

In the following questions, please rate your perceptions, and please be honest.

Please rate the extent to which you believe that you, as a parole board member, should have to answer for the girl’s death.

1 – Should not have to answer at all
2
3
4
5 – Should definitely have to answer
Appendix L.

Perceived Accountability

Public condition:

In the following questions, please rate your perceptions, and please be honest.

Please rate the extent to which you feel that the parole board is accountable for girl’s death.

1 – Not at all accountable
2
3
4
5 – Completely accountable

Mock parole board member condition:

In the following questions, please rate your perceptions, and please be honest.

Please rate the extent to which you feel that you, as a parole board member, are accountable for child’s death.

1 – Not at all accountable
2
3
4
5 – Completely accountable
Appendix M.

Perceived Controllability

Public condition:

In the following questions, please rate your perceptions, and please be honest.

Please rate the extent to which you feel that the parole board was in control of the parolee’s actions.

1 – Not in control at all
2
3
4
5 – Completely in control

Mock parole board member condition:

In the following questions, please rate your perceptions, and please be honest.

Please rate the extent to which you feel that you, as a parole board member, were in control of the parolee’s actions.

1 – Not in control at all
2
3
4
5 – Completely in control
Appendix N.

Perceived Causality

Public condition:

In the following questions, please rate your perceptions, and please be honest.

1. How responsible is the parole board for what happened to the girl?

1 – Not at all responsible
2
3
4
5 – Completely responsible

2. Is the parole board at fault for what happened to the girl?

1 – Not at all at fault
2
3
4
5 – Completely at fault

3. Could the parole board have avoided endangering the girl?

1 – Could not have avoided endangering the victim at all
2
3
4
5 – Could have completely avoided endangering the victim

4. Could anything else have prevented the occurrence?

1 – Not at all
2
3
4
5 – Definitely

5. Did the parole board cause the death of the girl?

1 – Not at all
2
3
4
Mock parole board member condition:

In the following questions, please rate your perceptions, and please be honest.

1. How responsible are you for what happened to the girl?
   1 – Not at all responsible
   2
   3
   4
   5 – Completely responsible

2. Are you at fault for what happened to the girl?
   1 – Not at all at fault
   2
   3
   4
   5 – Completely at fault

3. Could you have avoided endangering the girl?
   1 – Could not have avoided endangering the girl at all
   2
   3
   4
   5 – Could have completely avoided endangering the girl

4. Could anything else have prevented the occurrence?
   1 – Not at all
   2
   3
   4
   5 – Definitely

5. Did you, as a parole board member, cause the death of the girl?
   1 – Not at all
   2
   3
4
5 – Definitely
Appendix O.

**Perceived Intentionality**

**Public condition:**

In the following questions, please rate your perceptions, and please be honest.

1. Did the parole board intend for the inmate to victimize the girl after release?

   1 – Not at all
   2
   3
   4
   5 – Definitely

2. Could murdering the child be considered an accident?

   1 – Not an accident at all
   2
   3
   4
   5 – Definitely an accident

3. Did the parole board plan the parolee’s murder of the child in advance?

   1 – Did not plan at all
   2
   3
   4
   5 – Completely planned

**Mock parole board member condition:**

In the following questions, please rate your perceptions, and please be honest.

1. Did you intend for the parolee to victimize the girl after release?

   1 – Not at all
   2
   3
   4
   5 – Definitely

2. Could murdering the child be considered an accident?
1 – Not an accident at all
2
3
4
5 – Definitely an accident

3. Did you plan the parolee’s murder of the child in advance?

1 – Did not plan at all
2
3
4
5 – Completely planned
Appendix P.

Perceived Coercion

Public condition:

In the following questions, please rate your perceptions, and please be honest.

1. Do you think the parole board acted in their own will when deciding to release the inmate?

1 – Did not act in their own will at all
2
3
4
5 – Completely acted in their own will

2. Do you think other people influenced the parole board’s decision to release the inmate on parole?

1 – Not at all influenced by others
2
3
4
5 – Completely influenced by others

3. Was the parole board coerced into releasing the inmate on parole?

1 – Not at all coerced
2
3
4
5 – Completely coerced

4. Was something or someone else responsible for releasing the inmate on parole?

1 – No one else was responsible at all
2
3
4
5 – Someone else was completely responsible
Mock parole board member condition:

In the following questions, please rate your perceptions, and please be honest.

1. Do you think you acted in your own will when deciding to release the inmate?

   1 – Did not act in my own will at all
   2
   3
   4
   5 – Completely acted in my own will

2. Do you think other people influenced your decision to release the inmate on parole?

   1 – Not at all influenced by others
   2
   3
   4
   5 – Completely influenced by others

3. Were you coerced into releasing the inmate on parole?

   1 – Not at all coerced
   2
   3
   4
   5 – Completely coerced

4. Was something or someone else responsible for releasing the inmate on parole?

   1 – No one else was responsible at all
   2
   3
   4
   5 – Someone else was completely responsible
Appendix Q.

Perceived Moral Wrongfulness

Public condition:

In the following questions, please rate your perceptions, and please be honest.

1. Was it wrong for the parole board to release the parolee?

1 – Not wrong at all
2
3
4
5 – Completely wrong

2. Was the parole board acting morally when the parole board released the parolee? (reverse-coded)

1 – Not acting morally at all
2
3
4
5 – Completely acting morally

3. Was the parole board justified in releasing the parolee?

1 – Not justified at all
2
3
4
5 – Completely justified

Mock parole board member condition:

In the following questions, please rate your perceptions, and please be honest.

1. Was it wrong for you to release the parolee?

1 – Not wrong at all
2
3
4
5 – Completely wrong

2. Were you acting morally when you released the parolee? (reverse-coded)
1 – Not acting morally at all
2
3
4
5 – Completely acting morally

3. Were you justified in releasing the parolee?

1 – Not justified at all
2
3
4
5 – Completely justified
Appendix R.

Perceived Excuse

Public condition:

In the following questions, please rate your perceptions, and please be honest.

To what extent should the parole board be excused for their decision to release the inmate on parole?

1 – Not excused at all
2
3
4
5 – Completely excused

Mock parole board member condition:

In the following questions, please rate your perceptions, and please be honest.

To what extent should you be excused for your decision to release the inmate on parole?

1 – Not excused at all
2
3
4
5 – Completely excused
Appendix S.

Perceived Justification

Public condition:

In the following questions, please rate your perceptions, and please be honest.

To what extent is the parole board’s decision to release the inmate who then murdered the girl justified?

1 – Not justified at all
2
3
4
5 – Completely justified

Mock parole board member condition:

In the following questions, please rate your perceptions, and please be honest.

To what extent is your decision to release the inmate who then murdered the girl justified?

1 – Not justified at all
2
3
4
5 – Completely justified
Appendix T.

**Anger**

**Public condition:**

In the following questions, please rate your perceptions, and please be honest.

Please rate the extent to which you feel angry toward the parole board for the death of the girl as the result of their decision to release the inmate on parole.

1 – Not angry at all
2
3
4
5 – Extremely angry

**Mock parole board member condition:**

In the following questions, please rate your perceptions, and please be honest.

Please rate the extent to which you feel angry at yourself, as a parole board member, for the death of the girl as a result of your decision to release the inmate on parole.

1 – Not angry at all
2
3
4
5 – Extremely angry
Appendix U.

Guilt

Anticipated Guilt

Public condition:

In the following questions, please rate your perceptions, and please be honest.

Please rate the level of guilt you would feel if you were a parole board member and made a decision to release an inmate on parole who then committed another crime.

1 – Not guilty at all
2
3
4
5 – Extremely guilty

Mock parole board member condition:

In the following questions, please rate your perceptions, and please be honest.

Please rate the level of guilt which you would feel for making a decision to release an inmate on parole who then committed another crime.

1 – Not guilty at all
2
3
4
5 – Extremely guilty

Post-release Guilt.

Public condition:

In the following questions, please rate your perceptions, and please be honest.

What level of guilt do you think the parole board should feel for the death of the girl as a result of their decision to release the inmate on parole?

1 – Not guilty at all
2
3
4
Mock parole condition:

In the following questions, please rate your perceptions, and please be honest.

What level of guilt do you feel for the death of the girl as a result of your decision to release the inmate on parole?

1 – Not guilty at all
2
3
4
5 – Extremely guilty
Appendix V.

Regret

Anticipated Regret

Public condition:

In the following questions, please rate your perceptions, and please be honest.

Please rate the level of regret you would feel if you were a parole board member and made a decision to release an inmate on parole who committed a crime after release.

1 – Not regretful at all
2
3
4
5 – Extremely regretful

Mock parole board member condition:

In the following questions, please rate your perceptions, and please be honest.

Please rate the level of regret which you would feel for making a decision to release an inmate on parole who then committed another crime.

1 – Not regretful at all
2
3
4
5 – Extremely regretful

Post-release Regret

Public condition:

In the following questions, please rate your perceptions, and please be honest.

What level of regret do you think the parole board should feel for the death of the girl as a result of their decision to release the inmate on parole?

1 – Not regretful at all
2
3
4
Mock parole condition:

In the following questions, please rate your perceptions, and please be honest.

What level of regret do you feel for the death of the girl as a result of your decision to release the inmate on parole?

1 – Not regretful at all
2
3
4
5 – Extremely regretful
Appendix W.

Information Processing States Vignettes

Stock trading vignette:

Paul, who has an average income, owned shares in company A. During the past year he switched to stock in company B. He has just learned that the stock in company A has skyrocketed, and he would now be $100,000 ahead if he had kept his stock in company A.

George, who also has an average income, owns shares in company B. During the past year he considered switching stock to company A, but decided against it. He has just learned that stock A skyrocketed, and he would now be $100,000 ahead if he had made the switch.

Who do you think felt his action (or inaction) was more foolish, Paul or George?

1 - Paul felt more foolish
2
3
4
5 – They felt equally foolish
6
7
8
9 – George felt more foolish

Parking lot vignette:

Tom parked his new car in a parking lot that was half empty. His wife asked him to park in a spot near where she wanted to shop, but he parked, instead, in a spot closer to where he wanted to shop. As luck would have it, when he backed out after shopping, another car opposite him backed out at the same time, and both cars sustained damage over $1000.

Robert parked his new car in the same parking lot when there was only one parking place, so he took it. As luck would have it, when he backed out after shopping, another car opposite him backed out at the same time, and both cars sustained damage over $1000.

Who do you think his behavior contributed more to the likelihood of the accident, and therefore felt more foolish, Tom or Robert?

Responses are on a 9 point scale:

1 – Tom felt more foolish
2
3
They felt equally foolish
Robert felt more foolish
Appendix X.

Information processing state math problems:

Please answer the following questions:

1. A bat and a ball cost $1.10 in total. The bat costs $1.00 more than the ball. How much does that ball cost? (5 cents)
2. If it takes 5 machines 5 minutes to make 5 widgets, how long would it take 100 machines to make 100 widgets? (5 minutes)
3. In a lake, there is a patch of lily pads. Every day, the patch doubles in size. If it takes 48 days for the patch to cover the entire lake, how long would it take for the patch to cover half of the lake? (47 days)
Appendix Y.

PANAS – Positive and Negative Affect Schedule

PANAS Questionnaire (adapted)
This scale consists of a number of words that describe different feelings and emotions. Read each item and then list the number from the scale below next to each word. Indicate to what extent you feel this way right now, that is, at the present moment

1 – Very slightly or not at all
2 – A little
3 – Moderately
4 – Quite a bit
5 – Extremely

________ 1. Happy
________ 2. Sad
________ 3. Afraid
________ 4. Guilty
________ 5. Ashamed
________ 6. Surprised
________ 7. Proud
________ 8. Angry
________ 9. Determined
________ 10. Hopeful
Appendix Z.

Attributional Complexity


5-pt. Likert scale
1 if you strongly disagree with the statement
2 if you disagree with the statement
3 if you neither agree nor disagree
4 if you agree with the statement
5 if you strongly agree with the statement

Please rate the extent to which you agree or disagree with the following statements.

1. I don’t usually bother to analyze and explain people’s behavior.
2. Once I have figured out a single cause for a person’s behavior I don’t usually go any further.
3. I believe it is important to analyze and understand our own thinking processes.
4. I think a lot about the influence that I have on people’s behavior.
5. I have found that relationships between a person’s attitudes, beliefs, and character traits are usually simple and straightforward.
6. If I see people behaving in a really strange or unusual manner, I usually put it down to the fact that they are strange or unusual people and don’t bother to explain it any further.
7. I have thought a lot about the family background and personal history of people who are close to me, in order to understand why they are the sort of people they are.
8. I don’t enjoy getting into discussions where the causes for people’s behavior are being talked about.
9. I have found that the causes for people’s behavior are usually complex rather than simple.
10. I am very interested in understanding how my own thinking works when I make judgments about people or attach causes to their behavior.
11. I think very little about the different ways that people influence each other.
12. To understand a person’s personality/behavior I have found it is important to know how that person’s attitudes, beliefs, and character traits fit together.
13. When I try to explain other people’s behavior I concentrate on the other person and don’t worry too much about all the existing external factors that might be affecting them.
14. I have often found that the basic cause for a person’s behavior is located far back in time.
15. I really enjoy analyzing the reasons or causes for people’s behavior.
16. I usually find that complicated explanations for people’s behavior are confusing rather than helpful.
17. I give little thought to how my thinking works in the process of understanding or explaining people’s behavior.
18. I think very little about the influence that other people have on my behavior.
19. I have thought a lot about the way that different parts of my personality influence other parts (e.g., beliefs affecting attitudes or attitudes affecting character traits).
20. I think a lot about the influence that society has on other people.
21. When I analyze a person’s behavior I often find the causes form a chain that goes back in time, sometimes for years.
22. I am not really curious about human behavior.
23. I prefer simple rather than complex explanations for people’s behavior.
24. When the reasons I give for my own behavior are different from someone else’s, this often makes me think about the thinking processes that lead to my explanations.
25. I believe that to understand a person you need to understand the people who that person has close contact with.
26. I tend to take people’s behavior at face value and not worry about the inner causes for their behavior (e.g., attitudes, beliefs, etc.).
27. I think a lot about the influence that society has on my behavior and personality.
28. I have thought very little about my own family background and personal history in order to understand why I am the sort of person I am.
Appendix AA.

Need for Affect


5-pt. Likert scale

1 if you strongly disagree with the statement
2 if you disagree with the statement
3 if you neither agree nor disagree
4 if you agree with the statement
5 if you strongly agree with the statement

Please rate the extent to which you agree or disagree with the following statements.

1. If I reflect on my past, I see that I tend to be afraid of feeling emotions. (Avoidance)
2. I have trouble telling the people close to me that I love them. (Avoidance)
3. I feel that I need to experience strong emotions regularly. (Approach)
4. Emotions help people get along in life. (Approach)
5. I am a very emotional person. (Approach)
6. I think that it is important to explore my feelings. (Approach)
7. I approach situations in which I expect to experience strong emotions. (Approach)
8. I find strong emotions overwhelming and therefore try to avoid them. (Avoidance)
9. I would prefer not to experience either the lows or highs of emotion. (Avoidance)
10. I do not know how to handle my emotions, so I avoid them. (Avoidance)
11. Emotions are dangerous—they tend to get me into situations that I would rather avoid. (Avoidance)
12. Acting on one’s emotions is always a mistake. (Avoidance)
13. We should indulge our emotions. (Approach)
14. Displays of emotions are embarrassing. (Avoidance)
15. Strong emotions are generally beneficial. (Approach)
16. People can function most effectively when they are not experiencing strong emotions. (Avoidance)
17. The experience of emotions promotes human survival. (Approach)
18. It is important for me to be in touch with my feelings. (Approach)
19. It is important for me to know how others are feeling. (Approach)
20. I like to dwell on my emotions. (Approach)
21. I wish I could feel less emotion. (Avoidance)
22. Avoiding emotional events helps me sleep better at night. (Avoidance)
23. I am sometimes afraid of how I might act if I become too emotional. (Avoidance)
24. I feel like I need a good cry every now and then. (Approach)
25. I would love to be like “Mr. Spock,” who is totally logical and experiences little emotion. (Avoidance)
26. I like decorating my bedroom with a lot of pictures and posters of things emotionally significant to me. (Approach)
Appendix BB.

Counterfactual Thinking


Adapted from Roese 1994:
After negative events, people often have thought about how they should have taken certain actions that would have changed the course of events. For example, when getting hit in a parking lot, people often think to themselves “I should have parked somewhere else.” In the space below, please list some *specific actions* that, in retrospect, could have been taken to have improved the outcome of your parole decision.
Appendix CC.

**Rational-Experiential Inventory**

5-pt. Likert scale

1. I don't like to have to do a lot of thinking. (R)
2. I try to avoid situations that require thinking in depth about something. (R)
3. I prefer to do something that challenges my thinking abilities rather than something that requires little thought.
4. I prefer complex to simple problems.
5. Thinking hard and for a long time about something gives me little satisfaction.

**Need for Cognition**

1. I trust my initial feelings about people.
2. I believe in trusting my hunches.
3. My initial impressions of people are almost always right.
4. When it comes to trusting people, I can usually rely on my "gut feelings."
5. I can usually feel when a person is right or wrong even if I can't explain how I know
Appendix DD

Legal Authoritarianism (RLAQ – 23)


5-pt. Likert scale
- 1 if you strongly disagree with the statement
- 2 if you disagree with the statement
- 3 if you neither agree nor disagree
- 4 if you agree with the statement
- 5 if you strongly agree with the statement

Please rate the extent to which you agree or disagree with the following statements.

1. Unfair treatment of underprivileged groups and classes is the chief cause of crime.
2. Too many obviously guilty persons escape punishment because of legal technicalities.
3. Evidence illegally obtained should be admissible in court if such evidence is the only way of obtaining a conviction.
4. Search warrants should clearly specify the person or things to be seized.
5. No one should be convicted of a crime on the basis of circumstantial evidence, no matter how strong such evidence is.
6. There is no need in a criminal case for the accused to prove his innocence beyond a reasonable doubt.
7. Any person who resists arrest commits a crime.
8. When determining a person's guilt or innocence, the existence of a prior arrest record should not be considered.
9. Wiretapping by anyone and for any reason should be completely illegal.
10. Defendants in a criminal case should be required to take the witness stand.
11. All too often, minority group members do not get fair trials.
12. Because of the oppression and persecution minority group members suffer; they deserve leniency and special treatment in the courts.
13. Citizens need to be protected against excess police power as well as against criminals.
14. It is better for society that several guilty men be freed than one innocent one wrongfully imprisoned.
15. Accused persons should be required to take lie-detector tests.
16. When there is a "hung" jury in a criminal case, the defendant should always be freed and the indictment dismissed.
17. A society with true freedom and equality for all would have very little crime.
18. It is moral and ethical for a lawyer to represent a defendant in a criminal case even when he believes his client is guilty.
19. Police should be allowed to arrest and question suspicious looking persons to determine whether they have been up to something illegal.
20. The law coddles criminals to the detriment of society.
21. The freedom of society is endangered as much by overzealous law enforcement as by the
acts of individual criminals.
22. In the long run, liberty is more important than order.
23. Upstanding citizens have nothing to fear from the police.
Appendix EE.

**Locus of Control**


5-pt. Likert scale
- 1 if you strongly disagree with the statement
- 2 if you disagree with the statement
- 3 if you neither agree nor disagree
- 4 if you agree with the statement
- 5 if you strongly agree with the statement

Please rate the extent to which you agree or disagree with the following statements.

1. Sometimes I feel that I don't have enough control over the direction my life has taken.
2. Many times I feel as though I have little influence over what happens to me.
3. Most people don't realize the extent to which their lives are controlled by accidental happenings.
4. Getting a good job depends on being in the right place at the right time.
5. It is not always wise to plan too far ahead because many things turn out to be a matter of good and bad fortune anyhow.
6. It is difficult for people to have much control over the things politicians do in office.
7. This world is run by a few people in power, and there is not much the little guy can do about it.
8. As far as world affairs are concerned, most of us are the victims of forces we can neither understand nor control.
9. Most of the time I can't understand why politicians behave the way they do.
10. Who gets to be boss often depends on who was lucky to be in the right place first.
Appendix FF.

**Just World Beliefs**


5-pt. Likert scale
- 1 if you strongly disagree with the statement
- 2 if you disagree with the statement
- 3 if you neither agree nor disagree
- 4 if you agree with the statement
- 5 if you strongly agree with the statement

Please rate the extent to which you agree or disagree with the following statements.

1. I believe that, by and large, I deserve what happens to me.
2. I am usually treated fairly.
3. I believe that I usually get what I deserve.
4. Overall, events in my life are just.
5. In my life injustice is the exception rather than the rule.
6. I believe that most of the things that happen in my life are fair.
7. I think that important decisions that are made concerning me are usually just.
8. I think that basically the world is a just place.
9. I believe that, by and large, people get what they deserve.
10. I am confident that justice always prevails over injustice.
11. I am convinced that in the long run people will be compensated for injustices.
12. I firmly believe that injustices in all areas of life (e.g., professional, family, politics) are the exception rather than the rule.
13. I think people try to be fair when making important decisions.
Appendix GG.

Criminal Attributions Scale adapted from:


5-pt. Likert scale

1 if you strongly disagree with the statement
2 if you disagree with the statement
3 if you neither agree nor disagree
4 if you agree with the statement
5 if you strongly agree with the statement

Please rate the extent to which you agree or disagree with the following statements.

Personal
1. People who commit crimes deserve to be punished no matter what.
2. People who commit crimes are always at fault.
3. People who are too lazy to do things the right way turn to crime.
4. Most criminals deliberately choose to prey on society.
5. Criminals are people who don’t care about the rights of others or their responsibility to society.
6. Once a criminal, always a criminal.
7. Crime is a choice – a person’s circumstances are not to blame.
8. Most criminals commit crimes because they think they can get away with it.
9. Most criminals know fully well what they are doing when they break the law.
10. Most people who violate the law do so because they know crime pays.

Situational
11. Most criminals are abused as children.
12. Most criminals are emotionally disturbed.
13. Crime is mostly the product of a person’s circumstances and social contexts.
14. Some people are destined to become criminals due to the way they were born and raised.
15. At the root of much crime are early family problems.
16. Drugs and alcohol cause crimes because people can no longer control their behavior.
17. Who a person associates with has an influence on whether he or she will commit a crime.
18. Criminal behavior is often caused by mental illness.
19. Most criminals cannot avoid crime because of the situation they are in.
20. People who commit crimes are never at fault.
Appendix HH.

Demographics

Please fill out the following questions:

1. Age?

2. Are you male or female?
   1 – Male
   2 - Female

3. What is your race? (please choose)
   1 - White-Caucasian
   2 - Black-African-American
   3 - Hispanic-Latino
   4 - Asian-Pacific Islander
   5 - Other (please state__________)

5. What is the last level of education you completed? (please choose one)
   1 - Grade school or less
   2 - Junior High School
   3 - High School
   4 - College
   5 - Graduate school

7. What is your religious background?
   1 - Catholic
   2 - Eastern Orthodox: please specify (e.g., Greek orthodox) ______
   3 - Protestant: please specify (e.g. Baptist, Methodist) _____________
   4 - Jewish: please specify (e.g. orthodox, reformed)
   5 - Hindu
   6 - Buddhist
   7 - Muslim
   8 - Atheist
   9 - Agnostic
   10 - I believe in God, but do not have a particular affiliation.
   11 - Other (please specify__________)

10. What is your political affiliation? (Please circle)
    1 - Democrat
    2 - Republican
    3 - Independent
    4 - Other (please specify) ______
11. What is your political orientation?
   1 – Very conservative
   2 – Conservative
   3 – Moderate
   4 – Liberal
   5 – Very Liberal

12. Have you ever been arrested before? Yes/No

13. Have you ever worked in law enforcement before? Yes/No
Appendix II.

Social Desirability scale


Using the scale below as a guide, write a number beside each statement to indicate how true it is.

+ ______ + ______ + ______ + ______ + ______ + ______ + ______ +
1 2 3 4 5 6 7
not true somewhat very true

____ 1. My first impressions of people usually turn out to be right.
____ 2. It would be hard for me to break any of my bad habits. - R
____ 3. I don't care to know what other people really think of me.
____ 4. I have not always been honest with myself. - R
____ 5. I always know why I like things.
____ 6. When my emotions are aroused, it biases my thinking. - R
____ 7. Once I've made up my mind, other people can seldom change my opinion. - R
____ 8. I am not a safe driver when I exceed the speed limit. - R
____ 9. I am fully in control of my own fate.
____ 10. It's hard for me to shut off a disturbing thought. - R
____ 11. I never regret my decisions. - R
____ 12. I sometimes lose out on things because I can't make up my mind soon enough. - R
____ 13. The reason I vote is because my vote can make a difference.
____ 14. My parents were not always fair when they punished me. - R
____ 15. I am a completely rational person.
____ 16. I rarely appreciate criticism. - R
____ 17. I am very confident of my judgments
____ 18. I have sometimes doubted my ability as a lover. - R
19. It's all right with me if some people happen to dislike me.
20. I don't always know the reasons why I do the things I do.
21. I sometimes tell lies if I have to.
22. I never cover up my mistakes.
23. There have been occasions when I have taken advantage of someone.
24. I never swear.
25. I sometimes try to get even rather than forgive and forget.
26. I always obey laws, even if I'm unlikely to get caught.
27. I have said something bad about a friend behind his/her back.
28. When I hear people talking privately, I avoid listening.
29. I have received too much change from a salesperson without telling him or her.
30. I always declare everything at customs.
31. When I was young I sometimes stole things.
32. I have never dropped litter on the street.
33. I sometimes drive faster than the speed limit.
34. I never read sexy books or magazines.
35. I have done things that I don't tell other people about.
36. I never take things that don't belong to me.
37. I have taken sick-leave from work or school even though I wasn't really sick.
38. I have never damaged a library book or store merchandise without reporting it.
39. I have some pretty awful habits.
40. I don't gossip about other people's business.
Appendix JJ.

Self-reported Emotion

Please indicate the extent to which emotion played a role in your parole release decisions:

1 – Not at all
2 – A little
3 – Somewhat
4 – A lot
5 – Completely
Appendix KK.

**Manipulation Check**

How much time passed between *your/the parole* release decision and the crime committed by the parolee?

A. 2 Days  
B. 2 Months  
C. 2 Years

Please mark the answer that most accurately reflects what you did in this study:

A) Read about a parole decision  
B) Make a parole decision(s)
Appendix LL.

Probative Questions

General crime attitude questions:

Why did you release the Parolee in your initial decision? (open ended)

Who is to blame for the girl’s death? (open ended)

Are criminals able to be rehabilitated? (open ended)

1 – Definitely not able to be rehabilitated
2
3
4
5 – Definitely able to be rehabilitated

Why do people commit crimes? (open ended)

What should society do with people who commit crimes? (open ended)

In cases where parole boards release criminals who commit another crime shortly after release, do you agree that parole boards should be blamed?

1 – Strongly disagree
2
3
4
5 – Strongly Agree

Please elaborate on why you chose that option.

In cases where parole boards release criminals who commit another crime shortly after release, do you agree that parole boards should be given a social sanction (e.g., forced to make a public apology, newspapers criticize them, or the governor announces their mistake publicly)?

1 – Strongly disagree
2
3
4
5 – Strongly Agree

Please elaborate on why you chose that option.

When deciding whether you (or the parole board) were responsible for the girl’s death, what information did you incorporate into making that decision? (open ended)
Did you think a lot about the time between the release decision and the crime? (open ended)
Did it influence your decision? (open ended)
Appendix MM.

Map of Procedures

Public/Parole Condition

** Random Assignment

** Participation

** Public

** Read about parole board decision

** 2 days

** 2 months

** 2 years

** Responsibility, blame, emotion

** Attitude, PANAS, information processing traits/states, anticipated emotions and demographic measures

** Temporal Contiguity of Decision-Crime

** 2 days

** 2 months

** 2 years

** Responsibility, blame, emotion, counterfactual thinking

** Subsequent parole decisions

** Make a parole board decision

** 2 days

** 2 months

** 2 years

** True Control

** 2 days

** 2 months

** 2 years

** Mock Parole Board Member