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Situational and Individual Predictors of Violent Intentions: A Factorial Survey Approach

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SITUATIONAL AND INDIVIDUAL PREDICTORS OF VIOLENT INTENTIONS: A FACTORIAL SURVEY APPROACH

by

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DISSERTATION

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ABSTRACT

Though many criminological perspectives suggest that violence is the result of both individual and situational factors, the majority of criminological research focuses narrowly on individual-level factors. The current study contributes to the literature by utilizing a factorial survey design to examine both the independent and interactive effects of situational and individual predictors of violent behavioral intentions. This factorial survey presented college respondents with randomly generated versions of a hypothetical situation depicting interpersonal conflict and also gathered data about a variety of individual level factors known to predict violence. In order to improve the validity of the factorial survey method, the vignettes utilized in this study were based on those utilized in prior research and were pretested in a series of focus groups. The factorial elements of the vignette were inspired by psychological and qualitative sociological research on violence and aggression. Utilizing a sample size of 751 respondents, I estimate a series of multilevel regression models predicting violent behavioral intentions. Results suggest that both individual level and situational factors are important predictors of violent intentions. Specifically, physical provocation, the attention of an audience, and the presence of aggressive cues all significantly predicted violent intentions. Results also

suggest that, in addition to their separate relationships with violent intentions, individual and situational factors interact to predict violent intentions. After demonstrating the importance of situational factors in predicting violent intentions, I then demonstrate the utility of a situational perspective to criminology more broadly by providing situational tests of general strain theory and situational action theory. These situational tests demonstrate general support for both theoretical perspectives and highlight the importance of utilizing the situation as the unit of analysis for studying micro-social processes.

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CHAPTER 1: INTRODUCTION

Though sociologists and criminologists know a lot of the about the individual-level factors associated with violence, we know considerably less about the specific conditions under which individuals are most likely to resort to violence. Sociology and criminology have produced significant literatures examining between-person variation in violent tendencies. This research identifies individual or person-level traits (like self-control and hostility) and characteristics (like being male and having delinquent peers) that help explain why some people are more violent than others. While this helps us understand why some people engage in more violence than others, it does not help us understand when violent acts are likely to occur. This is an important point because even those individuals who have one or more of the traits or characteristics associated with violence do not engage in violence at all times and in all places. Violence, like all human interactions, is situational in nature. That is, people are more likely to engage in violence in certain situations than in others. In the current research, I examine the influence of both individual and situational predictors on individuals' perceived likelihood of resorting to violence in response to confrontation.

The term situation is admittedly vague. Here, I define situation as a micro-social interaction that occurs in a specific place at a specific time. Therefore, I make a distinction between situations and contexts. Context refers more broadly to the physical and social setting, while situations involve a temporal element of social interaction. Neighborhoods and bars are examples of contexts; a drunken neighbor spilling beer on your shirt at a neighborhood party or bar is an example of a situation. While research highlights the importance of larger contexts like neighborhoods (Sampson, Morenoff, and Gannon-Rowley, 2002), here I focus on the less studied role of situations.

Situations are less studied than individual-level factors or broader contexts (Collins, 2008: 2-23). To the degree that sociologists and criminologists are interested in explaining differences in violent tendencies across people, this emphasis on individual factors and broader contexts is justified and quite useful. However, this emphasis on individual factors and broader contexts is limiting to the degree that sociologists and criminologists are also interested in the understanding the processes through which specific violent events emerge. While both are important and provide a number of fruitful avenues for research, to date sociological and criminological research has focused significantly more attention on the factors that explain differences between people. This leaves an important gap in the sociological literature on violence. Situations reflect micro-social interactions and as such are intimately sociological. Further, situations are made up of social interactions between groups of people with varying perceptions and backgrounds. Understanding how these perceptions and backgrounds influence behavioral responses to situational stimuli can provide important insights into the dynamics of social interaction more generally. Further, studies of situational influences on behavior can help test and refine our theories of social action, leading to more complete theoretical accounts of social behavior.

The lack of research attention on situational factors is not due to a lack of theoretical interest. In the field of criminology, a number of criminological theories suggest that both individual and situational factors play important roles in the etiology of violence, including general strain theory (Agnew, 1992) and situational action theory (Wikström, 2006). Even trait based criminological theories, like Gottfredson and Hirschi's (1990) theory of self-control, posit a role for situations as presenting

opportunities to engage in violence. Yet while many criminological theories acknowledge that both individual and situational factors are important for understanding crime and violence, criminological theories generally do not provide specific and testable hypotheses for situational factors. Accordingly, the research rooted in these traditions tends to focus on individual-level differences, perhaps because these theoretical traditions provide clearer individual-level hypotheses.

Qualitative sociologists have also given theoretical attention to the role of situations in violence. Katz (1988) and Collins (2008), for example, forcefully argue that while individual-level characteristics may predispose people toward violence, situational factors are always necessary and are sometimes sufficient to cause violent behavior. Qualitative sociologists tend to focus on the rewards and barriers associated with the emotional and moral experiences of engaging in violence and suggest that they have identified general social psychological processes associated with violence. However, researchers like Katz (1988) and Collins (2008) do not address the interplay between individual-level and situational factors. To be fair, both Katz (1988) and Collins (2008) acknowledge the potential importance of individual-level factors. Indeed, it is reasonable to assume that individual-level characteristics affect how people perceive, experience, and respond to situational stimuli. Collins (2008: 21) suggests that the formation of a "multi-level theory, combining background and situational conditions… may eventually turn out to be a good way to proceed." Collins (2008: 21) suggests, however that, "there is much to be understood" about the situation "before taking that step."

In the current research, I take a first step at moving toward an approach that combines individual and situational factors in the study of violent events. While I agree

with Collins' (2008) suggestion that sociologists and criminologists have largely failed to study situational dynamics, I suggest that we already know a great deal of information about situational factors and how they relate to violence. In addition to the insights on situational factors produced by sociologists like Anderson (1999), Collins (2008), Gould (2003), Katz (1988), psychologists also identify a number of situational factors that might increase the probability of violence (see Anderson and Bushman, 2002). Integrating these situational level insights with the literature on individual level predictors of violence, I articulate and test hypotheses regarding the conditions under which violent responses are most likely.

Though there are a number of different ways to link individual and situational factors, I limit my attention here to studying how individual, situational, and the interaction between individual and situational factors influence behavioral responses to situations involving interpersonal conflict. I limit my scope to public acts of expressive violence. I do this because there a sizable body of psychological, social psychological and criminological research on that form of violence. This ensures that the current research is comparable to prior research and theorizing on violence. One of the primary contributions of the current research is in emphasizing the utility of the situation as the unit of analysis for the study of violent events. As stated before, most criminological research on violence focuses on individual-level differences. If the goal of a study is to explain why some people are more or less likely to engage in violence, then the individual is the appropriate level of analysis. My goal, however, is to study the factors associated with specific violent events. Therefore, situations are the appropriate level of

analysis. This poses a methodological dilemma in that is difficult to simultaneously study individual and situational factors.

Most sociological research on violent situations utilizes qualitative methods. Qualitative methods are useful in that they can capture the context and process through which behavior occurs. For example, researchers have observed the role that sexual and romantic overtures play in violent encounters at bars (Graham et al., 2010). Though it is certainly possible and useful to study violence with observational and ethnographic methods, these research designs tend to be most useful for studying situational factors, while providing limited opportunities for also assessing the influence of individual factors on violence. It is difficult to envision obtaining individual-level information from those who just engaged in a fist fight. While more individual-level information might be obtainable in long-term neighborhood ethnography, these single site qualitative designs likely limit the variation in individual-level characteristics.

By contrast, quantitative sociological and criminological research on violence, as argued before, tends to focus on individual-level characteristics. This is because quantitative research designs tend toward the use of traditional survey instruments. A typical violence questionnaire asks a series of questions about the respondent's background, attitudes, and experiences and then asks a set of questions about the types of violent acts that they have engaged in. This design does not allow for an examination of specific violent acts and, therefore, does not allow for an examination of situational factors. This is a reflective of a common critique of survey methods: they fail to capture contexts and processes.

In order to study the role that both individual and situational factors play in violent events, it is necessary to utilize a design that captures variation in situational and individual-level characteristics. In the current research, I utilize a quasi-experimental design that accomplishes this task. Specifically, I employ the factorial vignette survey design to study violent behavioral intentions. Utilizing a sample of college respondents, I gather information about various individual-level correlates of violence and ask respondents to read and describe how they would respond to a vignette depicting interpersonal conflict. The factorial element of this design is that each vignette contains randomly generated elements. This randomization, which results in situational factors being uncorrelated with each other and with individual-level factors, is why the factorial vignette design can be considered quasi-experimental. These randomly generated elements are identified by sociological and psychological research to be potential situational risk factors for aggression and violence and include provocation, aggressive cues, audience factors, and the size, race, and appearance of the other person in a given situation. Given information on individual-level factors and the variation in situational factors across vignettes, it is therefore possible to examine how individual-level, situational, and the interaction between individual and situational factors predict violent behavioral intentions.

This quantitative research design allows me to provide a first step at addressing the role that both individual and situational factors play in producing violent events. This research contributes to the sociological and criminological literatures on violence in several important ways. First, this research promotes the integration of sociological, criminological, and psychological literatures on aggression and violence. This results in

a set of specific and testable hypotheses regarding the role of both individual and situational dynamics in the production of violence. Second, this research provides an empirical assessment of the importance of situational factors. Though prior qualitative studies have examined the process through which violence occurs (Collins, 2008; Gould, 2003; Katz, 1988), quantitative designs are better suited for examining the predictive importance of specific situational factors. Third, the current research also allows for an examination of the role of individual-level factors in specific situational events. Most criminological research treats these individual-level factors as monolithic risk factors for engaging in violence. The current research addresses the possibility that certain individual-level factors are more predictive of violence in certain situations than in others. Fourth, this dissertation contributes to the development, specification, and testing of theories of violence. General strain theory and situational action theory, for example, provide theoretical explanations for both specific violent events and for person-level differences in violent tendencies. The current research provides a test of the explanations that these perspectives posit for violent events and, therefore, provides a useful and unit-of-analysis appropriate test of these theoretical arguments.

In this dissertation, I address three separate but related research topics. First, I address the degree to which situational factors predict variation in violent behavioral intentions while controlling for individual-level factors known to predict violence. Related to this, I also explore the interaction between situational and individual predictors of violence. Second, I demonstrate the utility of adopting a situational perspective for criminological research by presenting situational tests of situational action theory and general strain theory. Both theories provide explicit arguments linking situational factors

to the etiology of violence, though research has yet to address these situational processes. In the case of situational action theory, this may be reflective of the newness of the theory. As of 2012, there have only been four empirical tests of SAT and each of these tests has focused on individual-level differences in criminality. Similarly, the majority of GST research focuses on individual-level differences in criminality. Recent empirical tests of general strain theory report little support for the mediating processes described by the theory. By utilizing a situational level of analysis, however, I provide a test of these mediating and conditioning processes at the social psychological level. These situational tests are important contributions to the field of criminology. In the case of situational action theory, this theoretical test is important simply because situational action theory is new and in need of empirical assessment. In terms of general strain theory, the current is research important because it provides a first, albeit incomplete, examination of the situational strain process.

Chapter 2 presents an overview of the theoretical and empirical literatures related to the topics above. In Chapter 3, I describe my research design and argue that the factorial vignette methodology is appropriate for the simultaneous analysis of individual and situational factors. I also describe the data gathered for this research and present a basic descriptive analysis of the sample. In Chapter 4, I present results regarding the relationship between situational factors and violent behavioral intentions. In Chapter 5, I present the results of a situational test of situational action theory. In Chapter 6, I present the results of a situational test of general strain theory. And finally, in Chapter 7, I highlight the results of this research, discuss limitations, and articulate the implications for both research and theory on violence.

CHAPTER 2: THEORETICAL FRAMEWORK

In this chapter, I present the theoretical framework for three separate but related research questions: How are situational factors associated with violence? What role does morality play in situational violence? Do the mediating and conditioning processes proposed in General Strain Theory explain violence at the situational level? Each of the sections below frames one of these research questions.

Before addressing each research question, I note that I limit my attention here to public expressive violence. Though instrumental and private forms of violence are likely to also have situational origins, it is not obvious that situational factors that lead to instrumental or private violence are the same factors that lead to emotionally charged expressive public violence. I chose to limit my focus here on public expressive violence because there a sizable body of psychological, social psychological and criminological research on that form of violence. This ensures that the current research is comparable to prior research and theorizing on violence. If the current research shows situational dynamics to be significant predictors of expressive violence, future research should evaluate the degree to which these findings extend to other forms of violence.

Situational Factors and Violence

Research Question: Are situational factors related to violence?

A number of scholars claim that criminological research on violence overlooks the situational factors associated with violence (Collins, 2008; Katz, 1988). Though many theoretical perspectives on violence highlight both individual and situational factors, criminological research on violence overwhelmingly focuses on individual-level factors. In this section of the dissertation, I review the literature that highlights the

situational gap in empirical research on violence and discuss the potential consequences of failing to study situational factors. I argue that while various perspectives acknowledge the importance of both individual and situational factors, empirical research has not addressed the role of situational factors. Next, using the sociological and psychological literatures on aggression, I describe the situational factors hypothesized to increase the likelihood of violence and discuss how these situational factors might interact with individual-level factors. I conclude this section with a series of testable hypotheses.

The Consequences of Not Focusing on Situational Factors

Collins (2008) recently argued that criminology's overly narrow focus on individual factors limits theoretical and empirical knowledge about violence. While acknowledging that individual-level factors may create a predisposition for violence, Collins (2008: 20) suggests that individual-level factors are "not sufficient, situational conditions are always necessary." The rationale for this argument is simple: Even those individuals possessing numerous traits and characteristics predictive of violence do not engage in violence all of the time. People engage in violence in certain situations and not others. This suggests that there is something causally relevant about situations and implies that research on violence must account for situational factors.

Other scholars echo these comments. Katz (1988: 4), for example, argues that "whatever the relevance of antecedent events and contemporaneous social conditions, something causally essential happens in the very moments in which a crime is committed." Citing findings from a variety of qualitative research studies, Katz notes

that situational factors produce emotional responses that can either increase or decrease the likelihood of engaging in violence and that situational factors directly influence perceptions of the utility of violence.

More recently, Wikström (2006) argued this point forcefully, noting that the current trend in criminological research of focusing on individual differences in violent tendencies obscures our understanding of the processes by which violence occurs. By focusing on individual differences in violence, criminology fails to acknowledge violence as action. For Wikström (2006: 70), this is a significant hole in the literature. He argues that the development of a theory of action "can help specify the causal mechanisms that link the individual, and the environment, to action." Wikström's discussion of a theory of action highlights an important distinction in theoretical perspectives. Theories of violence explain why some people are more violent than others and/or why specific violent incidents occur. Though these endeavors are clearly related, they are not the same: one strives to identify the individual characteristics that predispose one towards violence and the other strives to identify the characteristics that lead to specific violent actions. I refer to these arguments as dispositional explanations and situational explanations, respectively.

Various criminological theories provide dispositional and/or situational explanations for violence. Research on violence, however, overwhelmingly focuses on dispositional arguments and therefore on explaining individual differences in violent tendencies. Though this focus is undoubtedly important, this body of research cannot directly address the etiology of violent actions. There are at least two negative consequences of failing to study situational factors. First, individual-level research

cannot address within-person variation in behavior. While people undoubtedly vary in their predisposition towards violence, situational can help factors explain why people engage in violence in some circumstances and not others. Second, it is difficult to empirically evaluate the situational processes described by theories of violence and aggression without focusing on the event (as well as the person). I explore this argument in more detail in the section below on general strain theory. In order to study violent actions, research must adopt the event, instead of the person, as the unit of analysis. Moreover, to the degree that criminologists are interested in explaining violence, I argue that research on violent events that fails to account for situational factors is misspecified.

Criminological theories, situational factors, and violence

The criminological literature has historically suggested that situational factors predict behavioral outcomes. Sutherland (1947: 5), for example, argued that criminal explanations are either "historical" or "situational." Historical factors relate to a person's background and prior experiences, while situational factors are the specific characteristics of a given criminal event and the perceptions of actors involved in that event. Hirschi and Gottfredson (1986: 58) made a similar point by noting the differences between crime and criminality: crimes are events and are situational in nature, while criminality is an individual-level characteristic of a person.

Some criminological theories focus narrowly on criminality. While Gottfredson and Hirschi (1990) note that crimes result when people with low self-control come into contact with opportunities to engage in crime, they also note that criminal opportunities are ubiquitous and therefore suggest that a single trait, self-control, explains variation in

criminality (and thus violence). Birkbeck and LaFree (1993) suggest that most classical criminological theories (for example, both Merton's 1938 classic strain theory and Sutherland's 1947 differential association theory) lend themselves to explaining individual-level differences in criminality. Other theoretical perspectives are purely situational. The life-styles / routine activities perspective (Cohen and Felson, 1979; Jensen and Brownfield 1986) argues that violence is more likely to occur in situations in which suitable targets converge with motivated offenders in the absence of capable guardianship. Though these perspectives highlight the role of situations in the etiology of violence and crime, the research based on these perspectives typically studies macro-level patterns and trends. This is likely due to the fact that opportunity theories of crime view motivation as a given. Wikström (2006) challenges arguments suggesting the ubiquity of criminal motivation, arguing that motivation is situationally generated. He suggests that certain situational factors are more likely to result in situational motivation towards violence than others.

Others criminological perspectives focus on both individual and situational explanations for behavior. For example, Agnew (1992: 60) states that general strain theory contains both arguments. He notes that "strain may create a predisposition for delinquency or function as a situational event that instigates a particular delinquent act." The idea that situational factors create pressures for violence and that individual-level factors influence how a person responds to these pressures is central to general strain theory. Despite acknowledging that both situational and individual-level factors matter, research on general strain theory is overwhelmingly focused on the dispositional

argument. That is, research on general strain theory focuses largely on explaining how differences in exposure to strain explain differences in criminality.

Why are situational factors understudied?

There are a number of reasons that may explain why criminological research on violence has not focused on situational factors. It may be that some criminologists view the study of specific criminal events as outside the realm of criminology. Since Hirschi's (1969) now classic work on social bond theory, criminologists have largely focused on individual-level explanations of criminality. Along with a resurgence of interest in macro criminology, criminologists have largely focused on individual-level and macro level criminological processes and trends. It seems as though studying differences in criminality or differences in crime rates across geographic aggregations is normative in criminology, while studying specific criminal events is often left to psychologists, economists, and social psychologists. This is unfortunate, as the processes described in many criminological theories include a social psychological element that defines specific criminal events and if we ignore this element we cannot fully test the theories.

The generality of most criminological theories may also limit their application to the situational study of violence. These theories describe the risk factors for engaging in criminal or delinquent behavior broadly and aim for parsimony. While this approach may be quite helpful in addressing between-person differences in criminality more broadly, it may fall short of addressing within-person variation for specific behaviors. The situational dynamics that increase the likelihood of violence are likely different than the situational dynamics that increase the likelihood of drug abuse or theft, which in turn

are likely different than the situational factors associated with sexual crimes or harassment. Rational choice theorists argue this point and suggest that criminology should adopt a crime-specific focus (Cornish and Clark, 1986). This suggests that in order to provide clear and specific hypotheses regarding situational factors, criminological theories would have to address differences across criminal behaviors. Theorists have made some progress on this front. Agnew (2006b) for example, notes that strains that cause anger may lead to violence, strains that cause frustration may be associated with property crimes, and strains that produce depression may lead to drug abuse and self-harming behaviors. Yet due to the broad scope of general strain theory, Agnew has not addressed the specific situational risk factors for engaging in specific criminal behaviors. Agnew (2006b: 71-75) argues that a variety of specific types of strain are related to crime. Many of the factors, however, highlight childhood experiences and the accumulation of strain in the course of development. It is not clear that his list of strains hypothesized to lead to crime is intended to act as a list of specific situational strains.[1] For example, Agnew suggests that abuse as a child is one of the strains likely to lead to crime. This is an individual-level argument. People who experience abuse as children are more likely to engage in crime as adolescents and adults. That is, those individuals who have experienced this type of strains are more likely to have a predisposition toward crime (or, in other words, have higher levels of criminality).

[1] Agnew (2006b: 71-75) suggests that the following types of strain are likely to be related to crime: parental rejection, supervision/discipline that is erratic, excessive, child abuse and neglect, negative secondary school experiences, abusive peer relations, work in the secondary labor market, unemployment, marital problems, the failure to achieve selected short-term goals, criminal victimization, residence in economically deprived communities, homelessness, and discrimination based on characteristics such race/ethnicity and gender.

I argue that general theories of behavior ultimately do not provide specific testable hypotheses regarding situational factors. Given that these theoretical models do not present such hypotheses, it may be that empirical researchers avoid studying violence as a situational event due to the lack of theoretical guidance on these issues. The social psychological and psychological literatures on aggression and violence present several testable claims about the relationship between situational factors and violence. These factors may be useful in addressing the situational dynamics described by various criminological approaches. In the section below, I describe this literature and integrate it with criminological theory on violence to produce a set of testable hypotheses.

Situational factors and violence

Much of the theorizing and empirical research on potentially violent situations describes the outcomes of these situations as dichotomous (fight or flight) in nature. Cognitive neoassociation theory (Berkowitz, 1990), for example, states that aversive situations produce negative affect and that this negative affect leads to either aggressive or fearful behavior. Griffiths, Yule, and Gardner (2011), in their discussion of Gould's (2003) relational approach to understanding conflict, argue that most trivial violent situations can be best understood as contests of dominance and deference. Vigil's (2009: 376) socio-relational framework of behaviors (SRFB), while not focused explicitly on violent behavior, argues that "the most basic dimension of expressed emotion is the universal motivation to respond to external stimuli, and especially to other social agents, with either approach or withdrawal behaviors." While person-level factors are undoubtedly important for understanding the approach-withdrawal decision, a large body

of research suggests that situational factors are also important. The following section utilizes various theoretical perspectives and empirical findings to introduce some of the situational factors that may predict the flight or fight response. Below, I discuss two categories of situational factors related to violence. These categories are the content of a situation and the relational characteristics of the actors involved in a situation. For the sake of presentation, I present these categories as distinct, though there is clearly conceptual overlap in these theoretical dimensions.

Situational Content and Violence

Anderson and Bushman's (2002) general aggression model (GAM) is one of the most prominent explanations for aggression (though not without controversy; see Ferguson and Dyck, 2012). This model argues that both person-level and situation-level inputs lead to aggressive and non-aggressive behavior. The situational inputs for the general aggression model include provocation and aggressive cues[2]. According to the GAM, each of these inputs can increase the likelihood of aggressive behavior by "increasing the relative accessibility of aggressive concepts in memory" (Anderson and Bushman, 2002: 38, see also Bargh, Lombardi, and Higgins, 1988, on the automaticity of responses), increasing negative and especially aggressive affect, and producing arousal (conceptualized as the readiness to respond to external stimuli).

Provocation, a situational factor discussed by various criminologists (Wikström, 2006; Tittle, 2004, Agnew, 1992) includes verbal insults and unwanted or unexpected physical contact. For example, Wikström (2006) conceptualizes of provocation as one of

[2] The GAM also states that pain and discomfort, drugs, and incentives can serve as situational inputs that lead to aggression. It is not possible to empirically examine these inputs given the research design and therefore I have chosen to limit my attention to provocation and aggressive cutes.

the two types of motivation that produce moral rule breaking behavior (the other is temptation). Each of these theoretical perspectives suggests that people are more likely to respond with aggressive behavior when they are provoked, which could include both verbal insults and physical prompting (like pushing or bumping). Like general strain theory (Agnew, 1992), the general aggression model argues that provocation leads to aggression at least partially via frustration and the production of anger. The general aggression model also argues that provocation may increase the likelihood of aggression by increasing arousal, which sometimes results in dominating behaviors (Anderson and Bushman, 2002). Provocation may also increase the likelihood of aggression in that the provocateur becomes a viable target for blame. Research suggests that external attributions of blame increase the risk for delinquent acts (Hoffman and Spence, 2010; Cloward and Ohlin, 1960).

It should be noted that provocation, while perhaps a necessary condition for violence, is unlikely sufficient to cause violence. Collins (2008) notes that the majority of potentially violent situations consist of bluster (back and forth exchanges of insults and threats) and that violence rarely emerges from these situations. Collins' discussion of bluster focuses largely on verbal exchanges and not on physical provocation. While not explicitly addressed by the GAM or by Collins' microsocial theory of violence, physical provocation may be more likely to lead to violent behavior than verbal provocation since physical provocation may send stronger cues regarding the intentions of the person in a scenario.

The general aggression model suggests that situations that involve aggressive cues are also risk factors for violence. Aggressive cues include factors like the presence of

weapons and proximity to violence. Anderson and Bushman (2002) have noted that the presence of weapons can prime aggressive memories and that this can increase the likelihood of aggressive attitudes and behaviors. Similarly, they note that exposure to violent forms of media can also serve as cognitive cues that increase aggression. While not explicitly discussed by Anderson and Bushman, research indicates that exposure to actual violence (e.g., other people fighting nearby, rioting, etc.) might also increase the likelihood of a person engaging in violence via the same causal pathways (Myers, 2000; Patten and Arboleda-Florez, 2004). The concept of aggressive cues also relates to the relationship between provocation and violence. For example, physical provocation may be a more explicit aggressive cue than verbal provocation and therefore may have a stronger priming effect.

Other research suggests that the presence of an audience is likely associated with the outcome of a potentially violent situation. Luckenbill and Doyle (1989), for example, argue that violence is most likely to occur between equals in public spaces where audiences are likely to be present. It may be the case that the audience involved in a public conflict both enhances the potential status gains and losses associated with a confrontation, while simultaneously providing social pressure to engage in violent behavior. Research suggests that provocations in front of an audience are more likely to generate anger (Miller, 2001). Moreover, there is evidence that crowd presence increases both the likelihood of responding to provocation and the severity of the response (Kim, Smith, and Brigham, 1998; Felson, 1982), unless the audience explicitly disagrees with the form of retaliation (Borden, 1975). Collins (2008: 199) suggests that the presence of the audience turns violent situations into Goffman-esque performances, which assist

would-be combatants in overcoming the confrontation tension and fear associated with violence. Similarly, the violent incidents described by Messerschmidt (2012) suggest that the presence of an audience heightens the likelihood of violence. Messerschmidt provides a number of examples of violent conflicts, the majority of which occur in front of audiences.

The Characteristics of Actors in Potentially Violent Situations

In addition to the content of a given situation, research also suggests that the characteristics of actors in a given situation matter. These characteristics matter because they at least partially shape how people perceive and respond to situational inputs. These characteristics include physical appearance, perceived demographic traits (including age, race, and gender), and relatedly perceptions of relational status. In situations where people are faced with uncertain information about the others involved in a scenario, these visual perceptions activate heuristic shortcuts drawing on past experiences and stereotypes to prime expectations regarding others (Bodenhausen and Wyer, 1985; Massey, 2005; Tversky and Kahneman, 1974). The perceived characteristics of actors therefore influence perceptions of ill-intent.

Vigil (2009) suggests that perceptions of trustworthiness and capacity that an actor attributes to others guide emotional responses to situational interactions. Trustworthiness cues, which include interpersonal displays of prosocial behavior and vulnerability, indicate the probability that another will engage in reciprocal altruism. Conversely, a lack of trustworthiness, expressed either through facial expressions, verbal statements, or observed behaviors, indicates that another will engage in exploitive or

predatory behaviors and suggests that the other person intends harm. Capacity cues, which include personal characteristics like physical stature and subjective characteristics like perceived competencies in physical confrontations, indicate the degree to which another person can "affect the welfare of others, positively or negatively" (Vigil, 2009: 377). Those perceived as having little capacity are viewed as benign, while those perceived as having a high a capacity are viewed as dangerous. In terms of aggression and violence, Vigil's theory proposes that emotions like anger, rage, and contempt are most likely when a person views another as having low levels of trustworthiness and low levels of capacity. These perceptions indicate that the other person is perhaps more likely to engage in antisocial (aggressive) interactions than prosocial (protective) interactions with the perceiver, yet the low capacity cues indicate that they can be addressed with behaviors (expressions of anger and hostility) that operate to avoid or eliminate the perceived threat with minimal physical risk, as the other person is thought to have little potential to inflict harm.

Prior experiences with the other person and experiences with people with the same perceived demographic characteristics of the person likely affect perceptions of trustworthiness and capacity. People are more likely to have accurate perceptions of the capacity of friends and acquaintances and also more likely to perceive these people as trustworthy. Conversely, people may be more likely to view strangers with distrust and base their perceptions of capacity on visual cues, like size, demeanor, race, gender, and general appearance (dress, hairstyle, tattoos, etc.).

Research in a variety of disciplines demonstrates that visual cues influence perceptions of trust and hostility. For example, research on cognition and memory

priming suggests that the people who are perceived as African American are more likely to be viewed as hostile (Devine, 1989) and treated with hostility (Bargh, Chen, and Burrows, 1996), which may be reflective of the prevalence and efficacy of cultural and racial stereotypes (Devine, 1989). Similarly, St. John and Heald-Moore (1995, 1996) present vignette research that demonstrates that people are more likely to report being afraid when confronted with a Black person in a scenario than a White person. Taken together, this research suggests that racial perceptions influence perceptions of trustworthiness as Blacks are often viewed as threatening.

Research indicates that perceptions of masculinity are associated with cues of dominance/capacity for both males and females (Quist et al., 2011; Fink, Neave, and Seydel, 2007; Sell et al., 2009; Watkins, Jones, and DeBruine, 2010) and aggressiveness for males (Weaver et al., 2010; McCarry, 2010). Taken together, this research suggests that the physical and demographic characteristics of the other person influence the likelihood of engaging in violence. It is safer to aggress against less masculine individuals because these individuals are perceived as low in capacity. Watkins et al., (2010), for example, show that the height of males influences their perceptions of the dominance of other males. Messerschmidt's (2012) life histories of youth violence also support the claim that physical size influences situational perceptions. For example, one of the female youths in Messerschmidt's (2012: 69, 80) study noted that "there are a lot of guys that are bigger than me and I wouldn't fight them, you know", while a male youth noted that he preferred to fight people smaller than him, noting that he only "fought kids that he could beat up." This implies that situational factors, like the size of the other person in a scenario, affects within-person variation in behavior. Many of the youths in

Messerschmidt's (2012) study only engaged in violence in situations where they thought that the conflict was winnable, thereby supporting the rational choice claims linking target selection to target hardness.

Physical appearance, in terms of clothing and style, may also matter in the context of potentially violent encounters. Limited research suggests that people are more likely to aggress against people who dress unusually **(**Kennedy and Baron, 1993; Frisén, Jonsson, and Persson, 2007; Messerschmidt, 2012) and less likely to aggress against people dressed in "high status clothing" (Harris, 1974). Anderson (1999: 73) writes that "physical appearance, including clothes, jewelry, and grooming" play a role in deterring acts of aggression in youth street cultures, while Sweet (2010) notes that clothes and material possessions more broadly play an important role in the construction of social status for adolescents. Similarly, research suggests that tattooed males are viewed as more dominant than other males, though not necessarily more aggressive (Wohlrab et al., 2009). Interestingly, females with tattoos are more likely to be perceived as unhealthy and are not typically viewed as dominant (Wohlrab et al., 2009). As a whole, this research indicates that physical appearance influences perceptions of capacity and trustworthiness at the situational level.

In summary, psychological and social psychological research on aggression and violence provides a number of theoretical hypotheses that link both the content of situations and the relational status of actors involved in situations to violent outcomes. The following general hypotheses link situational factors to expressive public violence.

> *Hypothesis 1: Potentially violent situations characterized by higher levels of provocation and the presence of aggressive cues are more likely to result in violent outcomes.*

Hypothesis 2: The presence of an audience influences the likelihood of violence in potentially violent situations. Specifically, people are more likely to engage in violence if an audience is present and focused on the interpersonal conflict.

Hypothesis 3: The relational status of participants in a potentially violent situation, indicated by capacity and trustworthiness cues like the race, size, and appearance of participants influences the likelihood of violence in potentially violent situations.

While I have discussed these elements separately, there is potentially considerable overlap between the situational content and the characteristics of actors in a situation. For example, while the physical size and appearance of a person may influence perceptions of dominance and capacity, the stereotypical nature of these characteristics may also serve as aggressive cues that increase negative affect, arousal, and prime aggressive memories.

Both the content and characteristics of actors in situations reflect the processes described by criminological theories that provide a role for situational factors. For example, the root cause of crime in general strain theory is strain (Agnew, 1992). Factors like provocation, the presence of aggressive cues, and the presence of an audience make sense from the general strain perspective, as each of these situational inputs reflects the severity of a specific form of strain (the presentation of negative or noxious stimuli). In control balance theory, the ratio of control that one can exert to the control that one is exposed to is the primary causal factor (Tittle, 1995; 2004). Similar to general strain theory, situational inputs can hypothetically affect a person's control ratio. Provocations, threats, and aggressive displays more broadly can be viewed as events that temporarily provide either an actual or threatened control deficiency. In response, an individual may view violent behavior as a mechanism for regaining control. According to situational action theory (Wikström, 2006), moral context largely determines whether a person

views violent behavior as a suitable action alternative. The situational factors described in this chapter highlight the characteristics of those moral contexts in which violence may be perceived as an acceptable action alternative. For example, situations that involve threats may offer cues regarding the moralistic appropriateness of violence in a given situation.

The Relationship between Individual Characteristics and Situational Factors

Criminological research demonstrates a number of correlations between various individual-level factors and criminality. These factors are important to consider for a situational analysis of crime because it is likely that individual-level characteristics condition a person's response to situational inputs. A complete a discussion of all individual-level correlates of crime and how they might interact with situational factors is outside of the scope of this dissertation. Here, I focus on the individual-level factors highlighted by general strain theory and situational action theory, as I previously suggested that these theoretical traditions provide an explicit role for situational factors in the etiology of crime.

Strain theorists emphasize the importance of factors like emotionality and the accumulation of strain (Agnew, 1992; Ganem, 2010; Slocum, 2010). General strain theory suggests that people with dispositions toward negative emotional states (that is, people who might be described as angry or frustrated) are more likely to respond negatively when involved in stressful situations because they view the situations as more aversive and stressful than others (Agnew et al., 2002). Put succinctly, Agnew et al. (2002: 48) write that "there is good reason to believe that the impact of strain on

delinquency may be heavily dependent on the traits of the person experiencing the strain."

Situational action theory highlights the role of morality in connecting situational factors to behavior. Specifically, Wikström argues that whether or not violence occurs is determined by a person's moral rules and the moral characteristics of the setting (Wikström and Treiber, 2009). Wikström suggests, therefore, that a person's global sense of morality interacts with a more local moral context, which together defines the moral rules that permit and condone violence in a given situation. People who universally or nearly universally view violence as a non-acceptable action alternative are unlikely to respond with violence under any circumstance, while those who believe that violence is sometimes an acceptable behavioral response are more likely to respond to situational provocation with violent behavior. Put simply, Wikström and Treiber (2009: 83) write that "the interaction between an actor and setting will determine whether that actor is motivated to commit an act of violence."

Interestingly, both general strain theory and situational action theory suggest that self-control (or constraint) is an important individual-level factor that determines responses to situational inputs (Agnew et al., 2002; Wikström and Svensson, 2010). From the general strain perspective, low self-control or low constraint might interact with situational factors in that people with low self-control/constraint are more likely to view situational provocations as stressful (Agnew at al., 2002) and are less likely to consider the ramifications of various behavioral responses. From the situational action perspective, Wikström and Treiber (2007) suggest that the ability to exercise self-control

is a key factor that determines whether a person who is motivated to commit a crime does so or not.

In addition to self-control, other individual-level factors may also condition the relationship between situational factors and violence. Men, for example, are more likely than women to engage in violence. It is possible that this gender gap in violence is explained by the fact that men are more likely to respond to situational cues with aggression than women. Indeed, general strain theorists describe this possibility as one potential explanation for gender differences in crime (Broidy and Agnew, 1997). Similarly, there may be important racial and ethnic variation in responses to situational stimuli. Messerschmidt (1993), for example, argues that masculinity can be understood as a situational accomplishment. He suggests that the form of this situational accomplishment varies by race and class, with those in social positions less conducive to mainstream success accomplish masculinity via aggression, violence, and crime. In summary, research and theory on general strain theory and situational action theory suggest a general hypothesis regarding the interaction of individual-level and situational factors in the production of violence. This results in the moderation hypothesis:

> *Hypothesis 4: There is an interactive relationship between individual-level factors and situational predictors of violence. The effect of situational factors on violence is expected to be greater for those with certain individual-level traits and characteristics.*

Chapter 4 presents empirical tests of hypotheses 1 through 4. Having established the general argument for examining situational factors above, I next provide two applications of the situational perspective in criminological research. In the following section, I present the argument for a situational test of situational action theory.

A Situational Test of Situational Action Theory

Wikström's (2006) situational action theory provides some theoretical guidance for a situational analysis of violent events. Wikström (2006) suggests that violence and crime more broadly should be viewed as actions that break moral rules and that studying moral rule breaking requires a focus on both individual and contextual factors. Like other criminological theories (see the section below on general strain theory), situational action theory includes arguments designed to explain both criminality and specific criminal events. Specifically, Wikström and Treiber (2009) describe both situational context and developmental context arguments associated with situational action theory. The situational context arguments explain specific actions, while the development arguments explain tendencies toward engaging in violence. Though a relatively new criminological perspective, the majority of research on situational action theory focuses on individual-level differences in criminality. Here, I present a brief overview of situational action theory and discuss the arguments relating situational context to violent actions. I conclude by presenting specific testable situational hypotheses derived from this perspective.

Situational action theory

According to situational action theory, violence is the result of the interaction between propensity and exposure to inducements to engage in violence (Wikström and Treiber, 2009: 91). Propensity consists of morality and self-control. Morality refers to a person's attitudes regarding the wrongness or appropriateness of a specific action in a given setting. Despite being incorporated into a number of criminological perspectives (Akers 1998; Hirschi, 1969), Antonaccio and Tittle (2008: 481) suggest that morality has

been "relatively neglected by students of crime." Gallupe and Baron (forthcoming) argue that situational action theory is the only criminological theory that uses morality as its central causal variable.

Self-control, conversely, has a prominent role in the criminological literature. In addition to being the cornerstone of Gottfredson and Hirschi's (1990) General Theory of Crime, it is also one of the most consistent predictors of criminality (Pratt and Cullen, 2000). Interestingly, however, while Gottfredson and Hirschi (1990) place self-control at the center of their theory, Wikström and Treiber (2007, 2009) suggest that self-control is ultimately a contingency variable that is only relevant in certain situations. Specifically, for situational action theory, self-control only matters in situations where there is ambiguity in the appropriateness of violence in response to situational stimuli. If a person does not view violence as situationally appropriate, then level of self-control is irrelevant. Similarly, if a person views violence as the only appropriate response then self-control is also irrelevant. Self-control only matters in situations in which a person views violence as one of several viable actions. Situational action theory views deterrence as a second contingency variable. Like the argument regarding self-control, situational action theory suggests that deterrence cues only matter in situations in which a person deliberates about the appropriateness of violence. Ultimately, situational action theory views self-control and deterrence as controls that vary only in their location (with self-control as internal to the actor and deterrence as external).

The second component in the situational action framework is exposure to inducements to engage in violence. This exposure concept relates to the issue of criminal motivation. Specifically, situational action theory states that the two primary motivations

for violence are temptation and provocation (Wikström and Treiber, 2009: 80). Temptation refers to exposure to needs, wants, or other commitments that can be obtained or fulfilled through the use of violence. Provocation refers to unwanted interference from another person. According to Wikström and Treiber (2009), temptations are internal, while provocations are external. It is clear, however, that the concepts of temptation and provocation are situational in nature. Not everyone responds to temptation or provocation with violence. The likelihood that a person responds to a given set of situational stimuli with violence is a product of the intensity of the temptation or provocation and the actor's propensity to engage in acts of violence. Wikström and Treiber (2009: 81) conclude that "acts of violence can be seen as an outcome of the causal interaction between a person's propensity to engage in acts of violence, and his/her exposure to environmental inducements to engage in acts of violence: Propensity x Exposure = Action."

As a fairly new theory of crime, there have been few empirical tests of situational action theory (Antonaccio and Tittle, 2008; Gallupe and Baron, forthcoming; Svensson, Pauwels, and Weerman, 2010; Wikström and Svensson, 2010). These empirical studies all support the idea that morality is an important predictor of criminality. Antonaccio and Tittle (2008: 504) conclude that "(lack of) morality is the prime factor in explaining criminal behavior, overshadowing self-control." These studies have also examined and produced mixed results regarding the proposed relationship between self-control and morality. Wikström and Svensson (2010) and Svensson et al. (2010) demonstrate statistically significant interactions between low morality and low self-control, while

Antonaccio and Tittle (2008) and Gallupe and Baron (forthcoming) find no evidence of an interaction between morality and self-control.

Given that situational action theory claims that self-control should only matter for certain cases (e.g., those where morality is at a medium level), it is not clear that the traditional product interaction model is best suited for examining this relationship. Though a combination of interaction and quadratic terms could potentially address the nonlinear interactive relationship proposed by situational action theory, I suggest that it is more straightforward to utilize split-sample models (low, medium, and high levels of morality) to examine the relationship between self-control and crime for different levels of morality as this allows researchers to determine if self-control only matters for certain levels of morality. To date, only Antonaccio and Tittle (2008) and Svensson et al. (2010) have utilized split-sample models and have found contradictory results. Antonaccio and Tittle (2008) note that self-control predicted crime at all levels of morality, while Svensson et al. (2010) report a much stronger relationship between self-control and crime for people with medium and higher levels of morality. Clearly, the role of self-control in the situational action framework requires additional research attention.

Each of the four tests of situational action theory published to date evaluates individual-level differences in criminality. Wikström and Svensson (2010) use measures of situational action theory to explain cross-national differences in rates of youth violence. Antonaccio and Tittle (2008) use measures of key situational action theory variables to predict the frequency of future offending among a sample of Ukrainians. Gallupe and Baron (forthcoming) cross-sectionally examine the frequency of drug use among a sample of Canadian street youth. Svensson et al. (2010) cross-sectionally

examine self-reported offending of adolescents from samples in Antwerp, Halmstad, and South-Holland. In each case, these studies focus on explaining differences in criminality or projected criminality; none of these studies examines criminal events.

I do not view this as a short-coming of prior studies. Situational action theory attempts to explain both criminality and specific criminal events. Individual-level differences in criminality may be explained by *moral education*, the process by which individuals develop specific moral attitudes by exposure to prior moral contexts (Wikström and Treiber, 2009: 93). Specific situational events, however, are explained as moral actions, which as previously discussed, are moral behaviors that result from the interaction between propensity and exposure to a setting conducive to violence. Given the paucity of research testing situational action theory, no empirical tests have examined whether the situational action argument can explain specific violent events.

At the situational or action level, situational action theory produces several testable hypotheses. First, situational action theory posits a relationship between morality and violence. In the limited empirical literature on situational action theory, the link between morality and violence is most commonly tested by examining the relationship between a person's attitudes about violence and some measure of violence. This results in the following hypothesis:

> *Hypothesis 5: People are more likely to respond with violence if they have moral attitudes favorable toward violence.*

While each of the empirical studies of situational action theory has focused on the relationship between self-control and morality, no research has thus far examined the proposed interactive relationship between propensity and exposure to situational inducements to violence. This is an interesting omission, as Wikström and Treiber

(2009) describe this interaction as the key cause of violence. Situational action theory's primary hypothesis is that the interaction between propensity and exposure to inducements to violence leads to violent actions. Given my focus on expressive violence, I limit my attention here to the role of provocation. This suggests that provocation is more likely to lead to violence when the person provoked has attitudes favorable to violence.

> *Hypothesis 6: The effects of provocation on violence depend on moral attitudes toward violence. The effect of provocation is expected to be greatest for those with attitudes favorable toward violence.*

And finally, situational action theory suggests that self-control and deterrence are only related to violence in settings in which the individual is faced with ambiguity regarding the appropriate behavioral response for a given setting. Specifically, self-control and deterrence are unlikely to matter in situations where an actor views violence either as necessary or as morally unacceptable. Conversely, these factors will matter more in situations where an actor views violence as a viable behavioral response.

> *Hypothesis 7: Self-control does not predict violence in situations where a person views violence as unacceptable or necessary.*

> *Hypothesis 8: Deterrence does not predict violence in situations where a person views violence as unacceptable or necessary.*

Chapter 5 presents empirical tests of hypotheses 5 through 8 using a factorial vignette design to operationalize situational factors. In the following section, I present the argument for a situational test of general strain theory.

A Situational Test of General Strain Theory

Recent research on general strain theory implies that the conditioning processes described by general strain theory are in need of theoretical refinement. I argue that general strain theory consists of two distinct (though related) theories. Specifically, general strain theory consists of a predispositional (individual differences) and situational (social psychological process) argument. I argue that the social psychological aspects of the theory are better suited for evaluating the conditioning and mediating arguments. This is an important point, as the vast majority of general strain research examines the predispositional arguments associated with general strain theory. In the sections below, I begin by briefly describing general strain theory and by making a case for viewing general strain theory as consisting of both individual and situational arguments. Then, I summarize research examining the conditioning processes described by general strain theory. Lastly, I make the case for a situational test of general strain theory and conclude this section with a set of testable hypotheses.

General strain theory

General strain theory attempts to explain both individual-level differences in criminal behavior and criminal responses specific situational events. In Agnew's (1992: 60) earliest statement on GST, he notes that "each type of strain may create a predisposition for delinquency or function as a situational event that instigates a particular delinquent act." The individual argument suggests that the experience of strain influences a person's predisposition toward crime. That is, general strain theory argues that people who experience more of the types of strain conducive to crime will commit more crimes than those exposed to less strain. At the situational level, however, general

strain theory describes a social psychological process that focuses on emotional responses to strains. Here, I focus on the social psychological aspects of general strain theory.

GST's primary social psychological assertion is that strain, through some combination of mediating and/or conditioning processes, increases the likelihood of criminal behavior. Agnew argues that experiencing strain increases the likelihood that individuals will experience negative emotions, which creates pressure for coping. Coping can take the form of cognitive, emotional or behavioral responses. These coping responses are categorized as either legitimate (normative) or illegitimate (deviant, which can include violence and criminal acts). Therefore, Agnew's primary argument is that situational strains (that is, the strains produced by a given social interaction) produce negative emotional responses and that crime is one method of coping with these negative emotions. This produces the general strain mediation hypothesis: Negative emotional responses mediate the relationship between strain and crime.

The social-psychological aspects of general strain theory also include a conditioning argument. This conditioning argument helps explain why not everyone who experiences strain and negative emotions copes with crime. Agnew suggests that there are other factors that influence whether strain and negative emotions lead to criminal coping. Originally, Agnew argued that variance in coping responses to strain was a function of individual coping resources. Early research, however, was not supportive of this hypothesis leading Agnew et al. (2002: 45) note that "most studies find little evidence for the conditioning effects predicted by GST." In light of this, Agnew et al. (2002) revised GST to more heavily focus on personality traits and subjective strain. While not abandoning the idea that coping resources condition the relationship between

strain and crime, Agnew et al. (2002) argue that it is necessary to also consider the role of personality traits in the strain-crime relationship. Specifically, Agnew et al. (2002) argue that "negative emotionality" (which is characterized by the presence of stronger, more negative emotional reactions to strain) and "low constraint" (impulsiveness) are important for understanding the link between strain and crime. They find that strain, negative emotionality, low constraint, and the interaction between strain and these personality traits are all associated with delinquency. More specifically, they argue that negative emotionality and low constraint are not important predictors of delinquency when strain is low, yet very important predictors when strain is high. In other words, Agnew et al. (2002) claim that individuals with less constraint and higher levels of negative emotionality are more likely than others to respond to strains with crime.

A number of studies find evidence that strain is a statistically significant predictor of criminality (for a review of this literature, see Agnew 2006a). Research testing the mediation and conditioning claims has, however, been less supportive of general strain theory. Tittle et al. (2008) found that negative emotions did not mediate the relationship between strain and crime and that strain did not interact with self-control. Similarly, Botchkovar et al. (2009) found no interactive relationship between strain and self-control, regardless of whether they employed measures of objective or subjective strain. These results have lead scholars to question some of the key strain arguments. For example, Tittle et al. (2008: 306) suggest that strain may have a direct relationship with coping and that it need not operate through emotional responses. Similarly, Botchkovar et al. (2009: 160) conclude that “objective strain, either by itself or through other elements of the strain–crime causal link, does not seem to provide any explanation of individual

involvement in violence" for populations in Greece or Russia. Tittle et al. (2008) and Botchkovar et al. (2009) both suggest that, at a minimum, the lack of evidence for the strain process suggests that substantial theoretical revisions are necessary for general strain theory.

Though it may be true that general strain theory requires some form of revision, I argue that it is premature to fundamentally revise the social psychological aspects of general strain theory. These arguments are based largely on research conducted at the individual level. Put briefly, the above studies (and in fact, most studies of general strain theory) utilize regression analysis to examine the relationship between an individual-level measure of strain (often a composite index of all of the stressful events that a person has experienced within a recent time period) and some measure of delinquency. These empirical tests, therefore, evaluate the following questions: do individuals who experience more strain also engage in more crime and is the relationship between strain and crime mediated/moderated by the factors described by the theory? These individual-level tests of general strain theory essentially aggregate stressful situations to the person level and argue that if the theoretically expected correlations are present that this is (or is not) evidence supporting the process described by the theory.

I argue that the general strain conditioning and mediating processes should be studied at the situational level. Indeed, even Agnew's book, *Pressured into Crime: An Overview of General Strain Theory*, emphasizes the situational strain argument. This book begins with a series of quotes from criminals who describe why they engaged in criminal behavior (2006: 1-2). The examples that Agnew provides are rooted in specific stressful situations. For example, one of the criminals started a fight as a means of

defending family honor, another punched someone after that person had stepped on his foot, and a shoplifter claimed to have engaged in theft after experiencing specific stressful situations, like struggling through finals week or fighting with her partner. For many of the people described by Agnew, there was something very memorable and apparently important about the specific stressful situations that preceded specific criminal behaviors. It is not until page 38 where Agnew states that "GST not only explains why individuals commit particular crimes, but also why some individuals have a greater predisposition to crime than others" that he moves the discussion from the situational to the individual-level dynamics implicated in offending.

I suggest that even where evidence does not support GST processes at the individual level, the processes implicated by GST may operate at the situational level. People respond to certain stressful situations with negative emotions and to other stressful situations with neutral or positive emotions. The specific emotional response that a stressful situation generates likely relates to both the situation and the people involved in the situation. Once a person experiences a particular strain and responds with negative emotions, this person may cope with the stressful situation in a manner that is conditioned by the factors described by GST. When these situations are aggregated to the individual-level and operationalized as accumulated strain and trait-based emotional tendencies (or the accumulation of state-based emotional reactions), the mediating and moderating effects proposed by GST are likely dulled by both the inclusion of strains that are not particularly bothersome and because this strategy ignores the situational contexts in which the strains occur.

Agnew (2006b), aware of the limitations of traditional research designs, recommends vignette studies for future research on GST. Vignette studies provide respondents with an example of a stressful situation and ask respondents how they believe they would respond to that situation. While both standard and vignette tests of GST are likely to gather information about personality traits and background characteristics (prior strain experiences, negative emotionality constraint, etc.), vignette studies also often ask respondents to indicate how they believe they would feel if exposed to a particular stressful event. Vignette studies of GST, unlike traditional cross sectional or panel studies of GST, focus on a specific stressful event and thus provide a means of testing the strain-crime process. In addition to this, vignette studies are able to examine both stable personality traits and situational dynamics related to a specific stressful event. The limited number of vignette studies on GST supports the argument that GST should be studied as a situational process (Mazerolle and Piquero, 1997, 1998; Mazerolle, Piquero, and Capowich 2003**;** Ganem 2010). Specifically, these vignette studies of GST are more supportive of the conditioning factors proposed by Agnew, as some of these studies tend to find stronger mediating effects of emotional responses than other survey-based studies (Mazerolle, Piquero, and Capowich 2003; Ganem, 2010).

Though these vignette studies on general strain theory contribute to our overall assessment of the proposed GST processes, no vignette studies to date have explicitly examined how variation in situational factors influences the strain-crime process. That is, all of the vignette studies on GST present all survey respondents with the same scenario and use individual characteristics to evaluate variation in responses to the scenario. Previously published vignette studies therefore control for situational factors by exposing

all respondents to the same situational dynamics. While these studies are powerful in that they allows researchers to hold situational factors constant, they do not allow for an explicit study of situational factors. As standard vignette designs present all respondents with the same scenario, there is no variance in situational factors. In order to assess the importance of situational factors, these factors must vary across vignettes. This allows for research to evaluate how different strains produce different emotional and behavioral responses. I describe a factorial vignette methodology that allows for this type of analysis in Chapter 3.

Based on the first section in this Chapter, I argue that specific situational factors (like provocation, aggressive cues, and the presence of an audience) act as situational strains. Provocation and the presence of aggressive cues, for example, are the presentation of threatening or noxious stimuli, while the presence of an audience in a conflict might enhance the effect of provocation. I hypothesize that most people would feel uncomfortable exposed to these types of situational stimuli. Therefore, I conceptualize situational stimuli as situational strains. Agnew (2006) argues, however, that subjective strain is also important to consider. Even if provocation, aggressive cues, and the presence of an audience are objective strains in that most people would find them uncomfortable in a situation involving interpersonal conflict, there may be variation in how much discomfort people experience as a result of these factors. Taken together, this produces in two general hypotheses regarding situational strain:

> *Hypothesis 9: People are more likely to respond with violence when faced with higher levels of situational strain.*
>
> *Hypothesis 10: People are more likely to respond to violence when faced with higher levels of subjective strain.*

The empirical literature on general strain theory supports these hypotheses. A number of studies describe a positive relationship between strain and crime (see for example Agnew and White, 1992; Broidy, 2001; Tittle et al., 2008, for detailed reviews, see Agnew 2006a, 2006b). A situational analysis of general strain theory also allows for an examination of the mediating and conditioning processes in general strain theory. According to general strain theory, strain produces emotional responses that sometimes lead to criminal coping. Emotional responses, therefore, mediate the relationship between strain and crime. Therefore, the mediation hypothesis is:

> *Hypothesis 11: Situational anger and fear reduce or mediate the relationship between strain and violence.*

The general strain conditioning hypotheses suggest that individual-level traits moderate the effect of strain and violence. Specifically, Agnew et al. (2002) argue that people with less self-control and with a negative emotional disposition are more likely to engage in violence as a result of strain. Therefore, the moderation or interaction hypotheses are:

> *Hypothesis 12: The effect of strain on crime is greater for people with less self-control.*
>
> *Hypothesis 13: The effect of strain on crime is greater for people with negative emotional dispositions.*

General Strain Theory & Gender

One of the most robust findings in all of criminology is that males are significantly more likely to engage in crime and especially violent crime than women (Campbell, 1993; Kruttschnitt, Gartner and Ferraro, 2002; Steffensmeier and Allan, 1996). Put simply, "women are always and everywhere less likely than men to commit

criminal acts" (Steffensmeier and Allen, 1996: 459). This gender gap is even more pronounced for acts of violence.

Though there is theoretical debate about the types of theories needed to address the gender gap (Belknap, 2007), some traditional theories of crime purport to explain gender differences in criminality. General strain theory, for example, provides a set of hypotheses that explain the gender gap in crime. Specifically, general strain theory suggests that men and women respond differently to situational factors. According to Broidy and Agnew (1997), there are at least two mechanisms that may link gender differences in situational factors to the gender gap in violence. First, it is possible that men are more likely to be in situations that that are conducive to violence. I refer to this as the exposure argument. In other words, while situational factors can create pressures to engage in violence, men may experience these pressures at a greater rate than women. This is not simply an exposure to strain argument. Broidy and Agnew (1997) suggest that men and women experience similar levels of strain, which implies that the volume of strain cannot explain gender differences in crime. Rather, this is a content of strain argument. Though men and women may experience similar amounts of strain, it is possible that men are more likely to experience the types of strain that are likely to result in violent behavior. Though interesting, this line of argument is best suited for explaining gender differences in criminality. Given my explicit focus on specific situational events, I am less interested in the amounts and types stressful situations that men and women encounter and more interested in differential responses to specific situational factors.

The second argument presented by Broidy and Agnew (1997) addresses gender differences at the situational level. This argument states that men and women respond to

situational pressures in different ways. This contention is supported by a wide body of research offering various sociological, psychological, and evolutionary explanations for such differences (Broidy and Agnew, 1997; Campbell, 1993; Mirowsky and Ross, 1995; Vigil, 2007, 2008). In terms of violence, it is important to note that men are more likely to respond to stress with anger, while women are likely to respond to stress with a variety of emotions, including anger, fear, and guilt (Broidy and Agnew, 1997; Campbell, 1993; Ganem, 2010; De Coster and Zito, 2010).

These gender differences in emotional responses to situational stimuli are important and may help explain gender differences in violence. Research links anger to antisocial behavior (Agnew and White, 1992; Broidy, 2001; Vigil, 2009), suggesting that the anger response to strain, which both men and women experience, is expected to increase the likelihood of violence in a given situation. The other emotional responses, like fear, however, may serve to reduce the likelihood of violence in a given situation. Vigil (2009), for example, suggests that situational fear is likely to lead to withdrawal or flight behaviors. The fear response to strain, therefore, is expected to decrease the likelihood of violence in a given situation. Men are hypothesized to be more likely to engage in violence because they respond to situational factors with only anger, while women respond to situational stimuli with a variety of emotions.

Literature on the general strain gender arguments is largely supportive of Broidy and Agnew's hypotheses. Mazerolle (1998) suggests that the general strain process is operant for men and women, but that men and women have different emotional and behavioral response to strain. Jang and Johnson (2005) show that these gender differences are at least partially explained by the fact that women are less likely than men

to respond to strain with emotional responses that lead to aggressive behavior. A wide body of research suggests that while women are just as likely to experience anger as men, women are also likely to experience a concomitant host of emotions, which may dull the effects of anger (Broidy, 2001; Ganem, 2010; De Coster and Zito, 2010). Piquero and Sealock (2004) remark that the gender differences that they observe in emotional responses may indicate that men experience more episodic forms of anger than women, which would suggest that the social psychological strain-anger process is better at predicting male than female violent behavior. Despite this body of evidence supporting Broidy and Agnew's (1997) claims regarding gender and strain, no research has examined gender differences in a situational context.

General strain theory suggests several hypotheses regarding situational stimuli and gender. First, general strain theory argues that there are gender differences in how men and women respond to situational stimuli. More specifically, situational stimuli are expected to be equal predictors of anger for men and women, but stronger predictors of fear for women than men. Beyond emotional responses, situational factors are also expected to have a larger effect on male violence than female violence. This implies, therefore, that gender differences in the relationship between situational factors and violence should be reduced in analytical models that control for emotional responses. These gendered hypotheses are as follows:

> *Hypothesis 14: Women are less likely than men to respond to situational stimuli with violence.*
>
> *Hypothesis 15: Women are expected to experience anger and other emotions in response to situational factors, while men are expected to primarily report anger. These gender differences in emotional responses account for gender differences in responses to situational stimuli.*

Research evaluating hypotheses 9 through 15 is presented in chapter 6. The following chapter describes the research design utilized to evaluate the three research questions discussed in this chapter.

CHAPTER 3: RESEARCH DESIGN

In order to quantitatively analyze the relationship between situational factors and violence and the broader relationship between situational and individual-level factors and violence, I utilize a factorial vignette survey. Traditional vignette studies present survey respondents with hypothetical situations and ask respondents to judge the scenarios and to predict how they might feel and respond if placed in that situation. In this sense, traditional vignette studies allow researchers to control for situational factors (in that each respondent is exposed to the same vignette). Factorial vignettes, conversely, present respondents with randomly generated scenarios in which elements of the situation systematically vary from vignette to vignette. This design goes beyond controlling for the situation and allows for an analysis of situational factors. For example, one version of a vignette might depict a violent situation in which there is verbal provocation, while another might depict a situation in which there is a physical form of provocation (e.g. shoving). By having elements like provocation randomly vary from vignette to vignette, it is possible to analyze the relationship between type of provocation and behavioral intentions (what a person would want to do if faced with a given situation).

The traditional vignette methodology is recommended by theorists (Agnew, 2006b: 93) as a promising method for examining the validity of theoretical arguments. This is because the vignette methodology utilizes the event or scenario as the unit of analysis, while more traditional research designs utilize the person as the level of analysis. To the degree that many sociological and criminological perspectives describe the process through which behavior occurs, it is important to conduct research that focuses on the event. The vignette methodology has been utilized in several studies on crime and delinquency and particularly in research examining the general strain and

control balance perspectives (Curry and Piquero, 2003; Ganem 2010; Hickman et al., 2001; Mazerolle and Piquero, 1997, 1998; Mazerolle, Piquero, and Capowich 2003**;** Piquero and Hickman, 1999; Piquero and Piquero, 2006). Interestingly, these vignette studies typically provide more support for theoretical hypotheses than traditional research methods.

Though traditional vignette studies contribute to the literature on crime and delinquency, like traditional survey designs, they do not allow for an examination of situational factors. Almost all vignette studies on crime and delinquency present survey respondents with the same scenario. These studies then use regression analysis to examine the correlation between individual characteristics (gathered as part of the survey effort) and responses to the scenario. As noted in Chapter 2, this research design is powerful in that it allows researchers to hold situational factors constant. However, this is also the weakness of the design, because it cannot test the relative importance of various situational factors, since these factors do not vary.

In the current research, I conduct a factorial vignette study in which the content of potentially violent situations varies from participant to participant. Factorial surveys consist of dimensions and levels (Rossi and Anderson, 1982). The dimensions are the factors that are allowed to vary across scenarios, while the levels are the different formulations for each of the factors. In the context of violent situations, the dimensions include concepts like provocation, audience effects, and appearance. The factors for the provocation dimension, for example, could include "verbal provocation" and "physical provocation" (e.g., shoving or striking). Each unique combination of dimensions across

factors is called a "factorial object" while the whole of these combinations is called the factorial object universe.

In addition to allowing for an examination of situational factors, the factorial vignette design has two other important qualities. First, given that it asks respondents how they would respond to a hypothetical situation, factorial vignettes allow for the analysis of more serious forms of behavior than traditional experimental designs. Second, as situational factors are randomly generated from vignette to vignette, these factors are orthogonal with each other and with individual-level characteristics. This allows for situational factors to be studied without multicollinearity concerns. While both of these qualities are strengths of the factorial vignette design, they are accompanied by corresponding weaknesses. First, researchers can only use factorial vignettes to study behavioral intentions. Experimental designs can actually study behavioral outcomes, though for research on violence these tend to be trivial expressions of aggression. Second, in natural data, situational factors may actually be correlated with each other and with individual-level characteristics. Therefore, while the factorial design allows for a controlled examination of situational factors, in reality, these factors may not operate independently.

Traditionally, the factorial vignette survey design has been used to examine social judgments and definitions. Rossi and Anderson (1982), for example, provide an example of a factorial vignette survey that was designed to determine what people view as sexual harassment in academic settings, while Garrett (1982) uses the factorial survey approach to evaluate how people define child abuse and hate crimes (see also Lyons, 2008). In the criminological literature, factorial surveys have also been utilized to evaluate perceptions

of blameworthiness (Lyons, 2006) and the appropriateness of punishment (Rossi, Simpson, and Miller, 1985; Durham, 1986). Nagin and Paternoster (1993) provide one notable exception in that they utilized the factorial vignette methodology to examine how target attractiveness, risk, and the perceptions of costs and benefits influenced intentions to engage in drunk driving, theft, and sexual assault. They found that variation in situational factors affects perceptions of risk and benefits, which in turn, influences behavioral intentions. The current study builds on this approach by studying a public form of expressive behavior, while engaging the sociological and psychological literatures for guidance on which situational factors should vary across scenarios.

Vignettes

In the current study, survey respondents from 11 introductory sociology courses at two institutions of higher education in the Southwest United States reported how they would feel and respond if placed in a scenario depicting conflict. Respondents also responded to a range of demographic, attitudinal, and experiential survey items. For the sake of description, one institution is referred to as the University, while the other is referred to as the College. The enrollment at both institutions is over 20,000. The College offers a 2 year associates degree, while the University offers a 4 year BA degree. The average age of students enrolled in the College is 29, while the average age of students at the University is 26. Approximately 57% of students at both sites are female. Both institutions are ethnically diverse, with 40% of the College students described as Hispanic and 36% of the University students described as Hispanic.

Students were recruited only from introductory sociology courses to minimize the risk of respondents filling out duplicate surveys. This was an important consideration for the data collection effort, as the survey was completely anonymous and utilized a consent document that did not require a signature. Overall, 751 college students participated in the research. 548 of the respondents are students at the University; the other 203 are students at the College. The baseline sample size is 748 however, as three respondents skipped the vignette parts of the survey. The respondents are, on average, younger than the average students from the populations from which they were drawn, though this is unsurprising given that recruitment occurred in introductory sociology courses (where there is likely an overrepresentation of freshmen). The sample is representative of the broader populations of the educational institutions in terms of gender, though there is a slight over representation of students that identify as Hispanic/Latino in the survey respondents.

Though college students are not representative of the general population, I argue that this is an appropriate sample for the current study. I view this project as an exercise in theoretical development. My primary goal is the development of the situational perspective, not necessarily the generalization of specific results. Given this goal, I believe it is sensible to focus on college students as this makes the research comparable to prior vignette research, which has also typically utilized college samples (Mazerolle, Piquero, and Capowich 2003**;** Ganem 2010). Moreover, college students reflect a theoretically relevant population in because college students typically fall into the 18-26 year old age range, which is at an elevated risk of engaging in crime (Farington, 1986).

Surveys presented each respondent with three randomly generated versions of a situational provocation scenario. Since the unit of analysis for this research is the situation and not the individual, this results in a sample size of 2,244 (748 x 3), though the actual sample size used for analyses is slightly smaller due to missing data (see table 3.2 and 3.3 for response rates for specific variables). The vignettes used in the current research depict a confrontation between two people at a party stemming from an unwanted overture toward one party's significant other. Qualitative research indicates that sexual/romantic overtures directed at one's partner can lead to violence (Graham et al., 2010). This type of scenario is particularly relevant for the population studied in the current research, as college students may be more likely than individuals from other age groups to attend parties and to get into conflicts related to sexual/romantic overtures. Conceptually, this vignette is based on a scenario used in previous research on violence (Ganem 2010; Mazerolle and Piquero, 1997, 1998; Mazerolle, Piquero, and Capowich 2003). I then utilized research in psychology and social psychology to select aspects of the vignette to vary from scenario to scenario. The general scenario and the proposed factorial elements were then tested in a series of three focus groups (with a total of 21 participants) and edited. These focus groups consisted of college students from the same institutions who have a similar demographic profile as the survey sample.

The text for the male version of this vignette is displayed below, with the italicized sections indicating dimensions that randomly vary from vignette to vignette. These dimensions and the associated factors are described in table 3.1. Female survey respondents were presented with a similar scenario, with minor wording changes made to

reflect gender differences in appearance and provocation. A sample of version of the female vignette is presented in Appendix A.

> It's Friday night and you and your partner, who you have been dating for six months, are at a party and are having a few drinks. *The room you are in is crowded.* After finishing your drink, you excuse yourself and go to the bathroom. When you return, you see that a young *white male* is sitting in your spot and is flirting with your partner, who appears visibly annoyed by this person. You notice that this person is *about your size* and is *clean cut and wearing a polo shirt and khaki pants*. You walk over and ask the guy to move so that you can have your seat back. The other male stands up and gets in your face. You don't like this very much, so you reach for your partner's hand, indicating that you'd like to leave. The other male *calls you an asshole and tells you to get lost*. *Your partner moves to your side and urges you to walk away*. *The room suddenly gets quiet, as everyone turns to watch and see what happens next*. *The other male continues to stare at you*.

Table 3.1. Vignette Dimensions

Familiarity:
The room you are in is crowded
The room you are in is crowded and you see a lot of your friends
Race:
White
Black
Hispanic
Size:
about your size
significantly smaller than you
significantly larger than you
Clothing/Style:
clean cut and wearing a polo shirt and khaki pants
wearing baggy jeans, a muscle shirt, and is covered in tattoos
is unkempt and is wearing plaid pants and an orange jacket
Provocation:
calls you an asshole and tells you to get lost
shoves you hard, nearly causing you to fall over
Partner:
Your partner moves to your side and urges to you walk away
Your partner calls the other guy an asshole.
Audience:
The room suddenly gets quiet, as everyone turns to watch and see what happens next
The other people in the room do not seem to be paying any attention to what is going on
Aggressive Cues:
The other male continues to stare at you
The other male makes a fist and looks ready to fight
The other male mumbles something under his breath and walks away.

Each of the dimensions included in this vignette is intended to reflect the situational inputs described in Chapter 2. The race dimension indicates whether the other party in the potentially violent situation is white, black, or Hispanic. Research suggests that the race of people in a given situation (or at least, perceived race) influences perceptions of hostility and trustworthiness. Specifically, this literature suggests that black individuals are less likely to be trusted and more likely to be treated with hostility (Devine, 1989; Bargh, Chen, and Burrows, 1996) and that people tend view members of their own race/ethnicity with more trust (McCormick and Kinlock, 1986; Miller, 1989; Sellers and Shelton, 2003; Kahatsu et al., 2000). This dimension allows for an examination of the situational role of race in violent situations.

The size dimension indicates the physical stature of the other person in the party in the scenario. Research indicates that size is an indicator of capacity (Vigil, 2009) and of dominance (Watkins et al., 2010). Capacity and dominance cues suggest the relative risk of aggressing against this person. The clothing/style dimension indicates the general appearance of the other party in the vignette. Research suggests that physical appearance is related to perceptions of status (Anderson, 1999; Frisén, Jonsson, and Persson, 2007; Harris, 1974; Kennedy and Baron, 1993; Messerschmidt, 2012; Sweet, 2010). This research suggests that people dressed in high status clothes are less likely to have aggression directed towards them, while people that are perceived to be dressed oddly or unusually are more likely to be treated with hostility. Ethnographic research also suggests that people dressed in urban street attire and people with tattoos may be viewed as more dominant and as more risky to aggress against (Anderson, 1999; Wohlrab, 2009).

The provocation dimension indicates whether the other person in the vignette engages in verbal or physical provocation. Provocation is expected to increase the likelihood of violent responses (Anderson and Bushman, 2002), as provocation produces negative affect, creates frustration, and increases physiological and psychological arousal. The levels of this dimension are intended to create various degrees of provocation, as Collins (2008) suggests that verbal provocation is often not enough to produce a violent encounter. Similarly, the aggressive cues dimension indicates whether the other party involved in the potentially violent situation presents an obvious aggressive cue (closed fists), a neutral cue (continues to stare at you), or a withdrawal cue (walks away). Research suggests that the presence of visible aggressive cues can increase the likelihood of aggression by priming aggressive memories (Carlson, Marcus-Newhall, and Miller, 1990). In this particular case, the presence of this aggressive cue may also hint at the other party's behavioral intentions and therefore may serve as a further measure of provocation.

The partner, audience, and familiarity dimensions reflect the behavior of the people in the setting who are not directly involved in the potentially violent situation. Research on audience effects suggests that the presence of an audience can increase the likelihood of a violent response, as the presence of an audience can enhance feelings of anger (Felson, 1982; Kim, Smith, and Brigham, 1998; Miller, 2001). Some research, however, suggests that the presence of others that disapproves of violence can reduce the likelihood of aggressive behavior (Borden, 1975). Both the presence and absence of a general audience and more specific partner reactions are included, as it may be the case that these inputs have differential effects on behavioral intentions.

In summary, the factorial element of the vignette provides the following situational variables: audience familiarity, audience attention, other person's race, other person's style/appearance, size difference between respondent and other person, form of provocation, the presence of aggressive cues, and situational social support/pressure toward violence. For the purposes of analysis, these variables were recoded into dummy variables. For example, the provocation variable was recoded into a variable called physical provocation (1 = the other person shoved the respondent in the vignette, 0 = the other person verbally insulted the respondent in the vignette).

The questionnaire collects a variety of information from respondents regarding how they would feel and behave if they were actually in the situation. Respondents are asked, on a scale from 0 (definitely would not do this) to 10 (definitely would do this), how likely they would be to punch or strike the other person. Therefore, the likelihood of engaging in violence, as measured by how likely respondents think they would be to punch or strike the other person, is the dependent variable for the analyses in Chapters 4, 5, and 6.

In addition to collecting data on behavioral responses, the survey also collects data on emotional responses to the vignettes. Specifically, respondents indicate, on a scale from 0 (not at all) to 10 (extremely), how stressed, angry, and afraid they would feel if placed in each situation. These items represent situational strain, situational anger, and situational fear variables. These variables are important for assessing theoretical arguments suggesting that emotional responses influence behavioral responses to stress (for example, see Agnew 1992). I also collect information on how wrong respondents think it would be to punch or strike the other person in each scenario. This variable

provides a measure of situational morality, which has been hypothesized to be an important part of the etiology of violence (Wikström, 2006). Table 3.2 provides descriptive statistics on how respondents believe they would respond and feel if in a given scenario.

Table 3.2. Descriptive Statistics for Responses to Situational Stimuli

Variable	Mean	Std. Deviation	Minimum	Maximum	N
Intention to punch or strike	3.566	3.513	0	10	2228
Wrong to punch or strike	5.294	3.243	0	10	2228
Stressed	7.093	2.810	0	10	2225
Angry	7.752	2.530	0	10	2229
Afraid	3.611	3.245	0	10	2225

These descriptive statistics suggest that there is substantial variability in how respondents believe they would respond and feel if placed in a given situation. On average, however, respondents reported ambiguous responses regarding the wrongness of engaging in violence, generally thought that they would feel angry in response to events in the scenario, and anticipated not feeling afraid by the events in the scenario.

I also collect data about the degree to which respondents view the vignettes as realistic using a Likert-scale item. These items allow for a general validity check. The most obvious critique of this method is that factorial vignettes measure violent behavioral intentions and not actual violent behavior. In other words, it may be the case that what people would actually do when faced with a stressful situation is different than what they hypothetically intend to do. Research suggests, however, that there is a strong correspondence between behavioral intentions and actual behavior when vignettes are

realistic and contextually familiar to respondents (Fishbein and Ajzen, 1975; Green, 1989; Jensen and Stitt, 1982; Kim and Hunter, 1993). In order to maximize the likelihood that respondents viewed the scenario as realistic, the vignette utilized in the research is based on a scenario that has been found to be realistic in prior research (Mazerolle, Piquero, and Capowich 2003**;** Ganem 2010). Moreover, the scenario and the factors that vary within the scenario were evaluated in a series of focus group sessions with a population that mirrored the characteristics of the larger sample and were revised to reflect the suggestions of the focus group participants. The majority of scenarios were described as realistic or very realistic (76.8%). A smaller percentage (14.3%) was described as neither realistic nor unrealistic. Only 8.9% of scenarios were described as unrealistic or very unrealistic. In order to determine if there were any specific situational factors that resulted in vignettes being described as unrealistic, I examined bivariate correlations between all of the situational variables and a dichotomous measure of unrealism (1 = unrealistic or very unrealistic). The largest positive correlation between a situational variable and the unrealistic variable is 0.0438 (for the correlation between the other person is Black and unrealistic). This correlation is likely reflective of the smaller Black population in the region where the survey was conducted. Interestingly, the largest negative correlation was between other Latino and unrealistic (*r = -0.0605*), which is likely indicative of the sizable Latino/Hispanic population in the region. Regardless, both of these correlation coefficients are quite small, suggesting that no specific situational factor is associated with a lack of realism. As a sensitivity analysis, I reran the models presented in Chapter 4 on the 1647 cases that were described as realistic or very realistic (note that this is 73.4% of all cases, due to missing data on variables included in Model 4

regressions). Results were, in terms of signs and significance, similar to the results generated from the full sample.

Individual-Level Data

In addition to the situational variables described above, the questionnaire also included items measuring a variety of individual-level respondent characteristics. A full list of questions is included in a copy of the male version of the survey included in Appendix B. This included basic demographic information like age, gender, class, and race/ethnicity. Age is measured simply as years of age. Gender is measured using a dummy variable indicating whether a respondent is male. Class is measured using a series of dummy variables that indicates whether a respondent describes their upbringing as working class, lower middle class, or upper middle class. Race/ethnicity is measured using a series of dummy variables indicating whether a respondent self-identified as White non-Hispanic, Black non-Hispanic, Hispanic, or Other.

The survey also included items designed to measure a variety of theoretical constructs at the individual level, including: self-control, strain, prior violence experiences, peer violence, and moral attitudes toward violence. The self-control measure is based on the Grasmick et al. scale (Grasmick et al., 1993). While the original Grasmick et al. scale includes 24 items, I utilize a subset of 16 items that have been found to have more construct validity (Higgins, 2007). Like Grasmick et al. (1993) and recent researchers interested in self-control (Antonaccio and Tittle, 2009), I converted each self-control question to a z-score and created the self-control measure by summing these z-scores. I also estimated all models presented in Chapters 4, 5 and 6 using alternative measures of self-control (principal component and raw additive scales) and found that the

form of the self-control variable did not change the result. In terms of situational responses, both general strain theory and situational action theory suggest that response to situational provocations may be contingent on self-control/the ability to exercise self-control.

Strain is measured using the 10-item version of the Perceived Stress Scale (PSS-10) (Cohen, Karmarck, and Mermelstein, 1983). The PSS-10 is a common stress index used in psychological research and has a high degree of validity and reliability (Cole, 1999; Roberti, Harrington, and Storch, 2006) .Though most criminological research measures strain by tabulating the number of stressful events that have occurred over the past year, I opted to use a shorter research instrument in order to keep the questionnaire to a manageable length. The PSS-10 indicates the amount of stress that a person has experienced within the last month, which fits with Agnew's suggestions that subjective strains that have occurred more recently are especially important (Agnew, 1992, 2001; Froggio and Agnew, 2007). Specifically, the PSS-10 asks a series of 10 questions to which respondents are asked to indicate how often (ranging from 0-never to 4-always) they have experienced stressful conditions during the last month. This variable ranges from a score of 0 (not at all stressed) to 40 (extremely stressed). Given the situational focus of this research, I am more interested in the relationship between situational strain and violence than the relationship between individual-level life strain and violence. Theoretically, however, this is an important variable as it allows for a contrast between the efficacy of individual and situational measures of strain. Moreover, general strain theorists suggest that prior levels of strain may condition how people respond to current strains (Slocum, 2010).

Trait or dispositional anger is measured using a series of questions from the anger and hostility subscale of the Brief Symptom Inventory (BSI) (Derogatis and Melisaratos, 1983). The BSI, which prior research describes as a valid and reliable scale, is a clinical scale used to measure a variety of psychological symptoms, including anger (Derogatis and Melisaratos, 1983). Respondents were asked to indicate how often they exhibit 6 different angry or hostile behaviors (arguments, feeling angry, outbursts of temper, urges to harm others, urges to break things, feelings of annoyance) on a scale ranging from never (0) to often (3). These items were summed to create an additive index ranging from 0 (very low trait anger) to 18 (very high trait anger).

The survey includes two questions measuring prior experiences with violence. These items are summed to indicate how many times they have engaged in minor and serious violent incidents within the past year. This variable ranges from 0 to 6, where a 0 indicates no violent experiences within the past year, while a 6 would indicate several minor and serious incidents. It is unclear whether it is the frequency or severity of prior violence experiences that are most important for predicting violent intentions, so this measure combines them. Peer violence is measured using the sum of responses to two questions that ask respondents to indicate if none, some, or most of their friends have been involved in minor or serious violent incidents over the past year. This variable ranges from 0 to 4, where a 0 indicates that none of their friends have engaged in violence over the past year, while a 4 would indicate that most of their friends have engaged in minor and serious violence over the past year. In addition to these measures of prior and peer violence, various dummy variable constructs were also used. Dummy variables for prior respondent violence produced results that were identical to those

reported in Chapters 4-6. Dummy variable constructs for peer violence (including dummy variables representing any peer violence, peer minor violence, and peer serious violence) were, in general, less likely to be statistically significantly related to violent intentions than the measures reported above.

Moral attitudes towards violence are measured by a question that asks how wrong (ranging from 0, not at all wrong, to 4, very wrong) it is to engage in violence. This item is intended to measure global morality regarding violence, which is an important individual-level concept according to situational action theory (Wikström, 2006). Similar "wrong-doing" measures have been utilized in prior research on situational action theory (Antonaccio and Tittle, 2008; Gallupe and Baron, forthcoming; Wikström and Svensson, 2010). Prior research on morality utilizes composite measures of morality. Respondents are typically asked how wrong it would be to conduct a variety of delinquent behaviors. Here, I use a single measure of moral attitudes, as it seems as though the relevant moral attitude for predicting violent behavioral intentions is attitudes towards violence. Attitudes toward theft and drug use for example, seem less relevant.

Descriptive statistics for all individual-level variables are displayed in Table 3.3 below. There is a fair amount of variability in terms of gender and ethnicity, with roughly 43% of the sample male and nearly even proportions of respondents identifying as non-Hispanic White or Latino/Hispanic. Approximately 5% of respondents identified as Black or African American (and not White or Latino), with the remainder of respondents divided amongst the Native American, Asian, and other categories. The gender and racial/ethnic breakdown of respondents is expected, given the demographics of the institutions where recruitment occurred. There is also considerable variability in

class, with 48% respondents indicating that they grew up in an upper middle class environment and the remaining indicating that they group in either a lower middle or working class family. The prior violence experiences and peer violence experiences suggest that the college population, as a group, is not particularly violent. Similarly, the respondents were, on average, likely to indicate that it was wrong to very wrong to engage in violence.

Table 3.3 Demographic Characteristics of Respondents

Variable	Mean	Std. Deviation	Minimum	Maximum	N
Age	21.363	5.987	18	54	2165
Male	0.426	0.494	0	1	2237
Upper middle class	0.481	0.500	0	1	2236
Lower middle class	0.306	0.461	0	1	2236
Working class	0.213	0.408	0	1	2236
White Non-Hispanic	0.450	0.498	0	1	2237
Latino or Hispanic	0.459	0.498	0	1	2237
Black or African American	0.052	0.222	0	1	2237
Self-Control	0	7.186	-23.572	31.270	2220
Accumulated Strain	13.198	5.847	0	36	2208
Trait Anger	5.637	3.525	0	18	2236
Prior violence	0.462	0.933	0	6	2225
Peer violence	0.834	0.986	0	4	2222
Attitudes toward violence	2.478	0.732	0	4	2219

Analytical Technique

I use regression analysis to evaluate the hypotheses presented in Chapter 2. There is some disagreement about the types of regression analyses that are appropriate for factorial data. Rossi and Anderson (1982) suggest that standard regression techniques, like OLS regression, may be appropriate for the analysis of factorial survey data. Others have suggested that the analysis of factorial survey data requires more advanced

techniques, like multi-level modeling due to clustering that occurs when respondents answer multiple versions of the same vignette (Hox, Kreft, and Hermkens, 1991). In Chapters 4, 5 and 6, I present a series of multi-level regression models examining the individual and situational predictors of violent behavioral intentions. I opt to present multi-level models because the responses in my data cannot be treated as independent due to the fact that each respondent evaluated three randomly generated vignettes. The intra-class correlation (ICC) is one method of measuring data dependency. The ICC for a random intercept only model predicting responses to the question "how likely would you be to punch or strike this person" is 0.480. This suggests that the clustering of responses by respondent matters and that an assumption of independence would be unfounded. Multi-level or hierarchical models account for dependency by utilizing random effects coefficients to model the clustering of responses. A variety of diagnostics were performed on the models presented in Chapters 4, 5, and 6. The only notable problem with these models is that the residuals are not distributed normally. The normality assumption also applies to mixed models, as multi-level models also utilize hypothesis tests for regression coefficients that rely on morality. However, the normality assumption is commonly viewed as the least important of the regression assumptions as this does not affect the regression coefficients (only tests of significance) and its effect on hypothesis testing diminishes for large samples (Hanushek and Jackson, 1977: 68; Lumley et al., 2002).

CHAPTER 4: SITUATIONAL FACTORS AND VIOLENT BEHAVIORAL INTENTIONS

Research Question: Are situational factors associated with violence?

The purpose of this chapter is to evaluate the degree to which situational factors predict violent behavioral intentions. Building on the literature presented in Chapter 2, I first evaluate the degree to which the content of a situation (provocation, aggressive cues, and the presence of an audience) and the characteristics of the actors involved in a situation predict violent behavioral intentions. Specifically, I evaluate the following hypotheses:

> *Hypothesis 1: Potentially violent situations characterized by higher levels of provocation and the presence of aggressive cues are more likely to result in violent outcomes.*
>
> *Hypothesis 2: The presence of an audience influences the likelihood of violence in potentially violent situations.*
>
> *Hypothesis 3: The relative relational status of participants in a potentially violent situation, indicated by capacity and trustworthiness cues like the race, size, and appearance of participants influences the likelihood of violence in potentially violent situations.*

Next, I evaluate the degree to which individual factors moderate the relationship between situational factors and violence. Specifically, I evaluate the following hypothesis:

> *Hypothesis 4: There is an interactive relationship between individual-level factors and situational predictors of violence. The effect of situational factors on violence is expected to be greater for those with characteristics and backgrounds conducive to violence.*

Three multi-level regression models are presented in Table 4.1. These linear mixed models test the effects of situational characteristics and individual characteristics on violent intentions. The multilevel modeling approach controls for the fact that each individual responds to 3 situational scenarios by nesting situations (level 1) within people (level 2) and by generating a random intercept for each respondent. In multi-level modeling, restricted maximum likelihood (REML) methods are utilized to examine the importance of random effects, while maximum likelihood estimation is preferred for fixed effects (West, Welch, and Galecki, 2006). Preliminary REML analysis suggested that the random effects coefficient for each of these models is statistically significant, suggesting that it is important to control for clustering. The results presented below focus on fixed effects coefficients and utilize maximum likelihood estimation. The sample size (n=2146) is smaller than the total sample size of 2244 described in Chapter 3 as cases with missing data were omitted from the analysis.

The first model includes only situational factors as independent variables (level 1 variables) and a random intercept for each respondent. Chapter 2 included a discussion of various situational factors hypothesized to predict violence. These situational predictor variables include dummy variables representing physical provocation (versus verbal provocation), partner antagonism (versus partner passivism), race of the other person in the situation (dummy variables for Black and Latino, with White as the reference category), dress/appearance of the other person in the situation (dummy variables well-dressed and urban dressed, with oddly dressed as the reference category), audience familiarity (versus not familiar with crowd), audience attention (versus audience not paying attention), and dummy variables representing aggressive/withdrawal cues

(dummy variables for aggressive cues (makes fist) and withdrawal cues (walks away), with neutral cues (stares) as the reference category).

In support of hypothesis 1 and hypothesis 2, Model 1 suggests that physical provocation, audience attention, the presence of aggressive cues, and the presence of withdrawal cues are statistically significant predictors of violent behavioral intentions. Specifically, respondents are more likely to indicate violent behavioral intentions in situations characterized by physical provocation and aggressive cues, and in scenarios in which the audience watched the conflict unfold.

Conversely, the results suggest that respondents are less likely to indicate violent behavioral intentions in situations in which the other person presented withdrawal cues. Consistent with hypothesis 3, the characteristics of actors within a situation also matter, as the race and size of the other person involved in a scenario are borderline statistically significant predictors of violent behavioral intentions. Violent intentions are reduced when the other individual is physically larger or described as Black. It should be noted, however, that the size and race variables are only borderline statistically significant (p-value < 0.10). Log-likelihood tests confirm that the sets of dummy variables for other's race (χ^2 =0.3136) and other's size (χ^2 =1.234) do not significantly improve model fit.

These results broadly suggest that situational factors are important predictors of violent behavioral intentions. Model 2 includes situational factors (level 1) and individual-level factors (level 2) as independent variables. The level 2 variables included in model 2 are: low self-control (high values indicate lower levels of self-control), prior violent experiences, peer violent experiences, dummy variables for gender, ethnicity, self-identified class, and age (in years).

Table 4.1. Situations and Violent Intentions: Random-Intercept Multilevel Regression Coefficients

	Model 1	Model 2	Model 3
Situational Factors (level 1)			
Physical provocation	1.225**	1.207**	1.441**
	(0.099)	(0.100)	(0.232)
Partner antagonism	0.025	0.051	0.057
	(0.100)	(0.101)	(0.100)
Other Black	-0.224+	-0.221+	-0.205+
	(0.121)	(0.121)	(0.120)
Other Latino	-0.103	-0.145	-0.127
	(0.123)	(0.124)	(0.123)
Other same size	-0.004	-0.043	-0.033
	(0.124)	(0.124)	(0.123)
Other larger	-0.205+	-0.224+	-0.225+
	(0.124)	(0.124)	(023)
Well dressed	0.042	0.052	0.037
	(0.121)	(0.122)	(0.121)
Urban dressed	-0.038	-0.022	-0.043
	(0.124)	(0.125)	(0.125)
Audience familiarity	-0.044	-0.003	-0.008
	(0.099)	(0.099)	(0.099)
Audience attention	0.241*	0.218*	0.220*
	(0.101)	(0.102)	(0.101)
Aggressive cues	0.269*	0.240*	0.223+
	(0.122)	(0.123)	(0.122)
Withdrawal cues	-0.701**	-0.707**	-0.706**
	(0.123)	(0.124)	(0.123)
Individual Factors (level 2)			
Low Self-Control	-	0.117**	0.118**
		(0.015)	(0.017)
Prior Violence	-	0.443**	0.450**
		(0.127)	(0.127)
Peer Violence	-	0.421**	0.422**
		(0.121)	(0.121)
Male	-	0.733**	0.458*
		(0.208)	(0.231)
Hispanic	-	0.685**	0.692**
		(0.214)	(0.214)
Other Race or Ethnicity	-	0.055	0.069
		(0.365)	(0.365)
Lower Middle Class	-	-0.357	-0.275
		(0.284)	(0.315)
Upper Middle Class	-	-0.516+	-0.104
		(0.268)	(0.295)
Age	-	0.001	-0.001
		(0.017)	(0.017)
Provocation X Male	-	-	0.510**
			(0.198)
Provocation X Upper Middle Class	-	-	-0.843**
			(0.256)
Provocation X Lower Middle Class	-	-	-0.188
			(0.279)
Audience X Low Self-Control	-	-	0.031*
			(0.017)
Constant	3.164**	2.327**	2.240**
	(0.208)	(0.530)	(0.538)
Random Intercept	2.802	2.409	2.403
	(0.085)	(0.079)	(0.078)
LL	-5410.366	-5130.859	-5122.162

Regression coefficients with standard errors in parentheses. * $p < 0.05$, ** $p < 0.01$.
* $p < 0.05$, ** $p < 0.01$. n = 2146

The results of model 2 reinforce the results of model 1. Controlling for individual-level factors, physical provocation, audience attention, aggressive cues, and withdrawal cues continue to be statistically significant predictors of violent behavioral intentions. The race and size of the provocateur continue to be borderline statistically significant predictors of violent behavioral intentions.

Interestingly, all individual-level variables except age are statistically significant predictors of violent behavioral intentions and in the expected directions. Individuals lacking in self-control as well as those with violent peers or prior experiences with violence are all more likely to report violent behavioral intentions. These results are supportive of the hypotheses of a number of criminological theories, including self-control theory (Gottfredson and Hirschi, 1990) and social learning theory (Akers, 1998). Males and Hispanics are also more likely to report violent behavioral intentions than females and Whites.

Given that model 2 includes all of the variables from model 1 and that both models are estimated using ML (as opposed to REML) techniques, it is possible to compare these models using a log-likelihood ratio test with 10 degrees of freedom (1 degree of freedom per variable added to the model). Log-likelihood ratio tests calculate twice the difference of the log-likelihood of nested models as a χ^2 statistic and compare it to a critical χ^2 value (with 9 degrees of freedom and α=0.01, critical $\chi^2 = 23.31$). If the χ^2 statistic calculated by examining the difference in the log-likelihood values is greater than the critical χ^2 value, then we can conclude that the additional variables significantly

improve model fit. The χ^2 value comparing model 1 and to model 2 is 559.014, suggesting that the inclusion of individual-level factors significantly improves model fit.

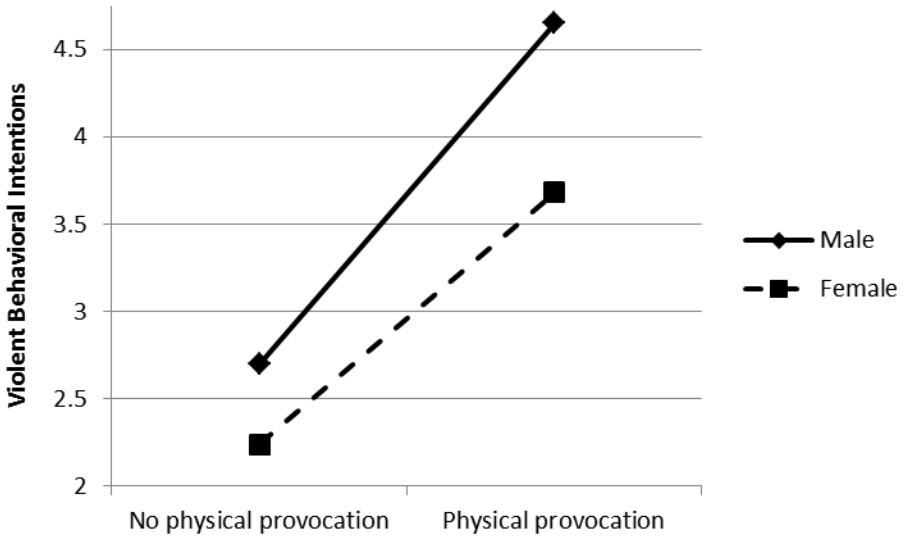
Taken together, the results of model 1 and 2 provide considerable support for the idea that situational factors are related to violence. The hypotheses that provocation, aggressive cues, and audience attention predict violent intentions are directly supported by the results of models 1 and 2. There is less support for the hypothesis linking relational status to violent intentions, as race of the other person is the only characteristic associated with violent behavioral intentions and this relationship fails the traditional test for statistical significance.

In addition to the independent relationships between situational factors and violence and individual level factors and violence, it is possible that the effect of situational factors on violence is contingent on individual-level characteristics. That is, it is possible that people with certain traits and characteristics are more likely to be affected by situational factors than others. In statistical terms, this is the idea that there is an interactive relationship between individual and situational factors. As discussed in Chapter 2, there are theoretical reasons to expect interactions between situational factors and individual-level variables like low self-control, gender, race, and class. To be thorough, however, I assessed all possible interactions between individual-level factors and situational factors in a series of regression models. The majority of these interaction terms, including those between race and situational variables, were not statistically significant. The third model presents the statistically significant interactions between individual and situational factors. These results suggest that there are statistically significant interactions between physical provocation and gender, physical provocation

and class, and the presence of the audience and self-control. A log-likelihood ratio test confirms that these interaction terms significantly improve model fit (χ^2 = 17.394). Visually, each one of these interactions is presented as an interaction plot in Figures 4.1 through 4.3.

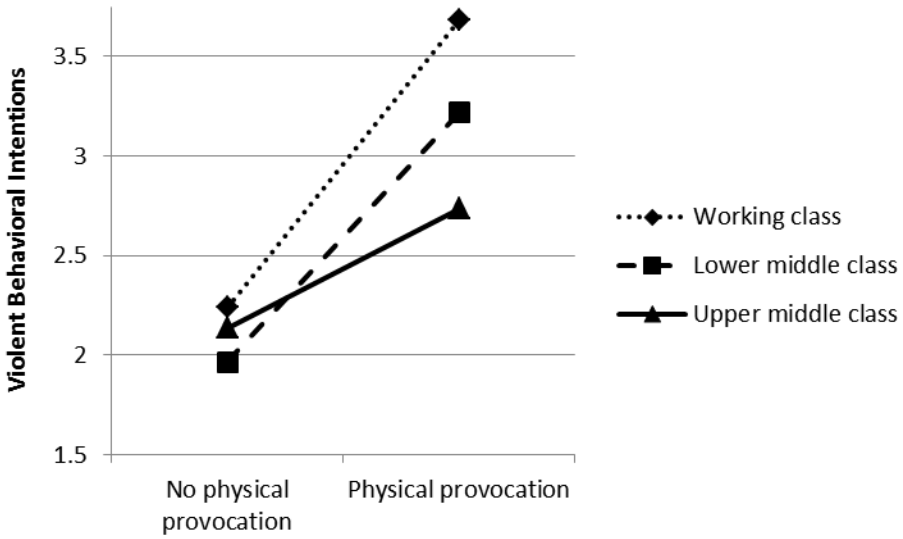
In terms of gender and physical provocation, Figure 4.1 demonstrates that while males are always more likely than females to indicate violent behavioral intentions, the difference between males and females is greater for scenarios involving physical provocation than for scenarios involving no physical provocation.

Figure 4.1. Interaction between Gender and Physical Provocation



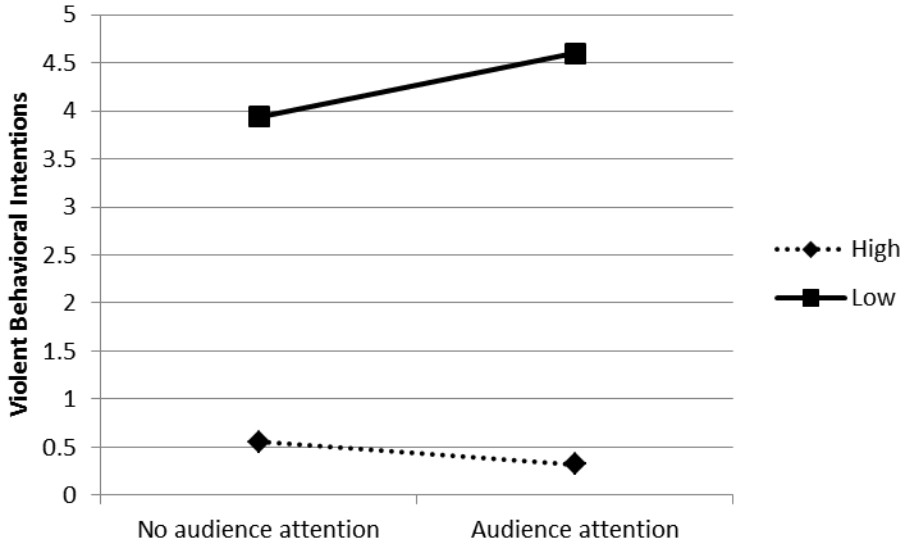
In terms of the interaction between class and provocation, Figure 4.2 visually demonstrates that the effect of physical provocation is lower for those that self-identify as growing up in upper middle class homes. Though provocation increases the likelihood an upper class respondent would indicate violent behavioral intentions, the increase is much greater for those that grew up in working class or lower middle class families.

Figure 4.2. Interaction between Class and Physical Provocation



And finally, figure 4.3 demonstrates the relationship between self-control and audience attention. Unlike the prior interaction plots which plotted average violent intention scores for various combination of dummy variables, self-control is operationalized as a numeric variable. The high self-control line refers to a hypothetical respondent that scored 1 standard deviation lower than the mean on the low self-control variable, while the low self-control line refers to a hypothetical respondent that scored 1 standard deviation above the mean on the low self-control variable (see Chapter 3 for details on how the low self-control variable was constructed). This plot suggests that while those with low levels of self-control are always more likely to indicate violent behavioral intentions than those with higher levels of self-control, the difference between these groups is greatest when the audience is described as paying attention to a given situation.

Figure 4.3. Interaction between Self-Control and Audience Attention



These results suggest that the effects of physical provocation and audience attention on violent behavioral intentions depend on various individual-level characteristics. Specifically, the effect of physical provocation depends on gender, and social class. The effect of audience attention depends on self-control. The positive coefficient for the interaction of provocation and respondent sex indicates that males are more likely to indicate violent behavioral intentions in response to provocation than females, while the negative coefficients for the interaction between the physical provocation and upper class variables indicates that individuals from upper class backgrounds are less likely to indicate violent behavioral intentions in response to physical provocation. The positive coefficient for the audience by low self-control variable suggests that the effects of audience attention on violent behavioral intentions are greater for individuals with less self-control. These results provide general support for hypothesis 4.

Discussion

The purpose of this chapter was to examine the relationship between situational factors and violent behavioral intentions. In general, the above results suggest that both individual and situational factors are important to consider when studying violent events. Consistent with hypotheses 1 and 2, these results imply that situational factors are important predictors of violent behavioral intentions. Provocation, aggressive cues, withdrawal cues, and audience are all important predictors of violent behavioral intentions.

Physical provocation, in particular, is a strong predictor of violent behavioral intentions. This dummy variable is statistically significant in all three regression models and is substantively significant in each model as well. The smallest regression coefficient for physical provocation is 1.209. Given that the scale for violent behavioral intentions ranged from 0 (definitely would not punch or strike the other person) to 10 (definitely would punch or strike the other person), this is a sizable effect. While this may not perfectly reflect the psychometric qualities of the dependent variable, if we crudely conceptualize of the measurement of the dependent variable as the self-estimated probability that a person would engage in violence, this suggests that, controlling for other factors, respondents were 12% more likely to indicate violent behavioral intentions when they were physically provoked in the scenario than when they were verbally provoked.

The presence of aggressive and especially withdrawal cues are also significant predictors of violent behavioral intentions. These factors, along with provocation, likely tap into the Vigil's (2009) concept of trustworthiness cues in that individuals presenting aggressive cues (making a fist) and individuals presenting withdrawal cues (walking

away from the conflict) send clear messages regarding their intentions. And finally, audience attention is a significant predictor of violent behavioral intentions. Though the magnitude of this coefficient is smaller than that of provocation or withdrawal cues, this finding supports the contention that the presence and attention of an audience can escalate interpersonal confrontations (Collins, 2008; Felson, 1982; Kim, Smith, and Brigham, 1998; Miller, 2001).

Taken together, these results confirm theoretical expectations that situational factors can motivate people to engage in violence. This suggests that future research and theory on violence should focus on the role of agency in violent events. Though some individuals may be predisposed to violent behavior, each violent act is preceded by a set of situational stimuli that provide the necessary opportunity and motivation to engage in violence. These situational stimuli are important for a micro-social or event-focused understanding of violence in which violent acts and not people are the primary unit of analysis.

Conversely, however, these results do not provide support for the hypotheses that the characteristics of actors in a given scenario affect behavioral intentions (hypothesis 3). The race, size, and appearance of the provocateur in a given situation are not statistically significant predictors of violent behavioral intentions. It is difficult to ascertain the importance of this finding. This may imply that the content of situations is more relevant than the characteristic of actors involved in situations. Alternatively, it is possible that the vignette methodology is not well suited for studying these factors. Race, size, and appearance have visual components and the effects of these factors may be contingent on visual processing. If so, text-based vignettes may be less effective at

evaluating the importance of these factors than other approaches. Given that other research designs may be better suited for studying these factors, I cannot conclude that the characteristics of actors in a given scenario are unrelated to the outcome in the scenario. Instead, I simply note that I do not find support for such relationships in my data and, instead, can only safely conclude that situational content (in terms of provocation, audience effects, and aggressive/withdrawal cues) is related to the outcome of situations.

And finally, these results provide support for the hypothesis that there is an interactive relationship between situational and individual-level factors (hypothesis 4). In addition to the independent effects of situational factors on violent behavioral intentions, situational factors also interact with individual-level factors to produce violent behavioral intentions. This suggests that the relationship between situational factors and violence is not straightforward. The effects of at least some situational factors seem to depend on individual-level factors. People are not all affected by situational stimuli in the same fashion. The significance of these interactions has important implications for the development of a theoretical model of violence as a situational process. As Wikström (2006) suggests, the origin of action is likely rooted in the interaction between individual-level traits and the content of social situations. In terms of motivation, this suggests that while situational factors create motivation, the amount and type of motivation that they create is not the same for all people.

CHAPTER 5: A SITUATIONAL TEST OF SITUATIONAL ACTION THEORY

Research Question: What role does situational morality play in violence?

Having established that situational factors influence the likelihood of violent responses, I now examine whether and how morality might also influence situational violence. Situational action theory posits that morality is central to the decision to engage in violence and that specific violent acts result from the interaction of propensity and exposure to inducements to violence (Wikström and Treiber, 2009). As discussed in Chapter 2, the situational action perspective is new and has not been widely tested. The purpose of this chapter is to evaluate situational action theory by testing the following hypotheses:

> *Hypothesis 5: People are more likely to respond with violence if they have moral attitudes favorable toward violence.*
>
> *Hypothesis 6: The effects of provocation on violence depend on moral attitudes toward violence. The effect of provocation is expected to be greatest for those with attitudes favorable toward violence.*
>
> *Hypothesis 7: Self-control does not predict violence in situations where a person views violence as unacceptable or necessary.*
>
> *Hypothesis 8: Deterrence does not predict violence in situations where a person views violence as unacceptable or necessary.*

All regression models presented in this chapter are multi-level regression models with random coefficients. The dependent variable in each model is hypothetical intentions to punch or strike the other person in a given scenario. The first model examines hypothesis 6 and evaluates the relationship between general moral attitudes toward violence (how wrong, ranging from not at all to very wrong it is to engage in violence) and violent behavioral intentions.

Table 5.1. Situational Action Theory: Random-Intercept Multilevel Regression Coefficients

	Model 1	Model 2	Model 3
Propensity and Inducement Variables			
Global Morality	-0.562**	-0.260**	-0.199*
	(0.073)	(0.073)	(0.079)
Situational Morality	-	-0.355**	-0.353**
		(0.022)	(0.022)
Physical provocation	1.208***	0.849**	1.421**
	(0.099)	(0.096)	(0.299)
Morality X Provocation	-	-	-0.128**
			(0.063)
Theoretical Contingency Variables			
Low Self-Control	0.107**	0.091**	0.092**
	(0.014)	(0.014)	(0.014)
Other same size	-0.075	-0.054	-0.063
	(0.123)	(0.116)	(0.116)
Other larger	-0.230+	-0.281*	-0.283*
	(0.124)	(0.116)	(0.116)
Situational Control Variables (Level 1)			
Partner antagonism	0.056	0.019	0.017
	(0.100)	(0.094)	(0.094)
Other Black	-0.199+	-0.159	-0.150
	(0.120)	(0.113)	(0.113)
Other Latino	-0.138	-0.066	-0.058
	(0.124)	(0.116)	(0.116)
Well dressed	0.067	0.143	0.143
	(0.121)	(0.114)	(0.114)
Urban dressed	-0.003	-0.010	-0.016
	(0.125)	(0.117)	(0.117)
Audience familiarity	0.001	0.026	0.022
	(0.099)	(0.093)	(0.093)
Audience attention	0.233*	0.282**	0.285**
	(0.101)	(0.095)	(0.095)
Aggressive cues	0.233+	0.126	0.125
	(0.122)	(0.115)	(0.115)
Withdrawal cues	-0.713**	-0.584**	-0.581**
	(0.124)	(0.116)	(0.116)
Individual Control Variables (Level 2)			
Prior Violence	0.288*	0.238*	0.239*
	(0.124)	(0.120)	(0.120)
Peer Violence	0.273*	0.270*	0.269*
	(0.118)	(0.115)	(0.115)
Male	0.468*	0.316	0.317
	(0.204)	(0.199)	(0.199)
Hispanic	0.746**	0.669**	0.657**
	(0.207)	(0.202)	(0.202)
Other Race or Ethnicity	0.232	0.179	0.181
	(0.352)	(0.343)	(0.343)
Lower Middle Class	-0.396	-0.343	-0.345
	(0.275)	(0.268)	(0.268)
Upper Middle Class	-0.562*	-0.566*	-0.577*
	(0.259)	(0.253)	(0.253)
Age	0.017	0.019	0.019
	(0.017)	(0.016)	(0.016)
Constant	4.796**	5.499**	5.223**
	(0.608)	(0.593)	(0.608)
Random Intercept	2.298	2.265	2.264
	(0.077)	(0.075)	(0.075)
LL	-5081.194	-4963.432	-4963.256

Regression coefficients with standard errors in parentheses. * $p < 0.05$, ** $p < 0.01$ * $p < 0.05$, ** $p < 0.01$. n = 2137

Model 1 examines the relationship between morality and violence. It is important to start with this model, as situational action theory is built on a relationship between morality and violence. Results suggest that morality is a statistically significant predictor of violent behavioral intentions, thus providing support for hypothesis 5. Respondents are less likely to report violent behavioral intentions if they believe that violence is wrong. Specifically, a 1-unit increase in morality is associated a 0.558 decrease in violent intentions, controlling for other factors. Given that the dependent variable ranged from 0 (definitely would not punch) to 10 (definitely would punch), this crudely corresponds to about a 5% decrease in the likelihood that a person would engage in violence in a given situation. This result also indicates a 15% difference in the likelihood of engaging in violence between those who believe who it is not at all wrong and those who believe it is very wrong to engage in violence. This is consistent with prior research on situational action theory and implies that morality is an important correlate of violence (Antonaccio and Tittle, 2008; Gallupe and Baron, forthcoming; Wikström and Svennson, 2010).

While morality is an important correlate of violent behavioral intentions, a number of other factors are also significantly related to violent behavioral intentions. As in the prior chapter, the situational factors physical provocation, audience attention, and withdrawal cues are all statistically significant predictors of violent behavioral intentions. Interestingly, the aggressive cues variable is only a borderline statistically significant predictor of violent behavioral intentions, indicating that moral attitudes toward violence partially mediate the effect of aggressive cues (though it should be noted that the change in magnitude for the aggressive cues coefficient in small from Chapter 4 to 5). In terms

of individual-level variables, low self-control, prior violence experiences, and peer violence experiences are statistically significant predictors of violent behavioral intentions. Similarly, Hispanic respondents are significantly more likely than white respondents to indicate violent behavioral intentions, while respondents identifying as upper class were less likely to indicate violent behavioral intentions than respondents who identify as working class. The results of model 1 are most directly comparable to the results of model 2 in Table 4.1. It is worth noting that including morality reduced the size of the coefficients for many of the individual-level variables presented in Chapter 4. Thus, while many of these factors are still significantly related to violent behavioral intentions, their importance is greatly reduced by the inclusion of a morality measure. This suggests that morality partially overrides the effects of other individual-level variables.

Model 2 examines the relationship between situational morality and violent behavioral intentions. Unlike global morality (which measures general attitudes toward violence), situational morality refers to how wrong respondents believe it would be to strike the other person in the situation described by a given vignette. Situational morality is a significant negative predictor of violent behavioral intentions, suggesting that violent intentions are less likely when a person believes that violence is wrong in a given scenario. Interestingly, the relationship between global morality and violent intentions (though smaller in magnitude than in model 1) is still statistically significant after controlling for situational morality. Though global and situational attitudes toward violence are significantly correlated (r=0.463), the inclusion of both variables does not introduce any collinearity problems for the analysis. This highlights an important

strength of situational action theory. Situational morality does not equal general morality and the discrepancy between these concepts might help to explain situations in which generally non-violent people engage in violence.

The relationship between the other person's size and violent behavioral intentions is statistically significant in model 2, while size was only a borderline significant predictor of violent behavioral intentions in model 1. This implies that, controlling for situational morality, size may play a deterrent role in violent situations. The other results from model 2 are substantively similar to the results from model 1, with physical provocation, audience attention, low self-control, prior violence, peer violence, and the dummy variable for Hispanic ethnicity all positively predicting violent behavioral intentions, while withdrawal cues and the dummy variable representing upper class status negatively predict violent behavioral intentions.

Model 3 in Table 5.1 examines the central hypothesis of situational action theory: violence is the result of the interaction between propensity and exposure to situational inducements to violence. In order to address this hypothesis, I add an interaction term between provocation and general or global morality to model 1. In this interaction term, morality represents propensity and physical provocation represents exposure to situational inducements. I use general morality in the interaction term because it is likely that situational morality is at least partially determined by provocation (though it should be noted that the results are substantively similar regardless of whether the interaction utilizes general or situational morality). Though a log-likelihood test indicates that adding this interaction term does not significantly improve model fit (χ^2=0.352), this is a theoretically proscribed regression term and therefore is important to interpret.

Moreover, given that this interaction term is a statistically significant, it seems important to include as a predictor of violent behavioral intentions.

This interaction term suggests that the effect of situational inducements is contingent on morality. Though physical provocation continues to have a direct positive main effect on violent behavioral intentions, this effect is reduced as morality increases. Specifically, the relationship between physical provocation and violent behavioral intentions is *physical provocation* * (1.421 – 0.199 * *morality*). This indicates that, controlling for other independent variables, the overall effect of physical provocation is 1.22 for those who feel that it is not at all wrong to engage in violence (morality = 1) and 0.625 for those who feel that it is very wrong to engage in violence (morality = 4). Figure 5.1 provides a visual representation of the interaction between morality and provocation. Note that the effect of provocation on violent behavioral intentions is weaker for individuals with higher morality scores. Overall, these results support hypothesis 6.

Figure 5.1. Interaction between Morality and Provocation

In terms of other independent variables, the situational variables audience attention and withdrawal cues continue to significantly predict violent behavioral intentions. Similarly, low self-control, prior violence experiences, peer violence experiences, ethnicity, and class are also statistically significant predictors of violent behavioral intentions. Though the results of model 2 largely support situational action theory, it is clear that other factors, beyond morality and provocation, continue to influence violent behavioral intentions. In general, these findings provide additional support for situational action theory. The situational factors can be viewed as exposure to other situational inducements, while the individual-level factors may operate as measures of violent propensity.

The Contingent Roles of Self-Control and Deterrence

In terms of situational action theory, the results regarding self-control and physical size require additional examination. Situational action theory argues that self-control and deterrence are only related to violence in situations in which actors are ambiguous about the appropriateness of violence. Specifically, self-control and deterrence are not expected to matter in situations in which an actor believes that violence is not at all or is completely wrong, as there is no need to exert self-control in these situations. Instead, these factors are only expected to matter in situations where ambiguity exists regarding the morality of violence. Therefore, situational action theory argues that the relationship between self-control and violence and deterrence and violence is contingent on morality. Though some researchers have examined this theoretical contingency using traditional interaction terms (Gallupe and Baron, forthcoming; Wikström and Svennson, 2010), I agree with the split-sample approach

used by Antonaccio and Tittle (2008) and Svensson et al. (2010). Alone, interaction terms can only demonstrate whether or not a variable (like self-control) has a greater or smaller effect on violent behavioral intentions for higher or lower levels of morality. In order to demonstrate the nonlinear relationship between self-control and morality posited by situational action theory, it would be necessary to include both interaction terms and quadratic terms.

Instead, I split the sample into low, medium, and high levels of morality as this addresses this issue without adding additional model complexity. Unlike Antonaccio and Tittle (2008) and Svensson et al. (2010), who split their sample into three groups based on individual-level morality, I split my sample based on situational morality. Respondents were asked to indicate how wrong (ranging from 0, not at all wrong, to 10, very wrong) it would be to engage in violence if they were placed in a given vignette. This measure, therefore, represents actual ambiguity in how appropriate respondents feel that is violence is in a given situation.

After trying a number of different splitting strategies (and discovering no differences in results), I decided to divide the cases into low morality (situational morality equal to 0, 1, or 2), high morality (situational morality equal to 8, 9, or 10, and medium morality (situational morality ranging from 3 to 7). I believe that splitting the sample in this fashion better captures the spirit of the situational action theory argument, as this splits the sample into groups that correspond to how wrong someone feels it would be to engage in violence in that particular situation. Conversely, splitting samples based on an individual-level morality measure assumes that people who do not, in general, feel that violence is not at all or very wrong are always faced with moral conflict when faced

with potentially violent situations. This is empirically not true. As previously noted, individual-level morality and situational morality are correlated, but the correlation is not overwhelmingly strong (r=0.436). This suggests that while individual-level morality is likely a predictor of situational morality, those who view violence as generally wrong or not wrong do not always carry those beliefs over to specific situational incidents. After splitting the sample into three groups based on situational morality, I re-estimated model 3 from Table 5.1 on each sample.

The primary goal of these three regression models is to examine the effect of the theoretical contingency variables across levels of situational morality. Low self-control is measured using a variation of the Grasmick et al. (1993) scale (described in Chapter 3). Physical size is used as a proxy measure for deterrence. Though typically associated with formal social controls and sanctions, the concept of deterrence is simply an extension of the cost-benefit analysis of the rational choice perspective. The physical size of the other person involved in a potentially violent scenario may act as an informal deterrent. People may view larger adversaries as more dangerous and therefore this may act as an external control that limits aggressive behaviors. Indeed, research supports the contention that physical size affects perceptions of dominance (Watkins et al. 2010) and influences the likelihood that an individual engages in violence (Messerschmidt, 2012).

Low self-control significantly predicts violent behavioral intentions across all levels of situational morality. Moreover, the coefficient for low self-control varies very little across levels of situational morality. These results are contrary to hypothesis 7 and suggest that self-control is an important and largely consistent predictor of violent behavioral intentions regardless of level of situational morality.

Table 5.2. Self-Control across Levels of Situational Morality: Random-Intercept Multilevel Regression Coefficients

	Not at all wrong (n=490)	Moderately wrong (n=996)	Very wrong (n=649)
Propensity and Inducement Variables			
Global Morality	-0.301+	-0.184+	-0.397**
	(0.165)	(0.102)	(0.152)
Physical provocation	1.397*	1.452**	1.622+
	(0.623)	(0.459)	(0.838)
Morality X Provocation	-0.132	-0.157	-0.390*
	(0.160)	(0.096)	(0.153)
Theoretical Contingency Variables			
Low Self-Control	0.085**	0.092**	0.077**
	(0.028)	(0.018)	(0.022)
Other same size	-0.222	0.099	-0.222
	(0.327)	(0.147)	(0.194)
Other larger	-0.114	-0.385*	-0.408*
	(0.317)	(0.149)	(0.187)
Control Variables			
Partner antagonism	-0.092	0.142	-0.044
	(0.258)	(0.120)	(0.153)
Other Black	-0.285	-0.107	-0.171
	(0.315)	(0.143)	(0.188)
Other Latino	-0.326	-0.077	-0.075
	(0.328)	(0.145)	(0.191)
Well dressed	0.240	0.002	0.442*
	(0.328)	(0.142)	(0.190)
Urban dressed	-0.050	-0.064	0.256
	(0.325)	(0.152)	(0.190)
Audience familiarity	-0.230	0.044	-0.015
	(0.257)	(0.117)	(0.157)
Audience attention	0.151	0.079	0.148
	(0.269)	(0.121)	(0.156)
Aggressive cues	-0.253	0.314*	0.350+
	(0.304)	(0.150)	(0.191)
Withdrawal cues	-0.678*	-0.288+	-0.380*
	(0.336)	(0.153)	(0.178)
Prior Violence	0.005	0.308+	0.899**
	(0.217)	(0.158)	(0.241)
Peer Violence	0.336	0.275+	0.128
	(0.224)	(0.145)	(0.188)
Male	0.547	0.285	0.168
	(0.411)	(0.244)	(0.333)
Hispanic	0.537	0.838**	0.403
	(0.462)	(0.254)	(0.324)
Other Race or Ethnicity	-0.300	0.415	0.415
	(0.680)	(0.451)	(0.492)
Lower Middle Class	-0.396	-0.318	-0.127
	(0.561)	(0.342)	(0.435)
Upper Middle Class	-0.687	-0.260	-0.251
	(0.547)	(0.322)	(0.398)
Age	0.057	0.031	0.003
	(0.042)	(0.021)	(0.022)
Constant	5.354**	2.507**	3.534**
	(1.384)	(0.775)	(0.107)
LL	-1253.162	-2225.586	-1460.023
Random Intercept	2.567	2.317	2.347
	(0.181)	(0.094)	(0.122)

Regression coefficients with standard errors in parentheses. * $p < 0.05$, ** $p < 0.01$

These results are robust to splitting strategy and model specification. It is possible, for example, that some may object to including individual-level morality and the interaction between morality and provocation in these contingency testing models, since these models are already split by level of situational morality. Though I reject this argument given that individual and situational morality has only a moderately strong correlation, I estimated these contingency models without these variables. Again, self-control predicted violent behavioral intentions across all levels of situational morality. I also experimented with various splitting strategies. Self-control continues to significantly predict violent behavioral intentions even when low, medium, and high moralities are defined in different ways. Moreover, additional models were estimated utilizing the interaction between self-control and morality. Though I have previously argued against this specification, other research has employed this strategy (Gallupe and Baron, forthcoming; Wikström and Svennson, 2010), I estimated these models as well and found no statistically significant interaction between self-control and morality. Though many of the general situational action theory arguments are supported by the results presented in Table 5.1, the results presented in Table 5.2 point to a need for theoretical refinement regarding the role of self-control in situational action theory.

Conversely, I find some support for the deterrence arguments made by situational action theory. The size of the other person involved in a potentially violent situation is a statistically significant predictor of violent behavioral intentions only in medium and high morality cases and not in low morality cases. If a person believes that it is not at all wrong to engage in violence in a given scenario, the size of the other person is apparently irrelevant. However, if a person is unsure or thinks that it would be wrong to engage in

violence in a given scenario, the size of the other person can act as a deterrent and reduce the likelihood of reporting violent behavioral intentions. Though size is a significant predictor in medium and high morality cases, the coefficient for size is not significantly different across model types. Therefore, while these models therefore provide partial support for hypothesis 8, these results should be viewed as preliminary.

These split sample models demonstrate that other factors vary in importance across levels of situational morality. The primary interaction proposed by situational action theory (propensity X exposure), for example, is only a statistically significant predictor of violent behavioral intentions in situations where the person believes that it is very wrong to engage in violence. However, there are no statistically significant differences in the size of these coefficients across models.

Discussion

Broadly speaking, the results presented in this chapter are supportive of situational action theory. Moral attitudes towards violence are significantly associated with violent behavioral intentions. Prior research on situational action theory supports this conclusion (Antonaccio and Tittle, 2008; Gallupe and Baron, forthcoming; Svensson et al., 2010; Wikström and Svennson, 2010). Moreover, my results suggest that morality reduces the effects of factors like prior violence and peer violence (as compared to model 2 in Table 4.1). This is a key point, as failure to include important variables in regression models can produce misleading results regarding other factors. For example, while the results of this chapter support the well-established link between delinquent peers and delinquency, the importance of delinquent peers is reduced considerably by the inclusion

of morality into regression models. This, of course, does not necessarily imply that morality is a more important cause of violence than delinquent peers. Instead, it simply suggests that morality may be a more salient direct cause of violence. Indirectly, delinquent peers may still be very important. Social learning theory (Akers, 1998), for example, would suggest that delinquent peers likely influence moral attitudes toward violence. Indeed, given that situational action theory includes a component of moral education, it may be useful for future theorists to explore the potential to integrate the social learning and situational action perspectives.

Focusing on morality, however, these results imply that future individual-level and situational level research on violence and crime more broadly should include measures of morality as independent variables. Failure to include morality likely implies some degree of misspecification. It is important to note, however, that measures of morality introduce endogeneity or in the very least simultaneity concerns, especially in research where the behavioral intentions or future projections of behavior are the dependent variable. Given that a respondent first answered how likely they were to punch or strike the other person and then answered how wrong it would be to engage in violence in a given situation, it is possible that respondents consciously answered the situational morality question to reflect their behavioral intentions. The correlation between situational morality and intentions to punch or strike is -0.431. Though this is a strong correlation, it is far from perfect suggesting that situational morality does not always match behavioral intentions. Of course, the most problematic scenario involves respondents suggesting that it would be very wrong to strike the other person in a vignette. In these cases, this concern would suggest that very few respondents would also

indicate that they would be very likely to punch or strike the other person (as this is akin to stating that it is very wrong to punch the person and I am going to punch the other person anyway). Indeed, only about 3% of cases fit this scenario, suggesting that very few respondents indicated that they were very likely strike the other person if they thought it was very wrong to do so. In other cases, this issue may be less problematic. For example, it is sensible for a person to state that it is not at all wrong to punch or strike the other person and indicate that they would not be likely to do so. Therefore, while morality is an important predictor of violence, researchers must be aware that including measures of morality may introduce issues of endogeneity and simultaneity.

In addition to supporting the link between morality and violence, these results also provide some support for situational action theory's primary hypothesis that violence is the result of the interaction between propensity and exposure to inducements to violence. Though morality is an important predictor of violent behavioral intentions, the relationship between morality and violence is conditioned by the presence of physical provocation. While individuals with attitudes favorable toward violence are always more likely to indicate violent behavioral intentions, the difference between these respondents and those with attitudes unfavorable toward violence are greater for scenarios involving physical provocation.

I also find support for the deterrence claims of the situational action perspective. The size of the other person involved in a potential interpersonal conflict is only important in situations where it is viewed as moderately wrong or very wrong to engage in violence. When people feel that it is not at all wrong to engage in violence, the size of the person has no significant deterrent quality. Though most of the research attention on

situational action theory has focused on the interplay between self-control and morality, situational action theory also makes claims regarding the interplay between deterrence and morality. In fact, from the situational action perspective, both self-control and deterrence are simply forms of control that vary only in their location (with self-control being internal to the actor and deterrence being external to the actor). As such, situational action theory would predict a similar relationship between deterrence and morality in that deterrence is only expected to matter in situations where a person is unsure about the moral appropriateness of violence. Unlike my results regarding self-control, I find some support for this hypothesis.

These results do, however, broadly suggest that some aspects of situational action theory are in need of additional research and potentially theoretical revisions. For instance, while it is a strength of the perspective that it can provide an explanation for atypical behavior, it is somewhat surprising that the key hypothesis (the interaction between propensity and exposure) is not a statistically significant predictor of violent behavioral intentions for situations where it is viewed as not at all wrong or moderately wrong to engage in violence. This may suggest that morality has a more direct relationship with behavior in situations like these.

It would be premature to reject the broader propensity X exposure argument. First of all, the current research utilized only simple proxies of propensity and exposure. There are likely other individual and situational factors that should be considered elements of each of these factors. More importantly, it is worth noting that respondents were exposed to some situational inducements toward violence in each vignette. The basic scenario in the vignettes is intended to depict a potentially violent scenario. In

every vignette, regardless of the randomization of situational factors, respondents were presented with, in the very least, a form of verbal provocation. Though this was by design (in order both to make the research more comparable to previous violence vignette studies and to increase the likelihood that some respondents reported violent behavioral intentions), it is still somewhat problematic. Additional research is needed to more thoroughly test the propensity X exposure argument. In terms of factorial vignette research, future studies should include non-provocation scenarios that would introduce more variance in levels of "exposure."

Also, like prior studies (Antonaccio and Tittle, 2008; Gallupe and Baron, forthcoming), I do not find support for situational action theory's claims regarding self-control. Self-control is a statistically significant predictor of violent behavioral intentions, regardless of situational morality and level of individual-level morality. This supports a large body of research indicating that self-control is among the most important individual-level predictors of antisocial behavioral (Pratt and Cullen, 2000). Svensson et al. (2010) caution that Antonaccio and Tittle's (2008) results may be due to using behavioral projections as the dependent variable. The current study, which utilizes behavioral intentions, may be critiqued on the same grounds. Though this is a reasonable concern, it is not clear that the cross-sectional measures of actual behaviors that Svensson et al. (2010) employ are necessarily superior to measures of behavioral intentions/projections. Cross-sectional measures of the frequency of criminal or delinquent behavior suffer from serious concerns regarding causality. Still, it is worth noting that both of the studies (Svennson et al., 2010; Wikström and Svennson, 2010) that find support for situational action theory's self-control arguments utilize measures of

delinquent behavior, while studies that examine behavioral intentions do not find such support. Future research, perhaps in an experimental setting, that examines actual behavioral responses to provocations and temptations is necessary to further examine the self-control arguments of situational action theory.

If future research is not supportive of the self-control claims of situational action theory, then this suggests that situational action theory needs revisions to better incorporate the concept of self-control. To the degree that self-control reflects impulsiveness, it may be that people with low self-control respond to situational stimuli before doing any moral reasoning. This may lead to situations where a person reflexively engages in behaviors that he or she believes are wrong and may later regret. If so, this may suggest an alternative specification in which morality is only important for those with higher levels of self-control. Individuals with lower levels of self-control may simply respond to situational stimuli aggressively and then may (or may not, depending on their morality) later regret their actions. Conversely, moral attitudes may be more important for those with higher levels of self-control, as they are likely to be less impulsive and more deliberate and thoughtful regarding their responses to situational stimuli. Indeed, preliminary analyses support this revised view of the relationship between morality and self-control (see Appendix C).

This idea is not incompatible with the situational action perspective. Though most studies of situational action theory focus on the interplay between morality and self-control, situational action theory provides a more general statement on self-control. Specifically, situational action theory argues "that people exercise free will and self-control (internal controls) and respond to deterrence cues (external controls) only when

they deliberate" and not when engaged in habitual or reflexive actions (Wikström and Treiber, 2009: 77). This argument need not lead to the hypothesis that deliberation only occurs when there is moral ambiguity about how to act. Instead, it possible that deliberation, itself, is related to levels of self-control in that people with less self-control are simply more reflexive and less deliberate.

CHAPTER 6: A SITUATIONAL TEST OF GENERAL STRAIN THEORY

Research Question: Do the general strain mediating and conditioning processes explain violence at the situational level?

The purpose of this chapter is to provide a situational test of general strain theory. General strain theory posits that emotional responses mediate the relationship between strain and crime and that individual-level characteristics condition the relationship between strain and crime. As discussed in Chapter 2, recent research on general strain theory has been unsupportive of these mediating and conditioning processes. I argue, however, that it may be premature to reject these processes, as they may be more useful in explaining specific situational outcomes than they are in explaining individual differences in the strain-crime relationship. The purpose of this chapter is to evaluate the influence of situational strains on violent behavior and assess the related mediating and conditioning strain processes. I begin by evaluating the following hypotheses:

> *Hypothesis 9: People are more likely to respond with violence in situations characterized by higher levels of situational strain.*
>
> *Hypothesis 10: People are more likely to respond to violence in situations characterized by higher levels of subjective strain.*

The strain-crime link described by these hypotheses is well supported, but has not been tested at the situational level. Next, I address the mediation hypothesis:

> *Hypothesis 11: Emotional responses reduce or mediate the relationship between situational strain and violent responses.*

Broadly speaking, the mediation hypothesis suggests that accounting for emotional responses should significantly reduce the magnitude of the relationship between strain and crime. Some research finds partial support for this hypothesis (Mazerolle et al., 2003), while other research finds little evidence of the mediation process (Botchkovar et al., 2009). Then, I address the conditioning hypotheses of general

strain theory. These conditioning hypotheses suggest that the effects of strain depend on individual characteristics. It is worth noting that these conditioning hypotheses have received the least support in the empirical literature on general strain theory (Botchkovar et al. 2009; Tittle et al., 2008).

> *Hypothesis 12: The effect of situational strain on violence is greater for people with less self-control.*
>
> *Hypothesis 13: The effect of situational strain on violence is greater for people with negative emotional dispositions.*

Finally, I address the gender implications of general strain theory. Broidy and Agnew (1997) argue that there are gender differences in emotional responses to strain and that these differences may account for the gender gap in crime. At the situational level, this implies the following hypotheses:

> *Hypothesis 14: Women are less likely than men to respond to situational strain with violence.*
>
> *Hypothesis 15: Women are expected to experience similar amounts of anger and other emotions in response to situational factors, while men are expected to report primarily anger. These gender differences in emotional responses account for gender differences in responses to situational strain.*

I present two sets of regression models to evaluate the general strain hypotheses. First, I present three multi-level regression models in Table 6.1 to evaluate hypotheses 9 through 13. These first regression models incorporate the entire sample. Then, I present four additional multi-level regression models in Tables 6.3 and 6.4 to evaluate hypotheses 14 and 15. The results in tables 6.3 and 6.4 are of split-sample models in which separate regressions are estimated for male and female respondents.

The first set of models evaluates the basic general strain theory argument. Model 1 in Table 6.1 evaluates the relationship between situational strain variables and violent

behavioral intentions. Model 2 in Table 6.1 evaluates the relationship between situational strain variables and violent behavioral intentions controlling for emotional responses. The third model in Table 6.1 includes interaction terms between situational strain variables and individual-level characteristics.

Each of these models includes the same set of individual-level control variables from the prior chapter (attitudes towards violence, low self-control, peer violence, prior violence, gender, age, and race/ethnicity). Given that Agnew et al. (2002) suggest that individual-level constraint (a concept close in nature to self-control) affects the relationship between strain and crime, low self-control is of particular importance for these models. In addition to the variables from Chapter 4, Agnew et al. (2002) suggest that negative emotionality is also an important personality trait that conditions the strain process and therefore a trait measure of anger is included in these models. And finally, the models presented in this chapter also include a measure of accumulated strain, since prior experiences with strain should influence contemporaneous responses to strain (Slocum, 2010).

Agnew suggests that subjective strain is more important than objective strain in predicting crime (Agnew, 2001). I measure subjective strain with a single item asking respondents to indicate how stressful they believe it would be to be in the situation described by a given vignette. I believe that this is a reasonable measure of subjective situational strain, as it reflects the degree of perceived stress that respondents associate with a given set of situational factors.

I operationalize situational strain using the situational factors that vary across vignettes. Situational strain refers, therefore, to the actual negative experiences in a given

situation. Though some might prefer to refer to these factors as objective strain, I define these factors more narrowly as situational strain. Objective strain implies that these factors are subjectively stressful for all people. The data do not bear this out; therefore, I prefer the term situational strain. These factors were randomly generated for each vignette and therefore are independent to respondent characteristics, while the subjective strain measure is dependent on the respondent's perceptions of a given vignette. I limit my measure of situational strain to the three situational variables that were positively and significantly related to violent behavioral intentions in Chapter 4. That is, I view physical provocation, aggressive cues, and the presence of an audience as indicating levels of situational strain. Specifically, I argue that a situation contains a higher level of situational strain if it includes more of these factors. In other words, situations involving all three elements have a higher level of situational strain than situations involving either none of these elements or a subset of these elements. In order to operationalize this concept, I constructed a variable called situational strain that ranges from 0 (none of the three factors above occur in a vignette) to 3 (all of the above factors occur in a vignette). This measure is significantly correlated with the subjective strain variable, though this correlation is modest (*r=0.089*).

Given that the situational strain measure described above is not truly ordinal, I transform this variable into a series of three dummy variables representing situational strain. These dummy variables are low situational strain (indicating that one of the three risk factors was present in a given situation), medium situational strain (indicating that two of the three risk factors were present in a situation), and high situational strain (indicating that all three of the risk factors were present in a situation). The reference

category includes scenarios involving no physical provocation, aggressive cues, or audience attention (I refer to the reference category as minimal situational strain and not as no situational strain, as all of the vignettes were designed to depict potential interpersonal conflict).

I recognize that this conceptualization of situational strain is limited. This method of operationalization assumes that physical provocation, aggressive cues, and audience attention have equal effects on violence. This assumption is tenuous, given that physical provocation had a much stronger relationship with violence than aggressive cues or audience attention in Chapter 4. Though this measure is imperfect, I argue that it is necessary to develop some combined measure of situational strain. While it was appropriate to maintain each situational element as a distinct variable in Chapter 4 (in order to build evidence for the utility of the situational perspective), the magnitude of negative situational strain is not captured by maintaining these factors as distinct variables. In preliminary analyses, I utilized a more complex set of variables measuring situational strain. Specifically, I built dummy variables representing physical provocation only, audience attention only, aggressive cues only, physical provocation and audience attention only, physical provocation and aggressive cues only, audience attention and aggressive cues only, and physical provocation, audience attention and aggressive cues all at once. The results of these more complex models were substantively the same as the simplified models presented below, though they are much more cumbersome to discuss. For the sake of parsimony, I report the results using the more simplified measure of situational strain.

In addition to this situational strain measure, the models presented in Table 6.1 also include the other situational variables included in Chapter 4. The majority of these variables, as in Chapter 4, are unrelated to violent behavioral intentions in the models below. Though these variables are insignificant, I believe that it is important to include them in my models as these variables capture the fact that there was variance in the randomly generated vignettes. The exception is withdrawal cues, which continues to have a statistically significant negative relationship with violent behavioral intentions. For the sake of presentation and because these factors are not central to the key argument made in this chapter, I do not include these variables in the table below.

Model 1 evaluates the basic strain hypothesis. The results of this model support general strain theory. Respondents are more likely to report violent behavioral intentions when evaluating scenarios containing higher levels of situational strain. Similarly, respondents are significantly more likely to report violent behavioral intentions when they view a given situation as subjectively stressful. Therefore, model 1 supports hypotheses 9 and 10 which suggest that situational and subjective strain positively predict violent intentions. The current research, therefore, supports the broad body of literature linking strain to delinquent outcomes (Agnew, 2006a).

These models also control for a number of individual-level factors. Briefly, low self-control, violent peers, and prior violent experiences are all risk factors for violent intentions, while attitudes unfavorable toward violence reduce the likelihood that an individual will indicate violent behavioral intentions. Males and Hispanics are significantly more likely to report violent behavioral intentions than females and Whites.

Table 6.1. General Strain Theory: Random-Intercept Multilevel Regression Coefficients

	Model 1	Model 2	Model 3
Low Sit. Strain	0.754**	0.677**	0.658**
	(0.148)	(0.144)	(0.144)
Medium Sit. Strain	1.157**	1.044**	1.030**
	(0.155)	(0.151)	(0.151)
High Sit. Strain	1.752**	1.602**	1.557**
	(0.212)	(0.207)	(0.207)
Subjective Strain	0.257**	0.111**	0.111**
	(0.026)	(0.029)	(0.029)
Situational Fear	-	-0.035	-0.035
		(0.024)	(0.024)
Situational Anger	-	0.391**	0.391**
		(0.030)	(0.030)
Accumulated Strain	0.009	0.009	0.008
	(0.018)	(0.017)	(0.017)
Low Self-Control	0.102**	0.095**	0.062**
	(0.016)	(0.015)	(0.022)
Trait Anger	0.033	0.037	0.037
	(0.030)	(0.029)	(0.029)
Peer Violence	0.201+	0.174	0.171
	(0.118)	(0.112)	(0.112)
Prior Violence	0.347**	0.274*	0.283*
	(0.126)	(0.119)	(0.119)
Morality	-0.595**	-0.529**	-0.530**
	(0.073)	(0.070)	(0.070)
Male	0.593**	0.712**	0.701**
	(0.208)	(0.197)	(0.196)
Age	0.001	0.013	0.012
	(0.017)	(0.016)	(0.016)
Hispanic or Latino	0.666**	0.605**	0.615**
	(0.208)	(0.197)	(0.197)
Other Race/Ethnicity	0.500	0.477	0.481
	(0.356)	(0.337)	(0.337)
Low Self-Control X Low Sit. Strain	-	-	0.022
			(0.020)
Low Self-Control X Medium Sit. Strain	-	-	0.056**
			(0.021)
Low Self-Control X High Sit. Strain	-	-	0.049+
			(0.028)
Constant	3.659**	1.440*	1.475*
	(0.689)	(0.677)	(0.676)
LL	-5019.169	-4943.655	-4928.485
Random Intercept	2.311	2.173	2.169
	(0.077)	(0.075)	(0.075)

Regression coefficients with standard errors in parentheses. * $p < 0.05$, ** $p < 0.01$

Model 2 evaluates the mediation process described by general strain theory. Specifically, this model adds situational measures of anger and fear to model 1. Given that these models are nested, log-likelihood ratio tests can be used to determine if the inclusion of these two additional variables improves model fit. The χ^2 value comparing model 1 and to model 2 is 111.028, suggesting that the inclusion of emotional response variables greatly improves model fit. Situational anger is a significant predictor of violent intentions, meaning that higher responses on the situational anger measure are associated with a higher likelihood of having violent behavioral intentions. Situational fear, however, is not significantly related to violent intentions.

The inclusion of these two variables partially mediates the relationship between situational strain and violence. Including measures of situational anger and fear reduced regression coefficients for low, medium, and high situational strains by 10.2%, 9.8%, and 8.6% respectively. Including measures of situational anger and fear reduced the regression coefficient for subjective strain by 56.8%. All of the situational and subjective strain measures maintained statistically significant relationships with violent behavioral intentions. I consider this moderate evidence for the mediation hypothesis. Situational emotional responses clearly reduce the magnitude of the relationship between subjective strain and violence but do not eliminate it.

This suggests that the relationship between subjective strain and violence at least partially operates through emotional responses. Overall, this implies that while emotional responses are important for the general strain process, strain likely operates through emotional responses and other currently undetermined processes. Agnew (2006b) recently suggested that the relationship between strain and crime need not

depend solely on emotional responses. Agnew (2006b: 36) notes that the "primary way strains increase the likelihood of particular crimes is through their effect on negative emotional traits", but that "strains, however, may also lower individuals levels of social control." Though there may be some situational process by which strain decreases the contextual salience of a person's social bonds, it seems as though this argument is better suited for explaining individual-level differences in criminality via the accumulation of strain. It is possible that strain (and perhaps, especially situational strain) has a more direct relationship with violence. Botchkovar et al. (2009) suggest that "strain my directly impact criminal behavior, bypassing negative emotions altogether." Though I am hesitant to conclude that strain bypasses emotions altogether (given the fairly large reduction in the subjective strain coefficient), I believe that it is still important to consider the possibility that strain creates direct pressures for behavior that may operate independently of emotional responses and perceptions of the strainfulness of a given situation.

Model 3 examines the conditional or moderating hypotheses of general strain theory. Agnew et al. (2002) suggest that the effect of strain on crime may depend on individual-level traits like self-control and negative emotionality. To test this argument, I estimated a series of multi-level regression models including various combinations of interactive terms. I found no evidence of any interaction between trait anger (a proxy for negative emotionality) and either situational or subjective strain. Similarly, I found no evidence of significant interactions between low self-control and subjective strain.

There is, however, a statistically significant interaction between low self-control and situational strain. These results provide general, but still limited, support for the

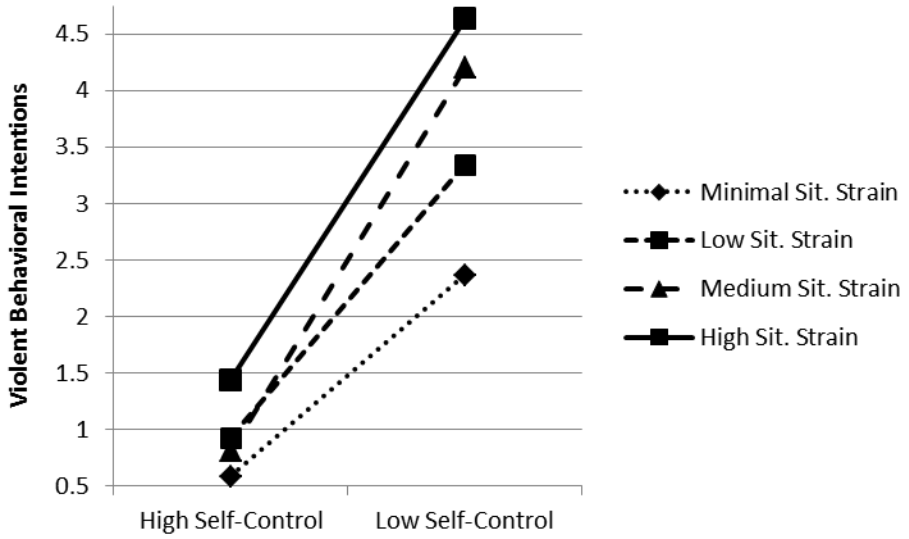
conditioning hypothesis. Individual-level characteristics do appear to condition the relationship between strain and violence, but only some of these individual-level characteristics matter. Specifically, the interaction term between medium situational strain and low self-control is statistically significant and the interaction term between high situational strain and low self-control is borderline statistically significant. In both cases, these interaction terms are positive, suggesting that the effects of medium and high levels of situational strain are greater for people with low levels of self-control.

The interaction term for low self-control and low situational strain was not statistically significant, suggesting that level of self-control does not matter for situations involving only low levels of object strain. This suggests that the overall likelihood of responding to low levels of situational strain is steady across levels of self-control. It is also interesting to note that the interaction term between high situational strain and low self-control is only borderline statistically significant. This may reflect the fact that there is a high overall probability of responding to situations involving high levels of situational strain with violence for people in general (regardless of their level of self-control). Self-control is most salient in situations presenting moderate levels of strain, though the overall influence of the interaction is modest. This suggests that people with low self-control are somewhat more likely to respond to these situations with violence than people with higher levels of self-control.

Visually, the interaction between situational strain and self-control (where low/high = 2 standard deviations below/above average) is presented in Figure 6.1. This figure demonstrates that while those with low self-control are always more likely to indicate violent behavioral intentions than those with high self-control, the relationship

between self-control and violent intentions is contingent on level of situational strain. The distance between the high and medium situational strain lines is smaller for those with low self-control (0.4264) than for those with high self-control (0.6276). This indicates that individuals with low self-control are likely to indicate similar levels of violent intentions for both medium and high levels of situational strain in similar fashions, while individuals with high levels of self-control are likely to indicate less similar levels of violent intentions for the same levels of situational strain.

Figure 6.1. Interaction between Self-Control and Situational Strain



In summary, the results of Model 5.1 provide broad support for general strain theory. Results suggest that both situational and subjective strain increase the likelihood of violent intentions, situational emotional responses partially mediate the relationship between subjective strain and violence (though not the relationship between situational strain and violence), and low self-control moderates or conditions the relationship between situational strain and violence. Overall, the current research provides more

support for general strain theory than other recent empirical studies (Botchkovar et al., 2009; Tittle et al., 2008). I believe that these results demonstrate the utility of adopting a situational focus for examining process-based theories.

Gender and Strain

Next, I present a series of models examining the gender hypotheses associated with general strain theory. In order to evaluate these hypotheses, I present a series of split sample regression models below. I opt to utilize split sample models (that is, models that only include male or female respondents) because my primary focus is not to explore the effect of dichotomous gender categories on violence but, instead, to explore gender differences in the effects of other factors on violence. First, I present a series of baseline models to test for gender differences in responses to situational strain.

Table 6.2 presents baseline models comparing the effects of situational stimuli on men and women. This table presents multi-level regression coefficients for the split sample models and a column of *z*-values indicating whether or not there are statistically significant differences in these coefficients for men and women (Paternoster et al., 1998). This z-test is calculated as:

$$z = \frac{b_1 - b_2}{\sqrt{SEb_1^2 + SEb_2^2}}$$

Though not the primary focus of this chapter, these models control for a variety of individual-level factors and present *z*-values indicating whether or not there are significant gender differences in the effects of these variables as well.

Table 6.2. Strain and Gender Differences between Males and Females: Random-Intercept Multilevel Regression Coefficients

	Males	Females	Paternoster et al. (1998) *z*
Low Sit. Strain	0.985**	0.577**	1.331
	(0.243)	(0.187)	
Medium Sit. Strain	1.430**	0.948**	1.522
	(0.248)	(0.197)	
High Sit. Strain	2.453**	1.229**	2.816**
	(0.343)	(0.267)	
Subjective Strain	0.241**	0.280**	-0.750
	(0.041)	(0.032)	
Accumulated Stain	0.023	0.001	0.607
	(0.028)	(0.023)	
Low Self-Control	0.104**	0.096**	0.250
	(0.025)	(0.020)	
Trait Anger	0.074	0.007	1.008
	(0.048)	(0.046)	
Peer Violence	0.314+	0.190	0.514
	(0.178)	(0.163)	
Prior Violence	0.215	0.526**	-1.190
	(0.174)	(0.195)	
Morality	-0.549**	-0.643**	0.636
	(0.103)	(0.106)	
Age	-0.019	0.011	-0.842
	(0.028)	(0.022)	
Hispanic or Latino	0.344	1.015**	-1.580
	(0.332)	(0.265)	
Other Race/Ethnicity	0.344	0.725	0.530
	(0.542)	(0.473)	
Constant	4.946**	3.202**	1.266
	(1.037)	(0.907)	
LL	-2842.546	-2871.703	
Random Intercept	2.332	2.266	
	(0.125)	(0.099)	

Regression coefficients with standard errors in parentheses. * $p < 0.05$, ** $p < 0.01$

These results present several important gender differences in response to situational stimuli. Situational strains are stronger predictors of violent behavioral intentions for men than for women, though the coefficients are only significantly different for situations with high levels of negative stimuli. The effect of high levels of situational strain, for example, is 99% greater for men than women. In addition to this substantive difference, the coefficients for high magnitude situational strain also differ

significantly for men and women. This implies that men are more likely to indicate violent behavioral intentions in response to strain than women thereby supporting hypothesis 15. There is no statistically significant gender difference in subjective strain.

Psychologists, sociologists, and criminologists suggest that gender differences in behavioral responses are reflective of gender differences in emotional responses (Broidy and Agnew, 1997; Campbell, 1993; Mirowsky and Ross, 1995; Vigil, 2007, 2008). Specifically, men are hypothesized to be more likely to respond to situational stimuli primarily with anger, while women are expected to report concomitant emotional responses including anger and fear. Moreover, the anger experienced by men is hypothesized to be more likely to result in aggression than the anger experienced by women.

Table 6.3 presents descriptive statistics for responses to situational stimuli by gender. These descriptive statistics indicate that there are statistically significant differences in the average emotional responses to vignettes by gender. Females are more likely to report being angry and afraid than males.

Table 6.3. Responses to Situational Strain by Gender

	Males		Females		
Variable	Mean	Standard Deviation	Mean	Standard Deviation	t
Situational Anger	7.628	2.512	7.843	2.748	5.304
Situational Fear	3.207	2.971	3.909	3.403	5.071

These results support prior research indicating that women are as or more likely than men to experience anger as the result of strain. The difference in fear responses, however, may be important to understanding gender differences in violent behavioral

intentions. Expressed fear is predicted to lead to submission and aversion behaviors (Vigil, 2009). This difference in anticipated fear may account for gender differences in the effects of situational stimuli on violent behavioral intentions.

The multi-level regression models presented in Table 6.4 evaluate these claims. Having established that there are gender differences in strain responses in Table 6.2, these models add emotional responses to each model to determine if emotional responses account for these gender differences. These split sample models include all of the independent variables used in the models from Table 6.2 and variables representing situational fear and anger.

Though the raw coefficients for the situational strain measures are still larger for men than for women, there are no statistically significant differences in these coefficients across male and female models (though the coefficient for high situational strain is borderline significant across gender). This implies that the gender differences in emotional responses are a plausible partial explanation for gender differences in violent behavioral intentions. Though there are no statistically significant differences in the coefficient sizes for the fear response variable by gender, it is worth noting that fear is a significant negative predictor of violent behavioral intentions for women but not for men. This result suggests that fear may reduce the likelihood of reporting violent behavioral intentions for women only and, given that women are more likely to report higher levels of fear than men (see Table 6.3), it is plausible that differences in situational fear account for some of the gender differences in violence. These results also support the claim that the type of anger experienced by men is more likely to lead to violence than the type of anger experienced by women. Though anger is a positive and statistically significant

predictor of violent behavioral intentions for both men and women, the effect of anger is significantly greater for men than women. Therefore, the fear and anger results suggest that there are important gender differences in emotional responses to strain and that these differences may help to explain behavioral differences in men and women.

Table 6.4. Emotional Responses and Differences in Violent Behavioral Intentions between Males and Females: Random-Intercept Multilevel Regression Coefficients

	Males	Females	Paternoster et al. (1998) *z*
Low Negative Stimuli	0.810**	0.573**	0.797
	(0.235)	(0.182)	
Medium Neg. Stimuli	1.153**	0.937**	0.699
	(0.242)	(0.192)	
High Neg. Stimuli	1.993**	1.204**	1.856+
	(0.335)	(0.262)	
Subjective Strain	0.055	0.172**	-1.965*
	(0.045)	(0.039)	
Situational Anger	0.454**	0.323**	2.100*
	(0.047)	(0.041)	
Situational Fear	0.004	-0.062*	1.314
	(0.041)	(0.029)	
Accumulated Strain	0.015	-0.001-	0.470
	(0.026)	(0.022)	
Low Self-Control	0.096**	0.091**	0.168
	(0.023)	(0.019)	
Trait Anger	0.090	0.033	0.916
	(0.044)	(0.044)	
Peer Violence	0.291+	0.144	0.645
	(0.163)	(0.158)	
Prior Violence	0.171	0.412*	-0.973
	(0.160)	(0.189)	
Attitudes toward violence	-0.482**	-0.571**	0.635
	(0.095)	(0.103)	
Age	-0.017	0.025	-1.257
	(0.026)	(0.021)	
Hispanic or Latino	0.149	0.901**	-1.885+
	(0.305)	(0.257)	
Other Race/Ethnicity	0.404	0.631	-0.336
	(0.496)	(0.458)	
Constant	2.832**	1.222	1.200
	(0.986)	(0.910)	
LL	-2101.946	-2842.546	
Random Intercept	2.097	2.189	
	(0.117)	(0.097)	

Regression coefficients with standard errors in parentheses. * $p < 0.05$, ** $p < 0.01$

The models presented in Table 6.4 present another interesting gender difference. Comparing the results of Table 6.2 and 6.4 suggests that the addition of emotional response variables appears to mediate the effect of subjective strain on violent behavioral intentions for men but not women. This result is surprising and is not connected to any of the hypotheses that frame this chapter. This may suggest that subjective strain and emotional responses are more important for understanding the strain-crime link for women and that situational strain is more important for understanding the strain-crime link for men. Additional models (not presented) note other interesting gender differences. The interaction between self-control and situational strain significantly predicts violent behavioral intentions for men but not women. These results suggest that additional theorizing is needed to explain the role of gender in the strain process. It is plausible that strain is a more direct predictor of behavior for men than women and that the emotional mediation process described by general strain theory is better suited for explaining female crime. Conversely, the strain conditioning process appears to be better suited for explaining male crime.

Discussion

Broadly speaking, the results of this situational examination of general strain theory are more supportive of general strain theory than individual-level research. Results provide support for all hypotheses except hypothesis 13 (that negative emotionality conditions the strain process). The basic strain hypothesis that strain predicts violence is supported. Controlling for a variety of factors, both situational and subjective measures of situational strain predict violent behavioral intentions. The

mediation hypothesis was also partially supported. Emotional responses reduce the size of the effect of strain on violent behavioral intentions by about 50%. It should be noted that strain has a significant direct relationship with violent behavioral intentions even after controlling for emotional responses, suggesting that while the emotional response process is important, other factors may also link strain to behavior. Finally, the current research also found evidence for one of GST's conditioning arguments. Specifically, self-control conditions the relationship between strain and violent behavioral intentions. This finding is important, as not everyone who experiences strain and negative emotions responds with illegitimate coping strategies. Variation in self-control may help to explain some of this variation in coping strategies. Interestingly, negative emotionality does not condition the strain-crime process. On the surface, this might seem to suggest that emotional disposition is unimportant for understanding responses to strain. However, it is possible that this reflects problems with the measure of self-control used in this research, which includes aspects of temper and hostility. Therefore, people who lack self-control also tend to have hostile personality traits. Indeed, the correlation between the angry disposition and self-control variables is 0.435. Though this does not introduce any formal collinearity problems into the analysis, it should be noted that any support for the self-control conditioning process is, by proxy, also partial support for the negative emotionality process.

Unfortunately, I do not have measures of other potential conditioning factors, like religiosity, coping resources, or social support (Agnew, 1992; Jang and Johnson, 2005). Future research should examine these factors at the situational level too. Still, the self-control results suggest that individual-level traits condition the relationship between

strain and crime at the situational level. Though future situational research including a wider variety of potential conditioning factors is necessary to provide a more comprehensive test of the conditioning arguments of general strain theory, I suggest that these conditioning arguments hold some weight and should not be discarded.

These results also support many of the gender-related hypotheses of general strain theory. In summary, there are gender differences in responses to strain. Men are more likely to respond to situational strain with violent behavioral intentions than women. Emotional responses partially account for these differences. The fear response, in particular, reduces the likelihood that someone would report violent behavioral intentions. This is important because women are more likely than men to report anticipating situational fear as a response to a vignette. Gender differences in situational fear, therefore, may account for some of the gender differences in violent behavioral intentions. Interestingly, women are also more likely to experience anger than men. Despite this, the effect of anger on men's violent intentions is greater than the effect of anger on women's violent intentions. This supports the idea that either the type of anger experienced by men is qualitatively different than the type of anger experienced by women or that men and women cope differently with anger. More specifically, it suggests that the anger experienced by men is more likely to be outward-directed and lead to aggressive behaviors. Additional analyses suggest that there is no statistically significant interaction between situational anger and situational fear for men, women, or the combined sample. This suggests that while women are more likely than men to experience concomitant emotional responses, the effects of fear and anger appear to be distinct.

Taken together, the current research suggests that general strain theory, at least at the situational level, provides a reasonable explanation for gender differences in violent behavior. More broadly, this implies that traditional gender neutral criminological approaches should not be hastily scrapped in favor of gender specific theories.

Mazerolle (1998) described Agnew's work on general strain theory as a "reasonable, sound foundation for revitalizing strain explanations at the individual level." I would expand on this and note that general strain theory provides a reasonable and sound explanation for behavior at the situational or micro-social level. Though Agnew clearly outlined both individual and situational arguments early in his development of general strain theory, criminological research focuses almost exclusively on using GST to explain criminality. Recent individual-level studies have called into question the mediating and conditioning processes of general strain theory (Botchkovar et al., 2009; Tittle et al, 2008). The current situational examination of general strain theory largely provides support for both processes. The discrepancy in results between the current situational and recent individual-level research on general strain theory might suggest that the mediating and moderating processes presented by general strain theory are better suited for explaining specific situational events. Other processes, like Slocum's (2010) strain proliferation argument, may be better suited for explaining individual-level differences. Though these processes are largely outside of the scope and goals of this research, Slocum's (2010) stress proliferation argument suggests that the experience of strains over the life course shape how people respond to future stressors. This argument, similar in concept to Wikström and Treiber's (2009) moral education argument, implies

that a developmental learning argument focused on strain experiences may explain variation in criminality.

Though these results support the strain process and suggest the importance of examining situational processes, more research is needed to draw firm theoretical conclusions regarding general strain theory. The current research focuses on one specific stressor: situational provocation. This form of strain, which tends to yield expressive and immediate responses, may not reflect the situational strain process for other forms of strain. Similarly, the current research examines only a single outcome (violent behavioral intentions). Other illegitimate outcomes, like verbal escalation, and other legitimate outcomes (like walking away or attempting to verbally deescalate the situation) may play out differently. Additional situational research, focusing on other forms of situational strain and examining other responses to situational strain, is needed to more fully test and develop the general strain perspective.

CHAPTER 7: CONCLUSION

The two primary goals of this dissertation are to provide a set of testable hypotheses relating situational factors to violent events and to demonstrate the utility of the factorial vignette method as a quantitative technique for evaluating these hypotheses. Traditional vignette studies ask survey respondents to describe how they would respond if placed in a specific situation. The factorial vignette study expands on the traditional vignette by allowing aspects of the situation to vary randomly from vignette to vignette. By allowing situational factors to vary across vignettes, it is possible to evaluate the degree to which variation in situational factors accounts for variation in how people respond to a given situation. The factorial element of the design also ensures that situational factors are uncorrelated with each other and with individual-level characteristics.

Broadly speaking, the factorial vignettes used in the current research identified several individual and situational predictors of violent behavioral intentions. In Chapter 4, results demonstrate that the content of a situation strongly predicts responses to situational stimuli. Situations involving physical provocation, aggressive cues, withdrawal cues, and the attention of audience are all more likely to trigger violent behavioral intentions than other situations. These situational variables predict violent behavioral intentions even after controlling for a variety of individual-level factors that are known to be associated with violence. Physical provocation, in particular, is a strong and significant predictor of violent behavioral intentions across all models. This suggests that provocation should play a central role in any situational examination of violence.

These results suggest that the factorial vignette design is a useful methodological tool for examining the role of situational factors. In addition to demonstrating the utility

of the method, the results of Chapter 4 are important for at least two reasons. First, these results provide support for the idea that situational factors matter. Recently, Collins (2008) suggested that sociological and criminological research and theorizing on violence was limited by its narrow focus on individual-level factors. The results of Chapter 4 support Collins' (2008) and Wikström's (2006) claims and suggest that future sociological and criminological research and theorizing on violence should clearly define the situational processes through which behavior occurs. Second, the significant results presented in Chapter 4 demonstrate that many of the situational factors identified by sociological and psychological research are important predictors of violent behavioral intentions, even after controlling for a host of individual-level factors that the criminological literature identifies as predictors of violence.

I believe that this research also makes important theoretical contributions. Criminological theories largely fail to provide specific hypotheses regarding situational factors. Some theories, like situational action theory and general strain theory, provide an explicit role for situational factors in the etiology of crime. Even these theories, however, do not provide a solid foundation for identifying the types of situational factors that may increase the likelihood of violence within a given situation. Instead, these criminological theories present potential social psychological and cognitive processes through which situational stimuli influence behavior. Therefore, the current research adopted an interdisciplinary approach to determine which specific situational factors might influence violent outcomes. Specifically, the current research pulls from the sociological and psychological literatures on aggression and proposes that situational content (provocation, aggressive cues, withdrawal cues, and audience effects) and the

characteristics of actors within a situation (race, appearance, and physical size) should influence the likelihood that a person would respond with violence in a given situation. In terms of integrating these hypotheses with the criminological literature, my general argument is that these situational factors activate the processes described by two criminological theories (situational action theory and general strain theory).

In terms of situational action theory, the content of the situation and the characteristics of actors in a situation are hypothesized to provide situational motivation for violent behavior and thus affect the moral calculus that determines if violence is viewed as an acceptable action in a given situation (Wikström and Treiber, 2009). In terms of general strain theory, the content of the situation and the characteristics of actors in a situation are hypothesized to play the role of situational and subjective strains that trigger emotional and behavioral responses, including anger and aggression (Agnew, 2006a).

In Chapters 5 and 6, I presented situational tests of situational action theory and general strain theory. Regression results generally, though not unequivocally, support both perspectives. The chapter on situational action theory suggests that morality is a strong predictor of violence at the situational level. The morality measure used in the current research significantly predicts violent intentions across all models and, perhaps more importantly, greatly reduces the magnitude of the relationship between violent behavioral intentions and other individual-level factors known to predict violence (like delinquent peers and prior violence). This is an important result and suggests that individual-level survey research on crime and criminality should control for moral dispositions.

The situational analysis presented in Chapter 5 indicates that situational action theory provides a plausible situational explanation for violence. According to situational action theory, violence occurs when individuals with violent propensities are exposed to situations that create inducements for violence. Specifically, violence occurs in these situations because individuals with violent propensities see violence as a clear moral choice in response to situational provocations. Results presented in Chapter 5 show a significant interaction between morality and provocation providing general support for the situational process described by situational action theory. Though there have been a few other tests of situational action theory (Antonaccio and Tittle, 2008; Gallupe and Baron, forthcoming; Wikström and Svennson, 2010), the current research provides the first situational test of the theory. This is an important contribution to the situational action perspective, as situational action theory emphasizes the role of agency and choice in the commission of violence. The current research design evaluates violent situational decision-making.

In terms of general strain theory, results presented in Chapter 6 provide support for the mediating, conditioning, and gender arguments made by GST. Recent individual-level research calls into question the mediating and conditioning arguments proposed by GST (Botchkovar et al., 2009; Tittle et al., 2008). The general strain results, therefore, highlight the importance of adopting a situational perspective, as the current research provides support for a number of processes not supported at the individual-level.

Taken together, these results highlight the importance of adopting the situation as the unit of analysis for research on criminal events. It is not clear to me that individual-level research can address the event-based social psychological and cognitive processes

described by criminological theories. These processes refer to micro-social situational behaviors. The outcome variable for most individual-level research is the number of crimes committed or a projection of the number of crimes a person will commit in the future. The outcome of these processes, however, is a specific crime or violent event. Individual-level research could not have identified physical provocation, aggressive cues, withdrawal cues, and audience attention as important situational predictors of violent intentions.

Therefore, the appropriate level of analysis for studying micro-level processes is the situation, not the individual. To be clear, I do not seek to diminish the importance of individual-level research. Theories like general strain theory and situational action theory attempt to explain both differences in criminality and specific situational events. Individual-level research is well-suited for examining criminality arguments and, therefore, is crucial to the theoretical development process. My point is simply to highlight that the goals of individual-level and situational research are different. Individual-level research explains individual-level variation in criminal behavior. This focus on criminality attempts to explain why some people commit more crimes than others. Situational research, conversely, attempts to explain specific criminal events. Though individual and situational explanations are related, it is not necessary that the processes explaining specific situational outcomes also explain individual-level differences in criminality. For example, from the general strain perspective, the accumulation of certain types of strains may be the primary predictor of criminality at the individual level, while the specific emotional response to a given strain may be the primary predictor of a specific criminal event.

The social psychological processes described by situational action and general strain theories of crime explain specific situational outcomes that need to be evaluated at the situational level. To be clear, this situational process is clearly influenced by individual-level factors. The results from Chapters 4, 5, and 6 indicate that individual-level variables are, in addition to situational factors, important predictors of situational outcomes. This result is expected because both theories suggest that individual-level traits influence delinquent outcomes. People with certain backgrounds and certain individual-level traits will respond to situational stimuli differently than people with different backgrounds and different traits. Situational research, however, can statistically account for these individual-level factors (either indirectly through the use of random or fixed effects or through direct measurement of prior experiences). The appropriate outcome for situational research is the situational event and the appropriate predictor variables include both situational and individual-level factors. Not all criminological theories present situational arguments. Some theories focus exclusively on criminality and it is reasonable, therefore, to test these theories exclusively at the individual-level. I argue, however, that those theories that present situational arguments should be tested at the situational level.

Limitations

There are a number of important limitations to the current research. First and foremost, the current research examines violent behavioral intentions and not actual violence. Given that people may behave differently than they intend, the results of the current research may not apply to actual violent behavior. Three factors help to mitigate this concern. First, the examination of behavioral intentions is an accepted and

recommended practice in criminology (Agnew, 2006b; Ganem, 2010; Mazerolle and Piquero, 1997, 1998; Mazerolle, Piquero, and Capowich 2003). Similarly, psychologists utilize violent intentions as proxy measures for violence and, in fact, incorporate intentions into their definitions of aggression (Lindsay and Anderson, 2000). Second, a broad literature suggests that behavioral intentions are correlated with actual behaviors when respondents view a scenario as realistic (Fishbein and Ajzen, 1975; Green, 1989; Jensen and Stitt, 1982; Kim and Hunter, 1993). Third, as discussed in Chapter 3, the vignette used in the current research is based on prior studies which found the vignette to be realistic, was found to be realistic by participants of a series of focus groups, and is described as realistic by the vast majority of respondents in this study. Moreover, early criminological research suggests violent intentions are correlated with past behavior and that in the cross-sectional research, "there is no pattern of differences that would justify choosing one measure over the other" (Jensen and Stitt, 1982: 50). Indeed, in the current research past violence experiences is a significant predictor of violent behavioral intentions. This suggests that violent intentions, though not perfect predictors of how an individual would act in a given situation, capture something about a person's aggressive tendencies and how likely they would be to engage in violence. Therefore, I am comfortable concluding that the results presented in this dissertation likely relate to violence.

The degree to which these results are correlated to actual violence in similar situations, however, is a matter for future research. None of the studies which have examined the link between intentions and behavior have examined violence. This remains an important, though difficult, task for future research. Unlike the behaviors

discussed in the meta-analyses of Kim and Hunter (1993), it is generally not possible to place research subjects into actual situations to determine the link between their words and deeds. Still, this is an important task for violence researchers to address. Further elaboration on the link between violent intentions and violent behavior will shed considerable light on the validity of the results of the current and prior research on violent intentions.

There may also be specific limitations with the scenario described in the current research. The vignette, despite being pretested in focus groups, found realistic by the current sample, based on scenarios that have been used in prior research (Ganem, 2010; Mazerolle and Piquero, 1997, 1998), and depicting a type of situation that has generally been described as conducive to violence (Graham et al., 2010), may not be equally applicable to all people. Males and heterosexuals, for example, may be better able to identify with the scenario depicted. Though I suggest that the general role of provocation, aggressive cues, and audience effects are likely to matter in a variety of situations, they may matter more or less for certain groups in certain settings. For example, women may be more likely to respond to these situational cues in vignettes that depict threats to their family members.

The vignette methodology may have an additional short-coming. It may be useful for examining some situational factors and not others. Specifically, I only found consistent evidence linking the content of a situation to violent behavioral outcomes. Conversely, I found very little evidence linking the characteristics of actors of the vignettes to respondent responses. Specifically, the race, dress appearance, and physical size of the other person involved in a given scenario appear unrelated to violent

behavioral intentions. This result is contrary to a sizable body of literature on race, appearance, and physical size (see Chapter 2).

It is difficult to evaluate the meaning of this null finding. It may suggest that the content of the situation is simply more important for understanding violence than the characteristics of actors involved in a situation. Alternatively, this null finding may highlight the limitations of text-based vignettes. Race, appearance, and size are factors that people process visually. For example, research on implicit racial bias demonstrates that visual representations of race are associated qualitative judgments (Devine, 2001). It may be that these factors do predict violence, but that their effect on perceptions and behavioral intentions is largely subconscious and immediate through visual input. Without actual images to prime their limbic system, it is possible that respondents were unable to accurately evaluate the visual aspects of the vignettes. Further, it is possible that the deliberation that goes along with the vignette methodology leads to desirability bias (in that people did not want to respond that they were more likely to have violent behavioral intentions against certain groups). Future research should begin to address these concerns by utilizing visual information (perhaps by presenting respondents with pictures or videos of a hypothetical situation) and by limiting the amount of time that respondents have to indicate their response to a given situation.

Also, while the current research shows that situational factors independently predict and interact with situational factors to predict violent behavioral intentions, individual-level factors may also mediate the relationship between situational factors and violence. This is because individual-level characteristics may explain variation in exposure to situations conducive to violence. People with less self-control, for example,

may be more likely to enter into situations where violence is a distinct possibility. The current research cannot address this possibility, as its quasi-experimental design ensures that situational and individual-level factors are unrelated and that statistical mediation is therefore impossible. Though it is likely to be a challenging endeavor, research utilizing natural data is better suited for this task.

Beyond the potential limitations of the vignette methodology, there are also limitations with the actual vignette used in this research. Though I engaged the social psychological and psychological literatures on aggression and attempted to measure several important situational factors, other situational factors may also predict violence. In some cases, it is difficult to envision the successful measurement of other situational factors. For example, alcohol use may increase the likelihood that a person responds to situational stimuli with violence (Graham et al., 2010). It is not clear though that adding a factorial dimension regarding alcohol use would at all capture the pharmacological effects of alcohol ingestion. Other factors may be measurable via the vignette methodology and are simply omitted from the current models. For example, it is possible that the interactions between the respondent's partner and the provocateur in the vignette could influence behavioral outcomes. Perhaps respondents would be more likely to report violent behavioral intentions if they felt as though their partner was sexually or romantically interested in the other person in the scenario. Unfortunately, there are practical constraints on the number of dimensions and levels per dimension that can be included in a factorial vignette. This limitation is mitigated by the fact that vignettes automatically control for factors that either do not vary or are omitted, but this situational

misspecification is still worrisome because the importance of these factors cannot be evaluated.

Similarly, the current research is limited by misspecification of individual-level variables. Though I collected data on several major correlates of crime, it is possible that other factors may mediate or condition the relationship between situational factors and violence. For instance, Jang and Johnson (2005) suggest that religiosity conditions the relationship between strain and crime. Also, the current study employs the perceived stress scale to measure accumulated strain. While capturing the idea of the accumulation of strain from the GST perspective, this measure is not directly comparable to the strain measures employed in prior research. Though early versions of the survey instrument included both religiosity and traditional general strain measures, these questions were dropped from the final version of the survey over concerns about survey length. Given that no single study ever contains every desirable variable this is not a serious limitation, though it does point to the need for more focused situational violence research on topics like religiosity and accumulated strain in the future.

It should also be noted that the results presented here are based on a sample of college students from two institutions of higher learning from the United States Southwest. Therefore, these results are not generalizable to the general population of adults because college students are not representative of American adults. Moreover, these results may not be generalizable even to the population of college students. The demographics of institutions where recruitment occurred may be significantly different from the demographics of colleges and universities in the U.S. as a whole. Though this is a true limitation of the current research, the goal of the current research was simply to

demonstrate the utility of the situational perspective and to contribute to the testing of criminological theory. Generalizability is not required to achieve either of these goals, though it is true that future research on new populations from different areas is necessary to examine the validity of these results.

Finally, while the factorial vignette design focuses on specific situations and is better suited for examining micro-social processes than traditional individual-level research, factorial vignettes are only useful for studying the end result of a given situational process. Respondents are presented with a random, yet complete, scenario and asked how they would respond. In truth, people may engage in different behaviors earlier in the scenario. For example, in the scenario used in the current research, the respondent's character always tries to grab his or her partner's hand to exit the confrontation. In reality, some people may have engaged in behaviors that further escalated the situation (for example, by immediately insulting or shoving the other person), while others might have engaged in deescalating behaviors (for example, by talking things out or by ignoring the other person in the scenario). These mid-vignette responses are likely to shape the way that the rest of situation unfolds. Hepburn (1973: 427) notes that "violent behavior is constructed within a situation, between two or more persons, through a process of interaction." Unfortunately, it is likely not feasible to address the development of a given situation via the use of factorial vignettes.

Implications & Future Research

Despite the above limitations, I believe that the current research provides meaningful contributions to the criminological endeavor. The current research provides a

distinct test of two criminological theories, emphasizes the need for additional research at the situational level, and demonstrates the utility of the factorial vignette methodology for theory testing. The theory testing chapters highlight the benefits and importance of studying situations for criminology more broadly. Many criminological theories discuss situational processes through which violence occurs. These processes can only be evaluated at the situational-level. Criminological research on violence has been rightfully critiqued for not evaluating theoretical processes and more broadly for not linking people and their social contexts (Collins, 2008; Wikström, 2006). By studying situations, however, criminologists can address this critique and develop a more nuanced understanding of crime and criminality. In addition to being theoretically important, situational research also has the potential to produce important policy implications. Identifying the situational factors that are associated with violence has implications for situational crime prevention. For example, training formal social control agents (police, correctional officers, and security guards) to spot situational factors likely to lead to violence could allow for earlier and safer interventions in potentially violent contexts (public gatherings, bars/night clubs, prison yards, etc.).

Moreover, the current research suggests that the integration of psychological and social psychological results into criminological research designs is fruitful. A wide range of scholars study aggression and violence. I strongly believe that criminological explanations for aggression and violence can be strengthened by acknowledging and incorporating the results of research from outside disciplines and by fulfilling the interdisciplinary promise of criminology. The current research, for example, engages the social psychology and psychology literatures on aggression and violence to provide

situational tests of situational action theory and general strain theory. The psychological literature identifies several discrete situational factors that are associated with violent behavioral intentions. The integrative aspects of the current research, therefore, allowed for theoretically informed situational tests of the situational processes described by situational action theory and general strain theory. These tests provide new theoretical and empirical insights. In terms of situational action theory, the current research suggests that the situational process described by situational action theory is plausible. Prior individual-level research on situational action theory could only examine the implications of situational action theory on criminality and could not examine the key process described by the theory (that propensity X exposure leads to violent actions). In terms of general strain theory, the current research indicates that the general strain mediating and conditioning processes are perhaps more strongly supported at the situational level than at the individual-level.

The most obvious future extensions of the current research are to apply the current design to other populations. These efforts will likely help to demonstrate the utility of the situational perspective and will allow for broader generalization of specific statistical results. Beyond replication efforts, I also believe that the factorial vignette method can be applied to a number of other interesting outcomes. For instance, factorial vignettes can be used to study other forms of violence (like instrumental violence or the police use of force), other crimes (like theft), and other forms of deviance and antisocial behavior (like sexual infidelity). The specific factorial designs used for each outcome will require careful thought and consideration and will likely require the integration of various academic literatures. Though a time intensive process, I believe that a factorial

vignette research agenda can contribute greatly broadly to micro sociology and more generally to the sociology of decision-making and agency.

Though the factorial design is better suited for exploring situational processes than traditional survey methods, future research should more closely examine the interactional process that produces violence. Dynamic data modeling (DDM) may provide an interesting method for more fully examining situational dynamics (Gonzales, Vanyukov, and Martin, 2005). DDM research, which has been successfully used to study decision-making in regards to military commands, stock market investing, and various management applications, provides a simulated scenario in which respondents are provided with the beginning a scenario and are asked to make situated choices describing what they would do in that moment of time. Their responses shape the way the situation unfolds, thereby allowing for dynamic information on decision-making and the process by which behavioral outcomes emerge. In the case of violence, DDM research would present respondents with a confrontation situation and various behavioral choices that would, with some element of randomness included to model actions outside of respondent's control, shape the way that the simulated confrontation played out. By recording information about the situational factors that a respondent encountered, the respondent's responses to factors, and a host of individual-level information, it may be possible to better understand the process through which violence occurs and the factors associated with situated choices. In addition to DDM research, experimental designs where subjects are exposed to situational stimuli and their responses are recorded may also be helpful. Regardless of whether future research on violence adopts experimental, dynamic data modeling, factorial vignettes, or other approaches, the current research

demonstrates the importance of adopting a situational focus and suggests that criminologists should place a greater emphasis on studying situational dynamics.

APPENDICIES

Appendix A: Sample Female Vignette

It's Friday night and you and your partner, who you have been dating for six months, are at a party and are having a few drinks. The room you are in is crowded and you see a lot of your friends. After finishing your drink, you excuse yourself and go to the bathroom. When you return, you see that a Black female is sitting in your spot and flirting with your partner, who appears visibly annoyed by this person. You notice that this person is significantly larger than you and is wearing tight jeans, a tank top, and has tattoos on her arms. You walk over and ask the woman to move so that you can have your seat back. The other woman stands up and gets in your face. You don't like this very much, so you reach for your partner's hand, indicating that you'd like to leave. The other female calls you a bitch and tells you to get lost. Your partner moves to your side and urges you to walk away. The room suddenly gets quiet, as everyone turns to watch and see what happens next. The other female mumbles something under her breath and walks away.

Appendix B: Sample Male Survey

INSTRUCTIONS

Three short scenarios are presented on the following three pages. Each of these scenarios depicts a confrontation between two people. Though the scenarios may seem similar, there are small differences in each version.

Please read each scenario carefully and then answer the questions that follow by circling the response that you feel most closely describes how you would feel or respond if placed in that situation.

The pages that follow the vignette collect a variety of demographic, historical, and attitudinal data. Please note that no personal identifiers are required and all responses are confidential.

Thank you very much for taking the time to fill out this survey!

Scenario: It's Friday night and you and your partner, who you have been dating for six months, are at a party and are having a few drinks. The room you are in is crowded and you see a lot of your friends. After finishing your drink, you excuse yourself and go to the bathroom. When you return, you see that a young Black male is sitting in your spot and is flirting with your partner, who appears visibly annoyed by this person. You notice that this person is about your size and is wearing baggy jeans, a muscle shirt, and has tattoos on his arms. You walk over and ask the guy to move so that you can have your seat back. The other male stands up and gets in your face. You don't like this very much, so you reach for your partner's hand, indicating that you'd like to leave. The other male shoves you hard, nearly causing you to fall over. Your partner calls the other guy an asshole. The room suddenly gets quiet, as everyone turns to watch and see what happens next. The other male mumbles something under his breath and walks away.

If you were in this situation, please indicate how likely you would be to do each of the following actions by circling a number from 0 (definitely would not do this) to 10 (definitely would do this).

Punch or strike the other male.	0	1	2	3	4	5	6	7	8	9	10
Push or shove the other male.	0	1	2	3	4	5	6	7	8	9	10
Insult the other male / call him a name.	0	1	2	3	4	5	6	7	8	9	10
Say nothing, but stare at the other male.	0	1	2	3	4	5	6	7	8	9	10
Turn around and walk away with your partner.	0	1	2	3	4	5	6	7	8	9	10

How wrong do you believe it would be for someone in this situation to physically attack or shove the other person?
(not at all wrong) 0 1 2 3 4 5 6 7 8 9 10 (very wrong)

Do you believe that most males would probably attack or shove the other person?
(definitely not) 0 1 2 3 4 5 6 7 8 9 10 (definitely)

If you were in the scenario, rate the degree to which this situation would make you feel the following emotions by circling a number form 0 (Not at all) to 10 (Extremely).

Angry	0	1	2	3	4	5	6	7	8	9	10
Stress/Tense	0	1	2	3	4	5	6	7	8	9	10
Afraid	0	1	2	3	4	5	6	7	8	9	10
Jealous	0	1	2	3	4	5	6	7	8	9	10

Please indicate how strongly you agree or disagree with each statement by circling the response you most identify with.
The scenario presented in this vignette is realistic and depicts a situation that might actually happen at a party.
Strongly Disagree Disagree Neither Agree nor Disagree Agree Strongly Agree

I can identify with this scenario.
Strongly Disagree Disagree Neither Agree nor Disagree Agree Strongly Agree

Scenario: It's Friday night and you and your partner, who you have been dating for six months, are at a party and are having a few drinks. The room you are in is crowded and you see a lot of your friends. After finishing your drink, you excuse yourself and go to the bathroom. When you return, you see that a young Black male is sitting in your spot and is flirting with your partner, who appears visibly annoyed by this person. You notice that this person is significantly smaller than you and is is unkempt and is wearing bright and obnoxious clothes. You walk over and ask the guy to move so that you can have your seat back. The other male stands up and gets in your face. You don't like this very much, so you reach for your partner's hand, indicating that you'd like to leave. The other male calls you an asshole and tells you to get lost. Your partner moves to your side and urges you to walk away. The other people in the room do not seem to be paying any attention to what is going on. The other male makes a fist and looks ready to fight.

If you were in this situation, please indicate how likely you would be to do each of the following actions by circling a number from 0 (definitely would not do this) to 10 (definitely would do this).

Punch or strike the other male.	0	1	2	3	4	5	6	7	8	9	10
Push or shove the other male.	0	1	2	3	4	5	6	7	8	9	10
Insult the other male / call him a name.	0	1	2	3	4	5	6	7	8	9	10
Say nothing, but stare at the other male.	0	1	2	3	4	5	6	7	8	9	10
Turn around and walk away with your partner.	0	1	2	3	4	5	6	7	8	9	10

How wrong do you believe it would be for someone in this situation to physically attack or shove the other person?
(not at all wrong) 0 1 2 3 4 5 6 7 8 9 10 (very wrong)

Do you believe that most males would probably attack or shove the other person?
(definitely not) 0 1 2 3 4 5 6 7 8 9 10 (definitely)

If you were in the scenario, rate the degree to which this situation would make you feel the following emotions by circling a number form 0 (Not at all) to 10 (Extremely).

Angry	0	1	2	3	4	5	6	7	8	9	10
Stress/Tense	0	1	2	3	4	5	6	7	8	9	10
Afraid	0	1	2	3	4	5	6	7	8	9	10
Jealous	0	1	2	3	4	5	6	7	8	9	10

Please indicate how strongly you agree or disagree with each statement by circling the response you most identify with.
The scenario presented in this vignette is realistic and depicts a situation that might actually happen at a party.
Strongly Disagree Disagree Neither Agree nor Disagree Agree Strongly Agree

I can identify with this scenario.
Strongly Disagree Disagree Neither Agree nor Disagree Agree Strongly Agree

Scenario: It's Friday night and you and your partner, who you have been dating for six months, are at a party and are having a few drinks. The room you are in is crowded. After finishing your drink, you excuse yourself and go to the bathroom. When you return, you see that a young White male is sitting in your spot and is flirting with your partner, who appears visibly annoyed by this person. You notice that this person is about your size and is is unkempt and is wearing bright and obnoxious clothes. You walk over and ask the guy to move so that you can have your seat back. The other male stands up and gets in your face. You don't like this very much, so you reach for your partner's hand, indicating that you'd like to leave. The other male calls you an asshole and tells you to get lost. Your partner moves to your side and urges you to walk away. The room suddenly gets quiet, as everyone turns to watch and see what happens next. The other male makes a fist and looks ready to fight.

If you were in this situation, please indicate how likely you would be to do each of the following actions by circling a number from 0 (definitely would not do this) to 10 (definitely would do this).

Punch or strike the other male.	0	1	2	3	4	5	6	7	8	9	10
Push or shove the other male.	0	1	2	3	4	5	6	7	8	9	10
Insult the other male / call him a name.	0	1	2	3	4	5	6	7	8	9	10
Say nothing, but stare at the other male.	0	1	2	3	4	5	6	7	8	9	10
Turn around and walk away with your partner.	0	1	2	3	4	5	6	7	8	9	10

How wrong do you believe it would be for someone in this situation to physically attack or shove the other person?
(not at all wrong) 0 1 2 3 4 5 6 7 8 9 10 (very wrong)

Do you believe that most males would probably attack or shove the other person?
(definitely not) 0 1 2 3 4 5 6 7 8 9 10 (definitely)

If you were in the scenario, rate the degree to which this situation would make you feel the following emotions by circling a number form 0 (Not at all) to 10 (Extremely).

Angry	0	1	2	3	4	5	6	7	8	9	10
Stress/Tense	0	1	2	3	4	5	6	7	8	9	10
Afraid	0	1	2	3	4	5	6	7	8	9	10
Jealous	0	1	2	3	4	5	6	7	8	9	10

Please indicate how strongly you agree or disagree with each statement by circling the response you most identify with.
The scenario presented in this vignette is realistic and depicts a situation that might actually happen at a party.
Strongly Disagree Disagree Neither Agree nor Disagree Agree Strongly Agree
I can identify with this scenario.
Strongly Disagree Disagree Neither Agree nor Disagree Agree Strongly Agree

Please answer the following demographic questions by marking the appropriate response with a check or by filling in the blank.

1. What is your sex? _____ Female _____ Male

2. How old were you on your last birthday? _____

3. What year are you in college?
_____ Freshman
_____ Sophomore
_____ Junior
_____ Senior

4. Are you of Hispanic or Latino descent?
_____ Yes
_____ No (If no, skip to question 6)

5. What is your Hispanic or Latino background? You may give more than one answer.
_____ Mexican/Mexican American
_____ Chicano/Chicana
_____ Cuban / Cuban American
_____ Puerto Rican
_____ Central / South American
_____ Other_____

6. What is your race? You may give more than one answer.
_____ White
_____ Black or African American
_____ American-Indian or Native American
_____ Asian or Pacific Islander
_____ Other _____

7. What is your current marital status?
_____ Married (If your answer is "married" skip to question 9)
_____ Divorced
_____ Widowed
_____ Separated
_____ Never married

8. If you are not currently married, which of the following applies to you?
_____ Currently in a serious monogamous relationship and living with this person
_____ Currently in a serious monogamous relationship, but not living with this person
_____ Currently in a casual dating relationship with one person
_____ Currently dating more than one person
_____ Not currently dating anyone

9. What is your sexual orientation?
_____ Heterosexual
_____ Gay or Lesbian
_____ Bisexual
_____ Other (please specify: _____)

10. Are you currently employed?
_____ Yes
_____ No (If your answer is "no" skip to question 12)

11. If you are currently employed, how many hours per week do you work? _____

12. What is your personal average yearly income, from all sources?

_____ under $10,000
_____ $10,000-$19,999
_____ $20,000-$39,999
_____ $40,000-$59,999
_____ over $60,000

13. If you had to classify the social class of the family in which you grew up, which of the following categories would you say your family fell into?
_____ upper class
_____ upper-middle class
_____ lower-middle class
_____ working class

14. Compared to other people in your age group, how many close friends do you think you have?
_____Far fewer than average
_____Slightly fewer than average
_____Average
_____Slightly more than average
_____Far more than average

15. Overall, your friends are a very important part of your life.
_____ strongly disagree
_____ disagree
_____ neither agree or disagree
_____ agree
_____ strongly agree

Based on your knowledge, how many of your friends have engaged in the following behaviors over the past 12 months:

16. Have used illegal drugs, abused prescription drugs or engaged in binge drinking (five or more alcoholic drinks in a row)
_____ None
_____ Some of my friends
_____ Most of my friends

17. Stolen something from another person or business
_____ None
_____ Some of my friends
_____ Most of my friends

18. Vandalized property (that is, purposely damaged property that did not belong to them)
_____ None
_____ Some of my friends
_____ Most of my friends

19. Been in a minor fight or threatened to harm another person
_____ None
_____ Some of my friends
_____ Most of my friends

20. Been in a serious fight in which a person was or could have been seriously harmed
_____ None
_____ Some of my friends
_____ Most of my friends

In the past 12 months, how often have you done each of the following:

21. Used illegal drugs, abused prescription drugs or engaged in binge drinking (five or more alcoholic drinks in a row)
_____ Never
_____ 1 or 2 times
_____ 3 or 4 times
_____ 5 or more times

22. Stolen something from another person or business
_____ Never
_____ 1 or 2 times
_____ 3 or 4 times
_____ 5 or more times

23. Vandalized property (that is, purposely damaged property that did not belong to them)
_____ Never
_____ 1 or 2 times
_____ 3 or 4 times
_____ 5 or more times

24. Been in a minor fight or threatened to harm another person
_____ Never
_____ 1 or 2 times
_____ 3 or 4 times
_____ 5 or more times

25. Been in a serious fight in which a person was or could have been seriously harmed
_____ Never
_____ 1 or 2 times
_____ 3 or 4 times
_____ 5 or more times

How wrong do you think it is to engage in the following behaviors?

26. Use illegal drugs, abuse prescription drugs or engage in binge drinking (five or more alcoholic drinks in a row)
_____ Not wrong at all
_____ A little wrong
_____ Somewhat wrong
_____ Very wrong

27. Steal something from another person or business
_____ Not wrong at all
_____ A little wrong
_____ Somewhat wrong
_____ Very wrong

28. Vandalize property (that is, purposely damaged property that did not belong to them)
_____ Not wrong at all
_____ A little wrong
_____ Somewhat wrong
_____ Very wrong

29. Get into a minor fight or threaten to hurt another person
_____ Not wrong at all
_____ A little wrong
_____ Somewhat wrong
_____ Very wrong

30. Get in a serious fight in which a person could be seriously harmed
_____ Not wrong at all
_____ A little wrong
_____ Somewhat wrong
_____ Very wrong

31. I get into frequent arguments
_____ Never
_____ Rarely
_____ Sometimes
_____ Often

32. I feel angry throughout the day.
_____ Never
_____ Rarely
_____ Sometimes
_____ Often

33. I have uncontrollable outbursts of temper
_____ Never
_____ Rarely
_____ Sometimes
_____ Often

34. I have urges to beat or harm someone
_____ Never
_____ Rarely
_____ Sometimes
_____ Often

35. I have urges to break things
_____ Never
_____ Rarely
_____ Sometimes
_____ Often

36. I am easily annoyed or irritated
_____ Never
_____ Rarely
_____ Sometimes
_____ Often

37. I often act on the spur of the moment without stopping to think.
_____ Strongly disagree
_____ Disagree
_____ Agree
_____ Strongly agree

38. I often do whatever brings me pleasure here and now, even at the cost of some distant goal.
_____ Strongly disagree
_____ Disagree
_____ Agree
_____ Strongly agree

39. I am more concerned with what happens to me in the short run than in the long run.
_____ Strongly disagree
_____ Disagree
_____ Agree
_____ Strongly agree

40. I frequently try to avoid projects that I know will be difficult.
_____ Strongly disagree
_____ Disagree
_____ Agree
_____ Strongly agree

41. The things in life that are easiest to do bring me the most pleasure.
_____ Strongly disagree
_____ Disagree
_____ Agree
_____ Strongly agree

42. I dislike really hard tasks that stretch my abilities to the limit.
_____ Strongly disagree
_____ Disagree
_____ Agree
_____ Strongly agree

43. Sometimes I will take a risk for the fun of it.
_____ Strongly disagree
_____ Disagree
_____ Agree
_____ Strongly agree

44. I sometimes find it exciting to do things for which I might get into trouble.
_____ Strongly disagree
_____ Disagree
_____ Agree
_____ Strongly agree

45. I almost always feel better when I am on the move than when I am sitting and thinking.
_____ Strongly disagree
_____ Disagree
_____ Agree
_____ Strongly agree

46. I like to get out and do things more than I like to read or contemplate ideas.
_____ Strongly disagree
_____ Disagree
_____ Agree
_____ Strongly agree

47. I seem to have more energy and a greater need for activity than most other people my age.
_____ Strongly disagree
_____ Disagree
_____ Agree
_____ Strongly agree

48. I try to look out for myself first, even if it means making things difficult for other people.
_____ Strongly disagree
_____ Disagree
_____ Agree
_____ Strongly agree

49. I'm not very sympathetic to other people when they are having problems.
_____ Strongly disagree
_____ Disagree
_____ Agree
_____ Strongly agree

50. I lose my temper pretty easily.
_____ Strongly disagree
_____ Disagree
_____ Agree
_____ Strongly agree

51. When I'm really angry, other people better stay away from me.
_____ Strongly disagree
_____ Disagree
_____ Agree
_____ Strongly agree

52. When I have a serious disagreement with someone, it's usually hard for me to talk calmly about it
without getting upset.
_____ Strongly disagree
_____ Disagree
_____ Agree
_____ Strongly agree

The next set of items present a pair of contradictory characteristics. For example,

Not at all hungry A.....B.....C.....D.....E Very hungry

You cannot be both very hungry and not at all hungry at the same time. The letters between each characteristic form a scale indicating where you fit on the described pair of characteristics. If you select A, you would be indicating that you have not at all hungry, while an E would indicate that you are very hungry. Please select the letter below that you believe most closely describes you on each pair of characteristics.

53.	Not at all independent	A.....B.....C.....D.....E	Very independent
54.	Not at all emotional	A.....B.....C.....D.....E	Very emotional
55.	Very passive	A.....B.....C.....D.....E	Very active
56.	Not at all able to devote self completely to others	A.....B.....C.....D.....E	Able to devote self completely to others
57.	Very rough	A.....B.....C.....D.....E	Very gentle
58.	Not at all helpful to others	A.....B.....C.....D.....E	Very helpful to others
59.	Not at all competitive	A.....B.....C.....D.....E	Very competitive
60.	Not at all kind	A.....B.....C.....D.....E	Very kind
61.	Not at all aware of feelings of others	A.....B.....C.....D.....E	Very aware of feelings of others
62.	Can make decisions easily	A.....B.....C.....D.....E	Has difficulty making decisions

63.	Gives up very easily	A.....B.....C.....D.....E	Never gives up easily
64.	Not at all self-confident	A.....B.....C.....D.....E	Very self-confident
65.	Feels very inferior	A.....B.....C.....D.....E	Feels very superior
66.	Not at all understanding of others	A.....B.....C.....D.....E	Very understanding of others
67.	Very cold in relations with others	A.....B.....C.....D.....E	Very warm in relations with others
68.	Goes to pieces under pressure	A.....B.....C.....D.....E	Stands up well under pressure

The final set of questions asks you about your feelings and thoughts during the last month. In each case, please indicate with a check how often you felt or thought a certain way.

69. In the last month, how often have you been upset because of something that happened unexpectedly?

_____ Never
_____ Almost Never
_____ Sometimes
_____ Fairly often
_____ Very often

70. In the last month, how often have you felt that you were unable to control the important things in your life?

_____ Never
_____ Almost Never
_____ Sometimes
_____ Fairly often
_____ Very often

71. In the last month, how often have you felt nervous and "stressed"?

_____ Never
_____ Almost Never
_____ Sometimes
_____ Fairly often
_____ Very often

72. In the last month, how often have you felt confident about your ability to handle your personal problems?

_____ Never
_____ Almost Never
_____ Sometimes
_____ Fairly often
_____ Very often

73. In the last month, how often have you felt that things were going your way?
_____ Never
_____ Almost Never
_____ Sometimes
_____ Fairly often
_____ Very often

74. In the last month, how often have you found that you could not cope with all the things that you had to do?
_____ Never
_____ Almost Never
_____ Sometimes
_____ Fairly often
_____ Very often

75. In the last month, how often have you been able to control irritations in your life?
_____ Never
_____ Almost Never
_____ Sometimes
_____ Fairly often
_____ Very often

76. In the last month, how often have you felt that you were on top of things?
_____ Never
_____ Almost Never
_____ Sometimes
_____ Fairly often
_____ Very often

77. In the last month, how often have you been angered because of things that were outside of your control?
_____ Never
_____ Almost Never
_____ Sometimes
_____ Fairly often
_____ Very often

78. In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?
_____ Never
_____ Almost Never
_____ Sometimes
_____ Fairly often
_____ Very often

Appendix C: Regression results for alternative specification of SAT mechanism

	Low Self-Control	Medium Self-Control	High Self-Control
Propensity and Inducement Variables			
Global Morality	-0.261	-0.241*	-0.093
	(0.162)	(0.118)	(0.151)
Situational Morality	-0.329**	-0.360**	-0.382**
	(0.045)	(0.032)	(0.047)
Physical provocation	1.393*	1.583**	1.076**
	(0.683)	(0.419)	(0.219)
Morality X Provocation	-0.133	-0.181*	-0.382
	(0.132)	(0.087)	(0.047)
Theoretical Contingency Variables			
Other same size	-0.157	0.046	-0.169
	(0.228)	(0.155)	(0.258)
Other larger	-0.142	0.130	-0.638*
	(0.227)	(0.159)	(0.268)
Control Variables			
Partner antagonism	0.041	-0.048	0.145
	(0.186)	(0.126)	(0.213)
Other Black	-0.172	-0.105	-0.249
	(0.228)	(0.151)	(0.254)
Other Latino	-0.243	0.130	-0.219
	(0.224)	(0.159)	(0.256)
Well dressed	0.213	0.210	0.445+
	(0.228)	(0.155)	(0.248)
Urban dressed	-0.166	0.174	-0.142
	(0.236)	(0.161)	(0.252)
Audience familiarity	-0.064	-0.120	0.367+
	(0.187)	(0.126)	(0.206)
Audience attention	0.196	0.169	0.468*
	(0.195)	(0.128)	(0.212)
Aggressive cues	-0.244	0.135	-0.107
	(0.228)	(0.155)	(0.258)
Withdrawal cues	-0.403+	-0.403**	-1.042**
	(0.229)	(0.158)	(0.259)
Prior Violence	0.187	0.308+	0.329
	(0.367)	(0.184)	(0.213)
Peer Violence	0.372	0.171	0.405
	(0.222)	(0.170)	(0.250)
Male	0.324	0.473+	0.191
	(0.411)	(0.281)	(0.444)
Hispanic	0.589	0.556*	0.902+
	(0.390)	(0.283)	(0.480)
Other Race or Ethnicity	0.721	-0.806	0.829
	(0.623)	(0.521)	(0.755)
Lower Middle Class	-0.547	-0.492	0.180
	(0.486)	(0.396)	(0.620)
Upper Middle Class	-0.753+	-0.572	-0.355
	(0.450)	(0.381)	(0.579)
Age	0.003	0.025	-0.001
	(0.027)	(0.024)	(0.041)
Constant	5.400**	5.319**	5.417**
	(1.246)	(0.870)	(1.310)
-LL	-1200.466	-2458.296	-1303.634

Regression coefficients with standard errors in parentheses. * $p < 0.05$, ** $p < 0.01$

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