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An examination of impaired driving: The integral role of cognitive and behavioral predictors

By

Andrew Tatch

A Dissertation
Submitted to the Faculty of
Mississippi State University
in Partial Fulfillment of the Requirements
for the Degree of Doctor of Philosophy
in Sociology
in the Department of Sociology

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2019

An examination of impaired driving: The integral role of cognitive and behavioral predictors

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Despite modest reductions over previous decades, improvements in impaired driving prevalence have stalled at problematic levels in recent years. Recent self-report data indicate that 20 percent of driving age individuals acknowledge operating a vehicle within two hours of alcohol consumption within the previous year and there are approximately 121 million episodes of impaired driving annually. Extant research has consistently identified specific subgroups, including men, young adults, and individuals with less education, as being high risk for driving under the influence. Additionally, researchers of impaired driving have discerned certain impaired driving-related attitudes and behaviors as important predictors of impaired driving. Despite a large and growing base of literature, impaired driving research has been notably atheoretical and restricted by samples limited to specific ages or geographic regions. Regardless of the prevalence of impaired driving episodes, the likelihood of apprehension for DUI remains low and little is known about how offenders respond to an impaired driving arrest.

I address these limitations in the current study. Using nationally representative data from the National Survey of Drinking and Driving Attitudes and Behaviors, I consider the role of cognitive and behavioral predictors as mediating the association between key socio-structural

indicators and impaired driving. To consider how individuals respond to DUI arrests, I performed an extensive qualitative content analysis on 627 DUI narratives from reddit (i.e., an online social forum) to consider how the arrest affects individuals apprehended for driving under the influence. Path analyses provide further support for previous studies, with men and young adults more likely to self-report impaired driving compared to females and older reference groups. Further, analyses indicate this increased likelihood of impaired driving by men and young adults was explained in part by differences in monthly alcohol consumption, binge drinking, supportive social networks, and more positive assessments of impaired driving. Analyses of DUI offenders indicate a stigmatizing effect of the DUI arrest, where offenders strategically attempt to deflect culpability for their role in attempts to minimize the range of perceived negative consequences. Overall, theoretical considerations and findings provide additional insight and areas of exploration for researchers and practitioners tasked with DUI mitigation efforts.

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CHAPTER I

AN INTRODUCTION TO IMPAIRED DRIVING AS A SOCIAL PROBLEM

Research extensively documents the damages and dangers associated with driving under the influence (DUI) of alcohol. Motor vehicle crashes are the leading cause of death in the United States among individuals aged 3 to 34 ([Subramanian, 2009](#)). Further, alcohol is linked to roughly 40% of all traffic deaths ([National Center for Statistics and Analysis, 2004](#)). Despite substantial reductions in alcohol-related traffic deaths since the 1970s, current research estimates nearly 17,000 deaths from alcohol-related crashes annually ([National Center for Statistics and Analysis, 2004](#)). These deaths and injuries created economic losses of over \$50 billion in 2000 ([Blincoe et al., 2002](#)). Despite overall reductions in impaired driving since the 1970s, recent evidence indicates the decline has stalled, with alcohol-related driver fatalities remaining constant since the mid-1990s ([Voas, Torres, Romano, & Lacey, 2012](#)).

Researchers and public health officials have amassed a substantial amount of evidence identifying key predictors of impaired driving. These studies are typically conducted on individuals, identifying important sociodemographic indicators ([Flowers et al., 2008](#); [Quinlan et al., 2005](#); [Sloan, Chepke, & Davis, 2013](#)), cognitive measures ([Amlung et al., 2016](#); [Fairlie et al., 2010](#); [Grube & Voas, 1996](#)), or behavioral predictors associated with impaired driving ([Everett, Lowry, Cohen, & Dellinger, 1999](#); [Flowers et al., 2008](#)). Quantitative approaches dominate the impaired driving literature, but several studies have incorporated qualitative approaches ([Basch, DeCicco, & Malfetti, 1989](#); [Nygaard, Waiters, Grube, & Keefe, 2003](#)). Many of the studies

informing interventions or policy reform rely on data that is reliant on underage drinkers or limited geographical areas.

Research on drunk driving is largely applied and atheoretical, which Ross (1984) cites as a partial cause of the low status afforded impaired driving as a social problem amongst sociologists. As such, although studies have consistently noted a greater likelihood of impaired driving amongst certain populations (i.e., young, male, less educated), impaired driving researchers have often ignored the processes that drive these relationships, thus ignoring the *why*. Herbert Blumer (1986) posited a similar argument, although not specifically aimed at impaired driving research. Blumer (1986) asserted that most research is concerned with the identification of the predictors associated with a specific outcome, without consideration of the meanings that drive those associations. As a response, I use this dissertation to address these concerns. Rather than replicate the process of simply exploring and noting associations between demographic subgroups and DUI outcomes, I use two distinct approaches to consider the processual nature of DUIs and the role of meanings and behaviors in explaining impaired driving outcomes.

First, I draw upon the strengths of quantitative approaches to analyze data from the 2008 wave of the National Survey of Drinking and Driving Attitudes and Behaviors. This nationally representative survey includes a range of items pertaining to impaired driving, including attitudes related to drinking and driving, drinking behaviors, and commonly included demographic indicators. To analyze the data, I rely on a path analysis, broadly mapped in Figure 1. As illustrated in the model, I extend previous literature by testing several distinct pathways through which associations between demographic subgroups and impaired driving operate, including social psychological cognitive predictors and drinking behaviors. To illustrate, research has consistently shown that men are more likely to self-report or be arrested for impaired driving

([Amlung et al., 2016](#); [Delcher, Johnson, & Maldonado-Molina, 2013](#); [Flowers et al., 2008](#); [Sloan et al., 2013](#)). Less clear, however, is the extent to which cognitive factors, such as risk perception and perceived social support of impaired driving or drinking behaviors contribute to this association. Using this quantitative approach, I aim to address the following questions: 1) *How do sociodemographic groups differ in their likelihood of impaired driving?* 2) *In what ways do cognitive and behavioral factors mediate the relationship between sociodemographic factors and impaired driving?*

Quantitative analyses such as those described above are beneficial in producing descriptive and inferential associations between indicators. Despite this utility, quantitative methods are limited in their ability to explore deeper processes or meanings. Given that quantitative approaches dominate the literature on impaired driving, the specific role of meanings and their implications in the DUI process have remained largely overlooked. To address this gap, I conducted a qualitative content analysis of text data from DUI narratives on the online social forum reddit¹. Not everyone who acknowledges impaired driving is arrested or formally sanctioned. This is represented on the right-hand side of the conceptual model in Figure 1 by the dotted line from impaired driving to post-arrest outcome. Despite the fact that the likelihood of arrest for impaired driving is rather low (roughly 1 in 200 for drivers with a Blood Alcohol Concentration (BAC) of 0.10 or higher) ([Beitel, Sharp, & Glauz, 2000](#)), there were over 1.1 million individuals arrested for driving under the influence of either alcohol or drugs in 2014 ([FBI, 2014](#)).

¹ The official name as listed online is 'reddit,' as opposed to 'Reddit.' I will therefore use 'reddit' in the entirety of the dissertation.

The use of qualitative content analysis on data from reddit addresses several key questions: 1) *How do impaired drivers respond to DUI arrests?* 2) *In what ways do DUI offenders practice impression management when describing their DUI experience?* 3) *How do DUI offenders perceive their own culpability for their unique DUI arrest?*

To address these questions, I conducted inductive line-by-line coding, guided minimally by sensitizing concepts ([Kathy Charmaz, Denzin, & Lincoln, 2003](#)). Through this inductive process, core concepts and themes emerge directly from the data as opposed to application from an external or pre-established coding frame. Given the exploratory nature of the analyses, the ability to generate a descriptive unsolicited inventory of how DUI offenders share their experiences is an important contribution in and of itself. This allows for an analysis of the processual nature of DUIs at two important time points. First, in speaking retroactively about their arrest, offenders commonly include several descriptive details of the DUI offense, including where they drank prior to driving, their alcohol intake, reasons for drinking, and reasons for police contact. Further, respondents often recall and reference many of the social psychological factors often cited in quantitative literature, including their perception of risk or their perceived ability to safely navigate to their destinations.

Secondly, the data serve as a source of information on the post-DUI arrest process, which I argue is best framed using foundational works from symbolic interactionism. As a public, yet relatively anonymous forum, the narratives represent a safe digital ‘stage,’ where offenders perform for an audience. On this stage, offenders aim to sell the version of the arrest experience that best suits their own idealized version of themselves. Offenders incorporate strategies of impression management to deflect responsibility with implicit and/or explicit attempts to delegitimize or challenge the DUIs. It is within this space that offenders perform a sense of

identity work, with the narratives also reflecting internal dialogue to reformulate meanings ([Blumer, 1986](#); [Mead, 1934](#)).

In addition to clear contributions to impaired driving literature, the use of reddit data contributes to the emerging arena of *digital sociology*. Digital sociology, noted by Gregory, McMillan Cottom, and Daniels ([2017](#)), “provides a lens through which to understand the individual and society after digitization” (p. xviii). Digitization refers to the conversion of information from analog into discrete units of data. This relatively recent shift into the digital era has implications for how we observe and understand the social world, essentially allowing for new ways to *do sociology* ([Marres, 2013](#)). Although social researchers have utilized improved technology to embrace the power of big data, referring to the continuously generated and exhaustive data produced by high traffic websites or technological devices, Recuber ([2017](#)) advocated for the use of “small data produced within digital culture” (p.48). These pockets of small data, available in scattered yet vast areas of the Internet, allow for novel approaches to the examination of meaning making processes ([Recuber, 2017](#)).

The multi-method approach employed in the current study contributes in several ways. First, findings from the content analysis both support and supplement the existing quantitative literature on impaired driving and the sociology of deviance. The inductively generated codes and concepts from the narratives provide further support for the inclusion of common predictor variables in future research, including perceptions of risk, confidence in completing the drive successfully, and alcohol intake, as respondents regularly mentioned these as important factors in their decision to drive after drinking. As a supplementary piece, rich qualitative data also includes references to other key processes of the experience not commonly included in existing literature. With the emergence of potentially important, yet unexplored aspects of the DUI

experience, findings from the qualitative content analysis generate novel and valuable insight that can assist researchers and practitioners in the development of more efficacious mitigation efforts. Further, the use of narratives from reddit represents the first, to my knowledge, systematic analysis of DUI offenders of its kind. As such, it represents the first attempt to use digital sociology to contribute to the impaired driving literature. When included alongside the quantitative component, the analyses and the infusion of sociological theory generate a more nuanced and sociologically grounded explanation of impaired driving, of great value to impaired driving scholars or individuals assigned to mitigation efforts.

Conclusion

Current indicators of impaired driving, measured by economic damages and loss of life, represent a continued problem in need of additional research. I make several valuable contributions with this dissertation. First, I rely on a path model to estimate a complex and sociologically informed model of impaired driving. In this model, I grant special importance to the role of socio-structural indicators on the development of (1) drinking and driving attitudes and (2) drinking behaviors, both of which influence self-reported impaired driving. As an improvement over previous studies, the inclusion of a nationally representative sample allows for greater generalizability than many previous studies, which relied on samples from limited geographic areas or were limited to underage drinkers. I fill another gap by examining the mediational effects of both cognitive and behavioral indicators. Although previous studies have identified associations between numerous indicators and impaired driving, few studies have examined the specific paths through which these associations operate. The atheoretical approach common to impaired driving studies is likely a contributing factor to its low status in sociological inquiries ([H. L. Ross, 1984](#)). To address this gap, I frame my quantitative analyses of impaired

driving with a discussion of both Social Learning Theory ([Akers, 1985, 1990](#)) and the Theory of Planned Behavior ([Montaño & Kasprzyk, 2008](#)). Although several impaired driving studies have incorporated the Theory of Planned Behavior, I argue that structural components of interest to sociologists, including age, gender, and education, have not been granted sufficient attention as contributors to variance in impaired driving attitudes and behaviors.

In later chapters, I analyze the processual role of attitudes and meanings in impaired driving. I incorporate rich text data from DUI narratives from the online social forum reddit, which has several forums dedicated to users describing their own DUI experience. I examine intrapersonal strategies recent DUI offenders use to maintain their identity and manage stigma after a DUI arrest using an iterative coding process developed within a framework heavily reliant on classical symbolic interactionist scholars.

In the next chapter, I summarize and synthesize the current literature on impaired driving. Further, I incorporate and discuss several key theories that serve to frame my empirical analyses.

CHAPTER II

EXISTING RESEARCH ON IMPAIRED DRIVING: WHAT WE DO AND DO NOT KNOW

In the previous chapter, I presented an introduction to impaired driving and an overview of the current project. In addition, I proposed a set of research questions I sought to answer. For the quantitative analyses, using data from the National Survey of Drinking and Driving Attitudes and Behaviors, I seek to answer the following questions: 1) *How do sociodemographic groups differ in their likelihood of impaired driving?* 2) *In what ways do cognitive and behavioral factors mediate the relationship between sociodemographic groups and impaired driving?* For later analyses, using qualitative data from the online social forum reddit, I aim to answer the following: 1) *How do impaired drivers respond to DUI arrests?* 2) *In what ways do DUI offenders practice impression management when describing their DUI experience?* 3) *How do DUI offenders perceive their own culpability for their unique DUI arrest?* In this chapter, I summarize the existing literature on impaired driving, in order to: 1) provide a historical overview of impaired driving, 2) identify the characteristics of individuals associated with impaired driving, and 3) uncover some of the ways that people make sense of their deviance after the fact. First, I cover studies and applicable theories at the individual level. At the individual level, I discuss research linking numerous cognitive and behavioral factors to impaired driving. Then, I present a brief discussion of the limited literature considering the role of these predictors as mediators of the relationship between sociodemographic predictors and impaired driving, incorporating individual-level theories on deviance and health behaviors to further inform how

these predictors are expected to influence impaired driving. I also include literature on why alcohol consumption varies across gender, race, education, and income. Lastly, I present literature applicable to framing meaning making and impression management of DUI offenders (i.e., individuals arrested after driving impaired).

Figure 2.1 depicts the path model for the current study. In the path model, I include cognitive and behavioral predictors as mediating variables between sociodemographic indicators and impaired driving outcomes. As modeled, I explore several relationships. First, I estimate the direct effects of the included structural sociodemographic indicators (i.e., gender, race, age, education, and income) on the likelihood of self-reported impaired driving. Second, I estimate the mediating role of both cognitive and behavioral predictors to test the indirect effects of sociodemographic indicators on impaired driving. Lastly, I estimate the total effect of each structural indicator on impaired driving, including the effects of both direct and summed indirect effects. The model suggests that sociodemographic predictors are associated with cognitive and behavioral predictors that, in turn, are associated with self-reported impaired driving. On the right-hand side of the model, there is a dotted path from impaired driving to post-arrest outcome. This path represents individuals who drove while intoxicated *and* were arrested for doing so. Discussed in detail later in this chapter, I incorporate a content analysis using data from reddit to explore post-arrest outcomes.

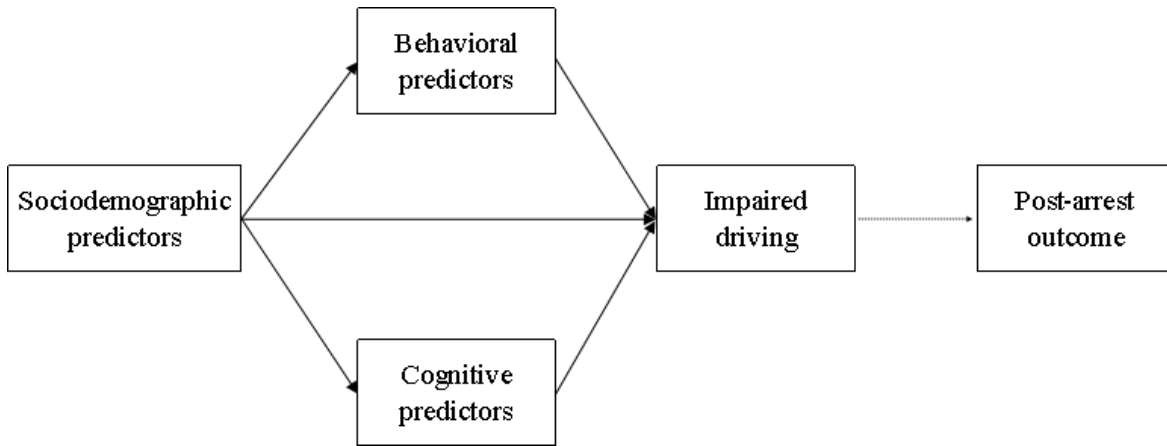


Figure 2.1 Path Model Predicting Impaired Driving

Note: Data come from the National Survey of Drinking and Driving Attitudes and Behaviors (2008 wave).

To better frame analyses of impaired driving, I now provide historical information on the evolution of impaired driving as a social problem.

A Historical Overview of Impaired Driving

Impaired driving occurs at the intersection of transportation and recreation ([H. L. Ross, 1992](#)). Given Americans' reliance on the private automobile and the established role of alcohol in leisurely activities, it is unsurprising that impaired driving has long concerned employers and policy-makers. As early as 1843, the New York Central Railroad implemented policies to prohibit drinking by on-duty employees ([Borkenstein, 1985](#)). The early automobile mogul Henry Ford even expressed concerns about alcohol consumption when motor vehicles were introduced ([Lender & Martin, 1982](#)).

Impaired driving was cemented as a legitimate social problem with the passing of the Highway Safety Act of 1966 ([Jacobs, 1989](#)). The Highway Safety Act was important for two key reasons. First, it led to the establishment of the National Highway Safety Bureau, which would

later become the National Highway Transportation Safety Administration (NHTSA). NHTSA is responsible for the mitigation of damages and losses, both economical and human lives, on US roads (National Highway Traffic Safety Administration, 2019). Secondly, it authorized the 1968 report *Alcohol and Highway Safety*. Among the key findings in the report was that “the use of alcohol by drivers and pedestrians leads to some 25,000 deaths and a total of at least 800,000 crashes in the United States each year” ([Jacobs, 1989, p. xiv](#)). Further, the report suggested that losses and damage associated with impaired driving would continue to be an issue until appropriate countermeasures were implemented ([Jacobs, 1989](#)).

Initial attempts to identify countermeasures were developed by NHTSA’s Alcohol Safety Action Project in 1970, the first federal initiative aimed at the amelioration of losses linked to impaired driving. A total of 35 coordinated and multi-dimensional Alcohol Safety Action Projects were implemented across the United States. The Alcohol Safety Action Project included increased efforts at enforcement, rehabilitation (primarily DUI schools), and public information, but ultimately proved unsuccessful and was scrapped in 1977 after NHTSA was unable to confirm significant reductions in impaired driving ([Jacobs, 1989](#); [Voas, 1981](#)). Despite this initial failure, NHTSA’s Standard 8, “Alcohol in Relation to Highway Safety” disseminated extended efforts. This standard required that states met numerous anti-drunk driving strategies in order to qualify for certain federal highway funds ([Jacobs, 1989](#)).

Contemporary Efforts

The heyday of efforts to combat impaired driving was arguably the result of grassroots campaigns in the late 1970s and early 1980s. Two key organizations were founded, both spearheaded by women with close ties to adolescent victims killed by drunk drivers. In 1979, Doris Aiken founded Remove Intoxicated Drivers (RID) in (New York), and in 1980 Candy

Lightner founded Mothers Against Drunk Driving (MADD) in California ([Jacobs, 1989](#)). These groups formed at a time when alcohol abuse was finally garnering attention as a major social and public health issue ([Jacobs, 1989](#)). In addition, the existing structures remaining from early federal efforts were available to assist in further amelioration of damages incurred from impaired driving. At this time, the news media came to play an important role, regularly granting page space and airwaves to stories from anti-drunk driving activists. The growth of MADD in 1983 highlighted the power of the media in the grassroots movement. After the airing of “Mothers Against Drunk Driving: The Candy Lightner Story,” the number of MADD chapters nearly doubled ([Weed, 1987](#)). RID continued to grow as well during this time, as did Students Against Drunk Driving, with local chapters sprouting across the country to assist with education, victim services, and court monitoring ([Jacobs, 1989](#)).

This proliferation of activists eventually gave drunk driving an elevated position among social problems. Feeling the pressure, a broad range of organizations, including insurance companies, automakers, and brewing companies, began to contribute to public education campaigns in opposition of drunk driving. From this momentum came additional action at the federal level. Congress announced the creation of a Drunk and Drugged Driving Awareness week each December, made federal highway funds contingent on states criminalizing the operation of a motor vehicle when one’s Blood Alcohol Concentration (BAC) is greater than .10, and raised the minimum drinking age to 21 ([Jacobs, 1989](#)). President Ronald Reagan developed a Presidential Commission on Drunk Driving, which released a report in 1983 with more than fifty recommendations, including greater citizen action, joint citizen and governmental task forces at the local levels, and the development of a permanent national body that would maintain continued efforts to reduce impaired driving ([Jacobs, 1989](#); [Volpe, 1983](#)).

Given the new laws and public attention, drunk-driving arrests rose. By the mid-1980s, there were nearly 2 million drunk driving arrests per year ([Jacobs, 1989](#)). Despite increases in drunk driving arrests, self-reported impaired driving measures from the Behavioral Risk Factor Surveillance System (BRFSS) do not suggest steep declines in impaired driving from the 1990s to the present ([Quinlan et al., 2005](#)). In 1993, 2.5% of respondents acknowledged alcohol impaired driving in the month prior to the interview. This figure declined to 2.2% and 2.1% in 1995 and 1997, respectively, before increasing to 2.4% in 1999. The figure declined to 2.2% in 2002. The 2002 BRFSS data is consistent with the 2001 wave of the National Survey of Drinking and Driving Attitudes and Behaviors. This survey, sponsored by the National Highway Transportation Safety, suggests that the percentage of individuals driving within two hours of drinking any amount of alcohol decreased from the early- to mid-1990s (24% in 1991 and 1993, 20% in 1995) before slightly increasing to 23% in 2001 ([Royal, 2003](#)). The most recent wave of the National Survey of Drinking and Driving Attitudes and Behaviors reveals relative consistency in these numbers, with 20% of driving age individuals acknowledging the operation of a motor vehicle within 2 hours of alcohol consumption within the past year ([National Highway Traffic Safety Administration, 2011](#)).

Individual Level Studies

Theoretical Framework

To frame impaired driving, I present formal theories from deviance studies (Social Learning Theory) and from health education (Theory of Planned Behavior). In addition, I present theories on the association of alcohol consumption by gender, race, educational attainment, age, and income to inform later hypotheses and guide analyses. In presenting Social Learning Theory and Theory of Planned Behavior, I argue that impaired driving is both an act of deviance and a

health behavior. As an act of deviance, impaired driving is subject to both formal and informal sanctions. However, the necessary precedent to impaired driving, alcohol consumption, represents a health behavior. After presenting and noting the contributions of each theory and other notable literature, I discuss the overlapping constructs and their value in informing the current study. In essence, I argue that both are rationally motivated value expectancy theories with several important distinctions. The inclusion of literature on alcohol consumption by gender, race, educational attainment, age, and income illustrates the utility of granting these structural markers special importance in analyses. Rather than including them as controls, the theoretical contributions regarding the relationship between structural markers and alcohol consumption assists in informing why specific groups may be at high risk of impaired driving.

Social Learning Theory

Social learning theory is a common framework for understanding deviant behavior ([Akers, 1985](#)). In summary, social learning theory contends that individual agency, whether conforming or deviant, is linked to a learned and socially conditioned system of rewards and sanctions. Social learning theory takes into account a far-reaching social system that serves to facilitate or constrain behaviors. These include both costs and rewards not only in the present context, but assumes an individual's anticipated costs and rewards are influenced by previous reinforcement or punishment. Discussed in detail by Akers ([1990](#)), social learning theory considers both formal and informal rewards and sanctions, extending beyond other criminological theories including deterrence theory (based on perceived legal punishment) and rational choice theory (focused on the maximization of payoff through calculations of anticipated costs and benefits). As such, Akers ([1990](#)) argues that social learning theory is a more complete

theoretical framework for explaining deviant behavior, ultimately subsuming the core assumptions of other criminological theories such as deterrence and rational choice theories.

Social learning theory relies on the utility premise, based in economic theory, and the deterrence doctrine, which has long been central to classical criminology ([Akers, 1990](#)). Social learning theory necessitates an expansive set of perceived sanctions and rewards, as the legal sanctions and penalties associated with deterrence theories do not encompass a range of other domains for reinforcement. In other words, the threat of legal sanctions represents a limited source of perceived reinforcement and fails to consider the larger contexts in which individuals exercise agency. As such, applications of social learning theory have considered intrapersonal and social sanctions as well as devotion to the established normative order. In addition to consideration of negative sanctions, differential reinforcement should consider the perceived rewards of actions, including reactions from an individual's social network. By itself, fear of punishment shows a weak association to deviant behavior ([Akers, 1990](#)). However, the inclusion of actual or perceived reactions to punishment, often referred to an "informal deterrence," leads to a more complete assessment of the larger system of costs and rewards.

Similar to the central tenets of early symbolic interactionism, social learning theory asserts that behavior is learned and modified over time and through interactions with others. Akers ([1990](#)) contends that learning mechanisms including *differential reinforcement* and *imitation* guide this process. Differential reinforcement refers to instrumental conditioning, where experienced *and* expected rewards and punishment inform behavior. Imitation refers to the process in which individuals observe and model the behavior of others. Further, SLT contends that stimuli trigger specific behavior through stimulus discrimination/generalization. These stimuli may be overt or covert, and verbal or cognitive. We form these definitions and

stimuli as part of the larger and continual process of differential reinforcement. Differential reinforcement rewards or punishes specific behaviors, providing support for or requiring modification of the beliefs or attitudes that drove the behavior. In other words, behavior, whether conforming or deviant, develops in response to cues or stimuli we have developed over cumulative experiences with rewards and sanctions.

The social learning component of social learning theory refers to *differential association*. The learning mechanisms discussed above operate within interactions with others. Differential association with others, including the frequency, intensity, and duration of interactions, influences the reinforcement individuals receive for conforming or deviant behavior. It is through differential association with others, including primary groups, that we receive reinforcement, which serve to validate or modify definitions and stimuli which cue behavior. Particularly relevant to impaired driving, Akers (1990) contends that reinforcement is primarily social, yet specifically cites the effects of substances as capable of providing nonsocial reinforcement and discriminative cues as well.

After providing an overview of social learning theory, I turn again to Akers (1990, p. 52) to reiterate the basic premise:

“The probability that person’s will engage in criminal and deviant behavior is increased and the probability of their conforming to the norm is decreased when they differentially associate with others who commit criminal behavior and espouse definitions favorable to it, are relatively more exposed in-person or symbolically to salient criminal/deviant models, define it as desirable or justified in a situation discriminative for the behavior, and have received in the past and anticipate in the current or future situation relatively greater reward than punishment for the behavior.”

In summary, Social Learning Theory contends that behaviors, whether deviant or conforming, are learned. Through differential association with others, individuals develop unique

cognitive schemas with definitions and assumptions about behaviors through processes of differential reinforcement, which rewards or sanctions behaviors (thus supporting or necessitating the modification of cognitive schema). We rely on environmental or contextual cues in our immediate environments to recall our accumulated definitions and assumptions, which invoke our chosen action.

Outside of informal deterrence, social learning theory also considers normative control by means of the legal and correctional system, addressing a structural element of deterrence. In discussing how formal and legal sanctions contribute to the deterrence of deviant behavior, Akers (1990) contends that through socialization and the established system of differential reinforcement, most individuals routinely exhibit behavior which conforms to the established norms. Yet, we are vulnerable and aware of the potential of punishment from deviance from the formal legal system. Yet, the influence of the legal system is weak in comparison to the individual's more proximate social networks, given the uncertainty of the consequences.

Theory of Planned Behavior

The Theory of Planned Behavior (TPB) represents an extension of the Theory of Reasoned Action (TRA) (Montaño & Kasprzyk, 2008), distinct from TRA by its addition of perceived behavioral control into explanatory models. Both the Theory of Planned Behavior and Theory of Reasoned Action are noted for their versatility and have been used to explain numerous health behaviors including impaired driving. With social psychological roots, TPB contends that behavioral intentions are the most important determinants of behavior. Influencing these intentions are attitudes, subjective norms, and perceived control. The Theory of Planned Behavior assumes that humans are rational actors, with an individual's behavior arising as a

result of a conscious decision making process ([Chan, Wu, & Hung, 2010](#)). Montañó and Kasprzyk ([2008](#)) further detail the defining constructs of TPB. *Attitudes* refer to the beliefs an individual holds about the outcomes or attributes of performing a certain behavior. The attitudes are more positive if the anticipated outcomes are positively valued and similarly negative if anticipated outcomes from the behavior are valued more negatively. *Subjective norms* refer to an individual's normative beliefs, which pertain more to whether significant peer groups or others approve or disapprove of the behavior in question. An individual's desire to conform to these perceived expectations weights subjective norms. Individuals who feel as though important others would approve or support of a behavior and who are motivated to comply with those expectations would have more positive subjective norms. Lastly, *perceived behavioral control* refers to perceived facilitators or constraints to accomplishing a behavior, and the individual's assessment of the power of these factors in accomplishing the behavior successfully. The Theory of Planned Behavior is also clear in defining the causal relationships amongst these indicators. The TPB asserts that attitudes, subjective norms, and perceived control predict *intentions* to perform behaviors, which are then predictive of behaviors. Also shown in Figure 2.2, TPB proposes that the effects of external variables, including demographic indicators, operate through mediating variables, as opposed to directly affecting intentions or behaviors.

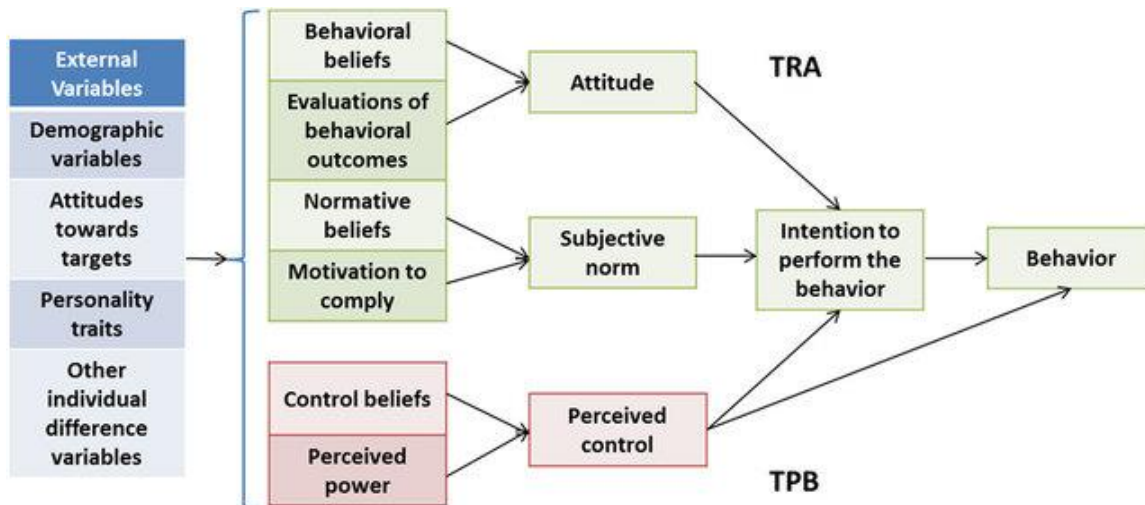


Figure 2.2 Theory of Reasoned Action/Theory of Planned Behavior Diagram

*Figure comes from DeNicola, Erica & S Aburizaize, Omar & Siddique, Azhar & Khwaja, Haider & Carpenter, David. (2016). Road Traffic Injury as a Major Public Health Issue in the Kingdom of Saudi Arabia: A Review. *Frontiers in Public Health*. 4. 10.3389/fpubh.2016.00215.

Applying the Theory of Planned Behavior to impaired driving, the attitudes component simply refers to a generalized evaluation of the act of drinking and driving; specifically, do they view it positively or negatively? Do they see it as safe or unsafe? Is it convenient or is it more of a burden (Chan et al., 2010; Marcil, Bergeron, & Audet, 2001). Subjective norms refer to the approval or disapproval from other individuals in regards to specific behaviors, such as drinking under the influence of alcohol (Chan et al., 2010). Perceived behavioral control refers to an individual's perception of how easy or difficult the behavior in question would be to accomplish successfully (Chan et al., 2010). In regards to impaired driving, subjective norms pertain to how the individual perceives significant others feel towards drinking and driving in general; seen through the lens of the Theory of Planned Behavior, if an individual perceives their significant others and meaningful peer groups would approve of impaired driving, the intentions to drive while intoxicated increase. The notion of perceived behavioral control would refer to how

capable an individual feels to drive after consuming alcohol, a subjective measure. Applied to impaired driving, it would follow that an individual that feels capable of successfully and safely operating a vehicle after drinking would be more likely to do so when compared to someone who lacked confidence in their ability to safely operate a vehicle. Chan et al (2010) extend the Theory of Planned Behavior with a fourth motivational predictor, a measure of subjective risk assessment. Termed invulnerability to danger by Chan (2010), this subjective risk assessment refers to the likelihood that an individual perceives risk as an outcome of impaired driving; greater perceived risk, such as the risk of an accident or the risk of punitive action by law enforcement, is associated with fewer intentions of impaired driving.

The core assumptions of both SLT and TPB are consistent with research questions in this study. The first question I ask is how sociodemographic groups differ in their likelihood of impaired driving, a necessary precedent for the second question. Put another way, who is most at risk for impaired driving? Secondly, I ask in what ways cognitive and behavioral factors mediate the relationship between sociodemographic groups and impaired driving. The first question is geared at simply identifying the groups most at risk and the Theory of Planned Behavior assumes that external indicators, including demographic groups, vary on health related behaviors such as alcohol consumption or impaired driving. SLT and TPB are especially fitting for the second question. Both SLT and TPB assume agency is in response to attitudes and beliefs that we hold. In the case of TPB, these attitudes are the impetus for intentions, which immediately precede behaviors. The Theory of Planned Behavior contends that the effects of sociodemographic membership function through attitudes. That is, variance in health related behavior across sociodemographic groups is a function of variance in attitudes that stems from sociodemographic membership. However, given the broad utility of TPB to a range of health related behaviors, it

fails in clearly elucidating the specific mechanisms and processes linking sociodemographic groups to attitudes. In contrast, Social Learning Theory more clearly illustrates the social nature to individual level agency. According to Social Learning Theory, the cues and definitions that people form are in direct response to social interaction with others, through differential association. These broad theories, borrowed from deviance and health education research, successfully illustrate specific pathways through which impaired driving may operate, helping to address the second question. However, a more thorough discussion of why specific sociodemographic groups are at greater risk for impaired driving will further illustrate the necessity of examining the mediational role of cognitive and behavioral factors.

Why are Specific Sociodemographic Groups at Higher Risk?

Gender

Ridgeway and Correll (2004) define gender as “an institutionalized system of social practices for constituting people as two significantly different categories, men and women, and organizing social relations of inequality on the basis of that difference” (p.510). Following from this definition, gender operates across multiple levels; cultural beliefs and distribution of resources at the macro level, organizational practices at the interactional or meso level, and more micro identity work at the individual level (Ridgeway & Correll, 2004). Gender scholars argue that individuals use common cultural beliefs of being male or female to organize and structure social experiences (Ridgeway & Correll, 2004; West & Zimmerman, 1987). Culture gives cues for what is expected for males and females and individuals use these common cultural beliefs as they enter into social relational contexts. West and Zimmerman (1987) argue that gender is something that is ‘done’, something that individuals accomplish through routinized actions

which occur within the framework of socially and culturally constructed understandings of male and female; to do gender is to recognize and act in congruence with masculinity and femininity.

Consistent with symbolic interactionism scholars, gender scholars have argued that gender is both developed through shared interactions with others but also serves to shape and structure further interactions ([Ridgeway & Correll, 2004](#); [West & Zimmerman, 1987](#)). It is through shared interactions with others that we learn common cultural beliefs pertaining to gender, and our gendered performances serve to reify gendered systems. Sex role socialization has been drawn upon to explain the process of becoming male or female, linked to masculinity or femininity. In early childhood, children learn the necessity of developing gender specific traits and to display behaviors consistent with their gender identity ([Cahill, 1986](#)). Whereas sex is biologically ascribed, the cultural and social meanings that we attached to gender are achieved through processes of socialization.

Social Role Theory provides a framework for understanding differences in the behaviors and perceptions of men and women. Social Role Theory contends that gendered differences in behavior originate from variance in the social role distribution of men and women ([Eagly, Wood, & Diekmann, 2000](#)). Earlier theorists including Bales and Parsons ([2014](#)) and Strodbeck and Mann ([1956](#)) observed a gendered division of labor and responsibility in which men were more likely to perform behaviors related to task accomplishment (instrumental oriented) while women specialized more on processes related to expression, group maintenance, and social concerns. To properly perform these gendered roles, men and women acquire skills and resources and modify their behaviors in accordance with these expectations ([Eagly et al., 2000](#)). The male gender role, characterized by assertive and independent behavior, has been described as agentic; the female

gender role, linked to a more domestic role, is typified by interpersonal skills, nurturing, and can be termed communal ([Bakan, 1966](#); [Eagly & Kite, 1987](#)).

Expectation states theory is another useful theory to consider the stratified relationship between gender and impaired driving ([J. Berger, Conner, & Fisek, 1982](#)). Broadly, expectation states theory explains the formation of interactional status structures and how they develop in homogenous groups and also groups that differ in socially significant ways. The latter has been the most common used application of the theory, exploring how characteristics such as race, class, and gender influence access to participation, influence, or evaluation which lead to stratified outcomes. The theory suggests that behavioral inequalities are influenced by performance expectations, which are shaped in part by socially significant characteristics. These characteristics matter due to widely held beliefs about the competency of one group versus another to accomplish the task. In this way, as noted by Correll and Ridgeway ([2003](#)), “cultural beliefs about social categories at the macro level impact behavior and evaluation at the individual level, which acts to reproduce status structures that are consistent with pre-existing macro-level beliefs” (p. 48).

Expectation states theory is also consistent with impaired driving in regards to widely held cultural beliefs about gendered driving competency. Studies have generally indicated that men hold different cultural beliefs about driving in general and also their own competency. Men have been found to take more risks while driving and are more likely to take risks for fun while driving than are women ([Jessor, 1987](#)). Further, a study by Dejoy ([1992](#)) suggests men have greater confidence in their own driving skills than do women. Additionally, men perceive risky driving behaviors as less serious and as less likely to result in traffic accidents than are women.

These findings are consistent with other studies that found men perceived themselves especially competent drivers ([Finn & Bragg, 1986](#); [Matthews & Moran, 1986](#)).

Researchers have often argued that alcohol use is one mechanism for *doing* gender ([Connell & Messerschmidt, 2005](#)). By this, researchers have noted different types of alcohol consumed, meanings associated with drunkenness, and abstention ([Peralta & Cruz, 2005](#)). Other scholars have noted the role that alcohol plays in the maintenance of the construct of gender and gender roles ([George, Gournic, & McAfee, 1988](#); [Scully, 2013](#); [Stappenbeck & Fromme, 2010](#)). Specifically, scholars have examined the gendered nature of how individuals use alcohol to excuse gender transgressions ([Peralta, 2008](#)). For example, Peralta ([2008](#)) illustrates this with reference to a man who cries in public or a woman displaying indicators of sexual promiscuity. The assignment of “blame” on alcohol serves to reinforce established gender roles.

Similarly, women feel as though they are subject to more social sanctions for drinking than are men. In one national study, half of women responded other people would strongly disapprove of a woman getting drunk at a party, while only 30% would report this same objection to male drunkenness ([S. C. Wilsnack, 1996](#)). Other studies indicate some of the specific negative traits associated with female drinkers; using vignettes to dissect a dating context, female drinkers were perceived as more sexually available and aggressive than women drinking soda. These patterns did not hold for men ([Corcoran & Thomas, 1991](#)).

A review article from Nolen-Hoeksema and Hilt ([2006](#)) discusses biological and psychosocial factors which may contribute to gender differences in alcohol use and problems. First, as previously addressed, the literature has consistently shown men consume more alcohol and have more alcohol related problems than do women ([R. W. Wilsnack, Vogeltanz, Wilsnack, & Harris, 2000](#)). Given the scope of my study, I discuss biological risk factors minimally.

However, for a more extensive review, see Nolen-Hoeksema and Hilt (2006). Summing up biological risk factors, Nolen-Hoeksema and Hilt (2006) point to evidence indicating men carry a greater genetic disposition towards alcohol use and alcohol use disorders. In addition, researchers have noted gender differences in the physiological effects of alcohol. In assessing physiological effects by gender, researchers have documented that equivalent doses of alcohol for men and women result in higher blood alcohol levels for women than for men. This may result from gender differences in body mass, differences in body-water content, or differences in the enzyme gastric-alcohol dehydrogenase. Researchers have also examined impulsivity and its association to alcohol consumption and alcohol related problems (Caspi, Moffitt, Newman, & Silva, 1996). Although gendered differences in the relationship between impulsivity and alcohol problems are inconsistent, men tend to be more impulsive than women (Petry, Kirby, & Kranzler, 2002).

Widely held cultural beliefs provide cues for how men and women should act and these beliefs inform how we perform our gendered roles. Further, the expectations we hold for each gender often lead to a sort of self-fulfilling prophecy for behaviors. From the broad literature on the structuring effects of gender and normative expectations of driving and alcohol use, a clearer theoretical formulation of disproportionate male representation amongst DUI offenders is possible. Men may be more at risk because of the congruity between alcohol consumption, even at hazardous levels, and masculinity. Alcohol use even serves as a means of performing the male gender role. Additionally, the experience of impaired driving can be viewed as a gendered social relational context, where gendered roles and expectations would be expected to matter. More likely intoxicated due to gendered norms regarding alcohol consumption and drunkenness, the more task oriented instrumental male gender role may serve as push factor in men being more willing to drive while impaired.

A gendered expectation states theory explanation is also important. The greater tendency of men to positively evaluate their driving skills may lead them to overestimate their ability to drive after drinking. In the same regard, these factors may be expected to serve as protective factors for female impaired driving. Anticipating negative informal sanctioning given the stigma associated with female drunkenness, women may be less likely to drink to the point of intoxication. The female gender role does not value task accomplishment and being in control as highly as men, which may dissuade them from driving when intoxicated. Lastly, women hold less positive evaluations of their own driving ability, which may be further questioned if drinking.

Race

Built upon limitations of previous racial frameworks, Bonilla-Silva (1997) presents the concept of a racialized social system to explain the structuring role of race in stratified societies. Racialized social systems refer to “societies in which economic, political, social, and ideological levels are partially structured by the placement of actors in racial categories or races” (Bonilla-Silva, 1997, p. 469). In racialized social systems, an ordered racial hierarchy dictates social relations between races. The groups at the top of the hierarchy benefit from this privilege across numerous domains, including the labor market, political power, social privilege (e.g. seen as smarter or more attractive), and has the ability to generate distance between themselves from other races.

In American society, Whites have maintained the dominant position in the racialized social system, leading to lower overall life chances for marginalized non-White races. This system is developed and maintained by racialized ideologies (Bonilla-Silva, 1997; Omi & Winant, 2014), where racialized meanings are attached to racial groups. This is a socially

constructed process and varies across time and contexts. Over time, the racialized meanings extend beyond actors, become institutionalized, and appear as extensions of natural differences as opposed to social constructions.

The detrimental influence of the racialized social system on marginalized non-White races has been documented in education ([Johnson, 2014](#); [Lewis, 2003](#)), the labor market ([Kirschenman & Neckerman, 1991](#); [Pager, 2003](#)), wealth distribution ([Oliver & Shapiro, 2013](#)), and housing markets ([Massey & Denton, 1993](#)). With special pertinence to these studies, researchers have also noted disproportionate representation of non-Whites in the criminal justice system ([Alexander, 2012](#); [Wakefield & Uggen, 2010](#)). There is additional evidence to suggest Black drivers are disproportionately stopped by police compared to their representation in the larger population ([Walker, 2001](#)). Further, once stopped, Blacks and Hispanics were ticketed, arrested, handcuffed, searched, or subject to threat or force more frequently than Whites ([Bureau of Justice Statistics, 2002](#)). This may partially explain survey results indicating Blacks hold less favorable views of law enforcement and are more likely to have experienced or witnessed police misconduct ([Decker, 1981](#); [Flanagan & Vaughn, 1996](#)). There is also evidence that distrust or fear of police is associated with reduced alcohol consumption among Black college students for fear of their own safety ([Peralta, 2010](#)).

Framed broadly as stemming from additional stressors that minorities encounter, Caetano, Clark, and Tam ([1998](#)) cite Durkheim's theory of anomie and Leighton's theory of mental illness and social disintegration to further explain why drinking patterns may differ by race and ethnicity. Ultimately, both theories aim to account for deviant behavioral patterns (drinking) as a response to social adjustment stressors. Durkheim's theory of anomie refers to a lack of clear behavioral guidelines resulting from rapid cultural change, which may result in

individuals turning to more self-destructive behaviors. Leighton makes a similar argument, namely that social disintegration and lack of social cohesion invoke psychological distress. From these disadvantageous conditions comes increased stress that leads to deviant behaviors or mental disorders.

Considering specific racial and ethnic minorities, studies have examined the machismo characteristic of Hispanic males and its association to heavy alcohol consumption. In essence, this notion of machismo implies that the ability to consume large amounts of alcohol is a desirable masculine trait. When explored across racial groups, including Whites, Blacks, and Mexican-Americans, machismo was associated with alcohol use amongst men, but could not solely explain heavy consumption for Mexican-Americans ([Neff, Prihoda, & Hoppe, 1991](#)).

In discussing drinking among Blacks, Herd ([1987](#)) challenges the legitimacy and validity of social disorganization theory to explain black drinking, asserting more recent data indicate Black youth drink less and experience fewer alcohol problems than White youth and disparities among White and Black adults are declining. Whereas early studies on black drinking hinted that Black culture was more permissive of drinking than White culture, newer data suggest alcohol plays a less prominent role in home and family life for Blacks than for Whites and that Blacks drink alcohol less in social situations than do Whites.

In examining differences in drinking among Asian Americans and Native Americans, studies have highlighted the prevalence of intra-ethnic differences, with prevalence of heavy drinking and alcohol problems varying greatly across countries or tribes. In conclusion, Caetano et al ([1998](#)) make a valuable assertion about the association between race and ethnicity and drinking. Rather than relying on single factor exclamations for drinking problems by race, it is

important to consider “a complex interplay of psychological, historical, cultural, and social factors” (p.237).

With this literature on the stratifying role of race, theorizing on how race may influence impaired driving produces conflicting perspectives. On one hand, and given marginalization experienced by non-Whites in American society, it seems plausible that non-Whites may turn to hazardous drinking as a form of self-medication to relieve more frequent and cumulative stressors across a range of institutions. Yet, other studies indicate there may be protective factors for impaired driving associated with marginalized racial status. With documented disproportionate representation in the criminal justice system, use of police force directed at people of color, and even concerns with being stopped for simply ‘driving while Black’, non-Whites may be more apt to avoid intoxication altogether and may perceive greater risk of police contact associated with driving while impaired.

Age

Despite numerous competing theories on the relationship between crime and age, the age effect on crime is invariant; that is, across demographic groups, crime rates approach maximum levels during the adolescent or late teen years before declining in later ages ([Hirschi & Gottfredson, 1983](#)). Greenberg’s ([1977](#)) “Delinquency and the Age Structure of Society” details one of the most prominent age-related theories of crime. Greenberg’s ([1977](#)) theory of delinquency has two major components. First, increased motivation for crime amongst youth results from their precarious structural location in American society. Second, the willingness to act on that motivation varies across age groups in part because the cost of apprehension also varies across age groups. According to Greenberg ([1977](#)), adolescence is marked by a heightened sensitivity to the expectations of peers and fear of social exclusion. This is in part due to their

exclusion from adult labor markets. This heightened sensitivity to the expectations of peers declines as adolescents age into adulthood and use institutional membership to develop and sustain self-esteem.

The second component, costs, can be either internal or external. Internal costs can include feelings of guilt or shame, while external costs can refer to disapproval from peers, termination of employment or future job opportunities, or jail. Greenberg (1977) argues that external costs are more influential for variance in crime by age. Youth are given greater leniency as delinquency is often written off as a result of immaturity or impulsivity, which are characteristic of adolescence or late teenage years. The protective factors associated with youth are minimized as youth age into adulthood, resulting in greater perceived external costs to adults. Simultaneously, with increasing age comes greater involvement in important institutions (e.g., jobs or marriage) that further increase the external costs of delinquency.

Bloch and Neiderhoff (1958) proposed an alternative theory for age and delinquency. Similar to Greenberg (1977), they argued that there are unique issues that stem from the adolescent's age. Specifically, although adolescents are encouraged to strive towards maturity and adulthood, they are not privy to the real rights conferred to legal adults. As such, the use of specific deviant activities serves as a substitute for perceived adult privileges. The deviant behavior, serving as a substitute for adult privilege, declines once adulthood is reached and the genuine right becomes available.

Extensive literature on alcohol consumption has focused on the role of alcohol expectancies. In this line of research, people's beliefs about how alcohol will influence their behaviors, moods, and emotions affect how or if they will use alcohol. Alcohol expectancies have been consistently correlated with both adolescent and adult drinking, with premise that it is

these expectancies that both initiate and maintain specific patterns of drinking. In short, the decision to drink or not is based on what outcome you expect the alcohol to produce (i.e. mood enhancement or tension reduction) and the decision to cease or maintain drinking habits is formed in response to how well alcohol meets these expectations. Leigh and Stacy (2004) examined alcohol expectancies across different age groups, with the assumption that alcohol expectancies are modified with accumulated drinking experience. In their analysis of alcoholic expectancies and drinking across age categories, Leigh and Stacy (2004) found positive expectancies to be especially predictive of alcohol consumption for individuals 35 and younger and over age 60. For drinkers between ages 36 and 60, drinking was equally predicted by positive and negative expectancies.

Literature on criminal behavior and deviance suggest that late adolescents are especially at risk for impaired driving. Applying theory and literature on deviance to impaired driving, it is likely that the association between adolescents, young adults, and impaired driving stem from several key factors associated with unique structural factors characteristic of this age status. High alcohol consumption amongst young adults likely stem from both susceptibility to peer expectations and fear of social exclusion, yet may also be a deviant substitute for anticipated adult rights. This is consistent with findings from several qualitative studies, which have indicated a reward in and of itself for both getting drunk (Vander Ven, 2011) and driving impaired (Basch et al., 1989) amongst adolescents and young adults. Further, younger individuals may be more likely to drive impaired because their unique structural location bears a cost and benefit analysis conducive to impaired driving; whereas youth may be more likely to be given leniency or reduced sentencing, greater institutional involvement as one ages places additional cost on a DUI arrest as older individuals potentially have more to lose.

Education

Education is consistently associated with more desirable health outcomes (Mirowsky & Ross, 2003). Mirowsky and Ross (2003) argue that education is positively associated with learned effectiveness. Learned effectiveness refers to a direct association between education, increased human capital, and health outcomes, where education grants people a greater sense of control over their lives and promotes a healthy lifestyle to the extent people desire. Education, according to Mirowsky and Ross (2003), affords individuals a greater ability to acquire, evaluate, synthesize, and use health related information. Education is a unique measure of socioeconomic status because it increases individuals' effective agency through an increase in human capital. This increase in human capital accompanies a greater ability to develop habits, skills, resources, and abilities conducive to a healthier lifestyle.

Education has been consistently linked to a variety of healthy behaviors. Well-educated people are less likely to smoke, have greater physical activity, and well-educated women are less likely to be overweight (Ford et al., 1991; C. E. Ross & Mirowsky, 1983; Winkleby, Jatulis, Frank, & Fortmann, 1992). More applicable to the current analyses, education is also associated with drinking. Highly educated people are more likely to drink in moderation compared to those with the less educated. Individuals with lower educational attainment are more likely to be both alcohol abstainers and alcohol abusers than are the highly educated (Darrow, Russell, Cooper, Mudar, & Frone, 1992; Midanik, Klatsky, & Armstrong, 1990). Moderate drinking, as opposed to abstention and heavy consumption, is associated with improved health outcomes through reduced risk of heart disease, stroke, and hypertension (Gaziano et al., 1993; Gill, Zezulka, Shipley, Gill, & Beevers, 1986; Stampfer, Colditz, Willett, Speizer, & Hennekens, 1988).

In theorizing why education is associated with alcohol consumption and impaired driving, I conceptualize alcohol consumption as a behavior predicting health outcomes. Applying the theory of learned effectiveness to both alcohol consumption and impaired driving, individuals with more education should be less likely to report DUI for multiple reasons. First, individuals with higher educational attainment should be more likely to drink in a manner consistent with a healthy lifestyle. This would infer moderate consumption, as opposed to abstinence or heavy consumption, and a reduced likelihood of binge drinking. Further, the increased human capital of the highly educated would allow for a greater ability to process information and ‘problem solve’ for alternatives to driving impaired. Highly educated people might also be able to assess their own impairment better, be more attuned to dangers and risk associated with impaired driving, and perceive greater self-efficacy and motivation to seek alternatives to DUI including taxis, public transportation, ride-sharing services, or planning for a designated driver.

Income

Income may be associated with alcohol consumption through its association to material resources, health enhancing environments and services, and stressors stemming from financial troubles or material deprivation. Low income individuals are at greater risk of heavy and hazardous drinking (Anderson & Anderson, 2006; Huckle, You, & Casswell, 2010), while individuals with higher income are more likely to be frequent light drinkers (Huckle et al., 2010; Peters & Stringham, 2006). Researchers have theorized that heavy consumption among low-income drinkers may be in response to increased exposure to material stressors; heavy consumption may be used to self-medicate strain and stress (Boardman, Finch, Ellison, Williams, & Jackson, 2001). In contrast, light and frequent alcohol consumption by people with high

incomes is likely reflective of multiple factors. Higher income drinkers have greater disposable income for consumption (Wagenaar, Salois, & Komro, 2009). Others have surmised frequent light consumption amongst people with high incomes reflects normative behavior of these income groups or results from social or job related social drinking for networking (Peters & Stringham, 2006).

Cognitive Predictors of Impaired Driving

For the second research question, I aim to identify the ways that cognitive factors mediate the relationship between sociodemographic groups and impaired driving. In this study, cognitive predictors specifically refer to DUI related attitudes and perceptions that individuals hold. For the current study, these include a measure for global support (how threatening impaired driving is to their own and their families' safety), a measure of social support (if others in their family or peer networks have planned to drive after drinking too much), and an indicator of risk perception (the likelihood of a motor vehicle accident or contact with law enforcement if driving impaired). I hypothesize that one reason specific groups are at high risk for DUI is that they hold attitudes that are conducive to impaired driving. The research question and is driven by existing literature on cognitive predictors of impaired driving. A large body of literature has connected cognitive risk factors with impaired driving ([Amlung et al., 2016](#); [D. E. Berger & Snortum, 1986](#); [Chan et al., 2010](#); [Fairlie et al., 2010](#); [Grube & Voas, 1996](#); [Marcil et al., 2001](#)). Specifically, scholars have considered how individual DUI related attitudes, such as risk perceptions and control beliefs, are associated with impaired driving behaviors. These cognitive factors have been modeled and tested as producing both direct effects on impaired driving and also as mediators of the relationship between sociodemographic or behavioral risk factors and DUI. Whether or not the research has been explicitly framed with an existing theory, studies examining the association

between cognitive predictors and impaired driving are based on the assumption that impaired driving is a conscious decision involving a consideration of the expected costs and benefits of driving while intoxicated. As the actor anticipates greater benefits of the act and fewer costs, the individual is more likely to proceed with the act. In the event of greater anticipated costs in relation to expected benefits, the likelihood of carrying out the event decreases.

Several notable studies have framed impaired driving using the Theory of Planned Behavior, using samples from Montreal ([Marcil et al., 2001](#)), England ([Parker, Manstead, Stradling, Reason, & Baxter, 1992](#)), China ([Chan et al., 2010](#)), and Norway ([Moan & Rise, 2011](#)). Despite varied methodological strategies, all studies were consistent with TPB. In each study, impaired driving attitudes, subjective norms, and behavioral control predicted intentions to drink and drive. Further, Marcil et al ([2001](#)) found self-reported drinking and driving behaviors in the previous year correlated with intentions to drink and drive. Moan and Rise's ([2011](#)) extension of TPB on a Norwegian sample suggests a structural effect of the *external* demographic variables, with varied findings by demographic subgroups. For example, perceived behavioral control was a stronger predictor of DUI intentions for individuals under 35 years old compared to those older.

Other researchers have utilized similar conceptual approaches without explicitly testing existing theories. Despite this atheoretical framework, these studies consistently revealed a direct association between cognitive factors and impaired driving. Similar to those as noted in TPB, Grube and Voas ([1996](#)) broadly define three notable cognitive predictors: (1) DUI expectancies, (2) normative beliefs, and (3) control beliefs. DUI expectancies are comprised of indicators of perceptions of risk (including risk of contact with law enforcement and risk of an accident) as well as how much alcohol an individual believes they are able to consume before they are unfit

to drive. Normative beliefs consist more of perceptions of attitudes and behaviors of *others*, specifically the extent to which significant others are perceived to either approve or disapprove of impaired driving or to engage in the behavior themselves. Lastly, control beliefs refer to perceptions of the extent to which an individual feels as though a specific DUI related behavior is under his or her control. For example, control beliefs might entail of whether or not an individual believes that there are alternatives available to driving impaired, including access to designated drivers, public transportation, taxis, or ride-sharing services.

Studies testing predictive effects of cognitive factors on impaired driving have relied primarily on underage drinkers and university students ([Amlung et al., 2016](#); [Bingham, Elliott, & Shope, 2007](#); [Fairlie et al., 2010](#); [Grube & Voas, 1996](#); [Lanza-Kaduce, 1988](#); [Mason & Monk-Turner, 2010](#); [McCarthy & Pedersen, 2009](#)), with Berger and Snortum (1986) an exception. In considering DUI expectancies, the predictive effects of risk perception vary based on the type of risk. Across multiple studies, individuals who perceived DUI as more dangerous were less likely to drive impaired than those who perceived less danger ([Amlung et al., 2016](#); [Grube & Voas, 1996](#); [McCarthy & Pedersen, 2009](#)). Bingham et al (2007) found perception of risk and danger was only predictive for women. Risk perception, pertaining specifically to formal sanctions (e.g. being arrested, perceptions of law enforcement presence) had minimal predictive effects on impaired driving ([Grube & Voas, 1996](#); [Lanza-Kaduce, 1988](#); [Mason & Monk-Turner, 2010](#)). Alternative operationalization of DUI expectancies significantly predicted DUI; individuals who reported a greater alcohol tolerance (greater number of drinks they could consume prior to it being unsafe to drive) were more likely to be classified as impaired drivers than those who reported less ([Amlung et al., 2016](#)).

Normative beliefs, referring specifically to perceptions and of DUI attitudes and behaviors of *others*, also consistently predict impaired driving amongst young adult and university samples. That is, respondents with social support for DUI (i.e. more friends would approve of the behavior or do it themselves) were more likely to self-report DUI than were those that did not ([Amlung et al., 2016](#); [Bingham et al., 2007](#); [Grube & Voas, 1996](#)). Control beliefs, referring to the extent that an individual believes a specific DUI behavior is under his or her control, were consistent predictors of impaired driving. In studies measuring control beliefs with an items asking about the ease of securing alternative transportation such as a taxi, public transportation, etc., the likelihood of DUI decreased as respondents perceived easier access to other transportation ([Fairlie et al., 2010](#); [Grube & Voas, 1996](#)).

The literature on the relationship between cognitive predictors and DUI outcomes in adults is sparse in relation to that on youth or young adults. In one of the early studies on the effect of cognitive predictors on impaired driving, Berger and Snortum ([1986](#)) used a nationally representative sample of 1,000 drivers age 16 and older. They found that an individual's moral attitudes, indicated by Likert scale responses to an item asking about whether or not it was morally acceptable to drive after consuming four alcoholic drinks of any kind, were highly significant predictors of an individual's maximum estimated blood alcohol content prior to driving in the previous year. Specifically, this was a positive association, meaning individuals who felt as though it was more acceptable were predicted to have higher estimated maximum BACs prior to driving. In this same study, indicators of normative attitudes were also significant predictors, as higher perceived approval from respondents' friends was associated with greater estimated BACs as well. Surprisingly, and potentially the result of operationalization of the DUI

outcome variable², expectancies including risk of arrest and risk of an accident were not significant predictors.

The influence of cognitive predictors on impaired driving has also been examined with interview-based qualitative studies, providing additional support for findings from quantitative approaches. Basch et al (1989) analyzed data from 40 focus groups with 316 respondents ages 18 to 22 in ten US and two Canadian cities. Themes identified included a lack of knowledge and decision-making skills, beliefs about normative behavior, previous drinking and driving experiences, and other factors. Regarding a lack of knowledge and decision-making as they relate to DUI, respondents conveyed a variety of misconceptions regarding alcohol's effect on driving ability. When asked how many drinks the respondent could drink in one hour and still remain under the legal alcohol limit, one respondent stated: "A six (pack)... With beer it's no problem to drink, but I've had three shots of whiskey and I've been absolutely stupid"(Basch et al., 1989, p. 392).

Additionally, other respondents suggested that alcohol can actually improve their driving abilities. When asked whether or not the respondent could drive pretty well if they have just had a little bit to drink, one respondent indicated: "Some people tell me I drive better when I've had something to drink... once you get into the car, maybe you sober up. Some people say that" (Basch et al., 1989, p. 392).

Additionally, a range of perspectives on normative behavior was identified, despite the authors sometimes classifying them under other themes. Several respondents indicated drinking

² Alcohol impaired driving was based on an estimate of the maximum BAC the driver had attained in the previous year. This estimate came from a measure asking the highest number of drinks the individual had consumed prior to driving, and was adjusted according to respondent weight by a conversion table provided by the Department of Transportation.

and driving was a common practice, including a statement from one respondent: “Everybody’s going to drink and get behind the wheel some time” ([Basch et al., 1989, p. 392](#)).

An additional respondent suggested that the art of drinking and driving is even an important skill that one should learn. When prompted about times the respondents had woken up the day after driving impaired and wondered how he got home and whether there was concern about that or not, the respondent indicated “Even if I’m way over the alcohol limit, I just pay extra close (attention)... I do a lot of driving... driving is second nature to me... and even drunk driving, I do that a lot. (One) should just know how to do it” ([Basch et al., 1989, p. 393](#)).

Others even hint at social rewards accumulated from DUI, suggesting that DUI was a way to show off. Further, other responses align with quantitative findings in regards to the role of risk perceptions in DUI behaviors, either in regards to the risk of police contact or the risk of an accident. In regards to the likelihood of being caught by the police, one respondent mentioned that there were lots of bright people who had never been caught, suggesting the likelihood of police contact was low. When asked about whether he was concerned about having an accident during a previous DUI event, another respondent frankly stated he was not.

A more recent interview study specifically considered the role of alcohol expectancies, normative attitudes, and control beliefs as they relate to DUI among a sample of 44 adolescents who had previously acknowledged DUI in the San Francisco Bay Area ([Nygaard et al., 2003](#)). In regards to expectancies, responses often convey an understanding of the risk involved with DUI, as indicated in this response to a question about whether many people are stopped by police in his neighborhood: “No, actually ... my neighborhood is pretty quiet, so I never see any cops on the back roads (?), so it is not like the town next to me, there are a lot more cops there, and I won’t drink and drive there”([Nygaard et al., 2003, p. 843](#)).

The respondent went on to acknowledge that perceptions of law enforcement do influence where he drives. Overall, respondents reported a fear of police contact but they also felt as though the risk of police contact after DUI was very low.

Normative attitudes were also examined by asking how parents, friends, and peers influenced behavior. Regarding parents, few of the respondents reported much regular communication with their parents about DUI. Data indicated inconsistent findings in regards to the role of peer attitudes and behaviors on DUI. Although most respondents acknowledged that their friends were involved with impaired driving, the topic was rarely discussed and respondents did not acknowledge that they ever felt pressured to drive while intoxicated. However, respondents did feel as though their friends would react negatively to them drinking and driving.

Similarly, control perceptions also played a role in adolescent decisions to drink and drive. Specifically, perceptions of alternative transportation, as opposed to actual availability, seemed more important. Other respondents mentioned their ability to drive while drunk, who use previous avoidance of accident or police contact during a DUI experience as proof that they are capable. The majority of respondents who drove while intoxicated actually believed they drove safely after drinking because of increased alertness, caution, and focus. To remain safe and avoid contact with police, respondents reported a variety of strategies, as indicated by a 21-year-old Hispanic man:

“Driving is pretty simple, especially in an automatic car on nonhighway situations. Driving is like a program almost, you don’t have any choices to make—come up to a stop sign, you have to stop. So if you stick to really easy streets to drive, then driving is just like you’re in a program. You know your way home, now follow the program, stop where you have to stop, and just go in a straight line. It’s real easy ... I drive real smart, I don’t tailgate, I don’t hang around other cars that might make crazy decisions, I’m always looking 360 degrees at every second. So even though I’m super drunk, I’m still aware. I mean, something might pop out of somewhere, but I think if you’re a little more

prepared, you know you're drunk, so what, you have the extra sense to look around and prevent [an] accident basically” ([Nygaard et al., 2003, p. 853](#)).

Similarly, it was common for respondents to report a discrepancy between the danger presented themselves and others after drinking similar amounts of alcohol. Specifically, adolescent respondents felt more capable of driving after drinking than they felt their peers were.

I now attempt to synthesize and interpret these broad contributions within the framework of Social Learning Theory and the Theory of Planned Behavior. In doing so, I more thoroughly inform my included analyses. Central to both social learning theory and to Blumer ([1986](#)) and Mead's ([1934](#)) early work on symbolic interactionism is an inherently social meaning making process. Specifically, social learning theory contends that it is through differential association with other individuals that produces differential reinforcement for our behaviors and attitudes ([Akers, 1990](#)). From this process of differential reinforcement, individuals develop and modify their definitions and cognitive scheme as they relate to deviance or conformity. Inherent in this process is the cumulative nature of knowledge and meaning, collected across the life course, which is used to inform current and future action ([Akers, 1990](#)).

I see social learning theory as consistent with the proposed theoretical frameworks to interpret gendered, racial, age, or SES related differences in both alcohol consumption and/or risky behaviors. However, as noted by Herd ([1987](#)) in consideration of drinking by Black individuals, there is a more inter-related and macro system which also informs how processes of differential association, differential reinforcement, and the resulting individual cognitive schemas are developed. Considering gender, existing studies are consistent in that the construct of gender itself serves as a marker through which individuals are developing meanings pertaining

to alcohol. So although differential association and reinforcement certainly are influential, it is important to recognize that these interactions are ultimately shaped within a shifting context of gender expectations as well. In this sense, reinforcement received in interactions is likely reflective of more macro gendered expectations regarding alcohol. In a similar manner, it is likely these same processes are consistent for structural markers including race, age, and socioeconomic status.

It is equally important to synthesize these theoretical contributions in conjunction with the Theory of Planned Behavior ([Montaño & Kasprzyk, 2008](#)). The TPB more explicitly accounts for how structure informs systematic variance in individual-level behaviors with the inclusion of sociodemographic indicators as ‘external variables’ (see Figure 2.2). Variance in key mediating variables in TPB models, including attitudes, subjective norms, and perceived behavioral control, is predicted in part by socio-structural markers, including gender, race, education, and income. Theoretical contributions on the association between alcohol and these socio-structural markers serve to strengthen the applicability of TPB to impaired driving models. In short, the inclusion of alcohol related theory is consistent with TPB as it more fully illustrates *why* socio-structural markers produce systematic variance at the individual level.

Variance in alcohol related attitudes and norms for men and women reflects gendered norms regarding alcohol, where men and women use alcohol differently to *do gender*. Specifically, men hold more permissive attitudes towards alcohol than do women in part because of established gender roles. Inconsistencies in drinking attitudes and behaviors by race reflect evolving cultural, psychological, and historical factors. Education serves to structure individual attitudes and behaviors through variance in human capital. Education increases human capital,

which promotes healthier lifestyles and therefore moderate alcohol consumption among the highly educated. Lastly, income structures individual attitudes and agency through access, or lack thereof, to important material resources and exposure to stressors. Together, theories linking alcohol consumption and sociodemographic membership is consistent with an impaired driving TPB model, where variance in individual outcomes traces back to important socio-structural markers. This contribution extends previous TPB framed studies with a detailed theoretical discussion of how socio-structural markers influence individual attitudes and behaviors.

Behavioral Predictors of Impaired Driving

For this project, I ask how cognitive and behavioral factors mediate the relationship between sociodemographic groups and impaired driving. In previous sections, I presented literature linking cognitive predictors to impaired driving. In this section, I illustrate the necessity of including behavioral predictors in DUI models. Variation in impaired driving has also been conceptualized as function of differences in behavioral factors, primarily including alcohol consumption and binge drinking. Scholars have consistently documented the increased risk of injury and accidents associated with alcohol consumption, even at what are commonly believed to be non-threatening levels. Even moderate alcohol consumption can have exponential effects on crash risk ([Zador, Lund, Fields, & Weinberg, 1989](#)). Although some important skills needed for driving become impaired at blood alcohol levels as low as .01 or .02, more significant risks are noted for blood levels between .05 and .09 ([Moskowitz & Burns, 1990](#)). Zador ([1989](#)) suggests that fatality risks in single vehicle crashes with an impaired driver in this threshold are almost 9 times greater than for those where a driver has no BAC. Not surprisingly, then, is a line of research connecting behavioral predictors, in the form of alcohol consumption and binge

consumption, to impaired driving. Below, I discuss several studies detailing the direct association between these behavioral predictors and impaired driving.

The examination of behavioral risk factors centers on individual drinking behaviors, including measures for quantity and frequency of consumption ([Everett et al., 1999](#); [Fairlie et al., 2010](#); [Flowers et al., 2008](#); [Grube & Voas, 1996](#); [Sloan et al., 2013](#)). There are well documented associations between individual level drinking behaviors and impaired driving that are consistent across subsets of the population, including adults, university students, and young adults.

Both the Survey of Alcohol and Driving and the Behavioral Risk Factor Surveillance System have documented relationship between individual measures of alcohol consumption and impaired driving. Using a sample of 1,516 adults, Sloan et al ([2013](#)) found that binge drinkers, defined as men who report consuming 5 or more alcoholic drinks per drinking occasion or women who report 4 or more per occasion, were 5 times as likely to self-report driving while intoxicated than other types of drinkers. Heavy drinkers included men under 65 who consume 14 or more alcoholic drinks per week and women who consume 7 or more alcoholic drinks per week. Heavy drinkers who *did not* report binge drinking were over twice as likely to report driving while intoxicated than non-heavy drinkers. At most risk, however, were individuals who were classified as both binge and heavy drinkers. These drinkers, who met the criteria for heavy and binge drinking, were nearly 12 times more likely to report driving while intoxicated than were other drinkers ([Sloan et al., 2013](#)).

Findings from the Behavioral Risk Factor Surveillance System indicate similar associations. Nearly a quarter (22.2%) of respondents classified as binge or heavy drinkers reported driving after “perhaps having too much to drink” in the previous 30 days, nearly twice the prevalence of those classified as binge/non-heavy drinkers (11.3%). The prevalence of

alcohol impaired driving was much lower for non-binge/heavy drinkers (3.2%) and non-binge/non-heavy drinkers (1.1%) ([Flowers et al., 2008](#)). Controlling for sociodemographic differences, binge/heavy drinkers were more than 20 times more likely to report impaired driving than were non-binge/non-heavy drinkers, while binge/non-heavy drinkers were over 8 times as likely ([Flowers et al., 2008](#)).

This direct association held amongst younger and university samples as well. In both the National College Health Risk Behavior Survey and a sample from a public university in the Northeast U.S., greater consumption was associated with higher odds of impaired driving. This was the case for drinking frequency and quantity of consumption, measured by the number of heavy episodic episodes of drinking as well as the number of drinks per week ([Everett et al., 1999](#); [Fairlie et al., 2010](#)). Greater alcohol consumption was linked to more self-reported impaired driving on a sample of younger adults and licensed drivers ages 16 to 20 in California, Colorado, Idaho, Nevada, Texas, Washington, and Wyoming ([Grube & Voas, 1996](#)).

Behavioral and Cognitive Predictors as Mediating Variables

Research on impaired driving has identified specific sociodemographic groups as being at greater risk for impaired driving. Specifically, males ([Amlung et al., 2016](#); [Delcher et al., 2013](#); [Flowers et al., 2008](#); [Sloan et al., 2013](#)), and individuals under the age of 40 ([Flowers et al., 2008](#); [Quinlan et al., 2005](#); [Voas, Wells, Lestina, Williams, & Greene, 1998](#); [Williams, 2006](#)) are more likely to report impaired driving than their respective reference groups. Evidence on racial and ethnic differences in impaired driving is mixed, with some national surveys finding Whites at greater risk of DUI than non-Whites ([Quinlan et al., 2005](#)), while others found no significant association ([Flowers et al., 2008](#)). Findings from the Fatal Accident Reporting System (FARS) indicate a similar percentage of White (31%) and Black drivers (32%) who were killed and had

BACs at or over 0.08, while Mexican Americans (46%) and Native Americans (48%) were much higher. Lastly, there is some evidence indicating an inverse relationship between educational attainment and impaired driving ([Sloan et al., 2013](#)).

As noted by Blumer ([1986](#)), it is common practice to identify associations between two concepts without further exploring the meanings or processes that drive the associations. This critique is applicable to research on impaired driving. Despite the majority of studies failing to explore the mechanisms linking specific population subsets (i.e. men, individuals under 40) to increased risk of impaired driving, several had utilized mediational models or other approaches to consider what drives these relationships.

Behavioral Mediators

Studies consistently indicate that behavioral risk factors, specifically alcohol consumption, are more common among specific subgroups than others. The distribution of hazardous drinking, typically defined as binge drinking (consumption of five or more drinks per sitting per men or 4 or more drinks per sitting for women) or heavy drinking (binge drinking on 5 or more occasions within the previous 30 days), varies across sociodemographic groups. Nationally representative data from the Behavioral Risk Factor Surveillance System (2010) indicate men are over twice as likely to be binge drinkers as women (23.2% vs. 11.4%) ([Centers for Disease Control and Prevention, 2011](#)). Data from the 2016 National Health Interview Survey provide further evidence in support of gender disparities in consumption, although not quite as extreme. For 2016, 31.6 percent of men reported at least one heavy drinking day (defined the same as binge drinking in this study) in the previous year, as opposed to 18.9 percent of women ([Clarke, Norris, & Schiller, 2017](#)). Binge drinking was also most likely reported by younger individuals, with respondents age 18 to 24 (28.2%) reporting the highest

prevalence, followed by respondents age 25 to 34 (27.9%), and continuing to decrease with increasing age. Whites (18%) and Hispanics (17.9%) were more likely to report binge drinking than Blacks (12.7%) and respondents from other racial groups (15.3%) ([Centers for Disease Control and Prevention, 2011](#)).

These racial and ethnic disparities in heavy drinking were similar in more recent nationally representative surveys as well, indicating Whites (31.2%) were most likely to report at least one heavy drinking day in the previous year, followed by Hispanics (22.1%) and Blacks (15.4%) ([Clarke et al., 2017](#)). There are also differences by educational attainment and income classification; the prevalence of binge drinking is higher among those with more education, including some college (19%) and college graduates (18.2%) than respondents with a high school diploma (17.6%) or less than a high school diploma (13.7%). Income and binge drinking follow a consistent progression, with prevalence increasing with each increase in income classification ([Clarke et al., 2017](#)).

Cognitive Mediators

These cognitive factors were also relevant as mediators in models from several studies. Structural equation models from Grube and Voas's ([1996](#)) study of underage drinking drivers from seven Western US states highlight the role of cognitions as mediating the relationship between both alcohol consumption, as well as sociodemographic indicators, and DUI. Specifically, greater alcohol consumption was indirectly associated with DUI, as it was associated with decreased control beliefs, lowered risk expectancies, normative beliefs, and enforcement expectancies, and three of these four (excluding enforcement) were associated with more frequent impaired driving. In addition, cognitive predictors mediated the relationship between sociodemographic predictors and impaired driving. In regards to higher risk factors for

specific groups, men and Whites were at greater risk in part because they saw impaired driving as less risky, more socially acceptable, and perceived fewer available alternatives. Education also indirectly negatively influenced DUI; increased education was associated with increased enforcement expectancies and greater perceived disapproval from peers ([Grube & Voas, 1996](#)). Lastly, there is evidence that cognitive factors are indirectly influenced by through drinking behaviors and driving behaviors. Specifically, men, Whites, and Hispanic/Latino drivers anticipated less risk from impaired driving because they drank more. In addition, men and Whites perceived less social approval from impaired driving, but this was because they drank more. Similarly, being a man and White or Latino indirectly decreased control beliefs because of greater alcohol consumption ([Grube & Voas, 1996](#)).

Amlung ([2016](#)) ran a similar but reduced model of Grube and Voas ([1996](#)), considering the mediational role of alcohol related cognitions between alcohol demand and impaired driving. Models offered mixed support for the role that cognitive predictors mediate the relationship between alcohol demand and DUI. Only perceived personal limit, assessed by asking how many drinks the respondent could consume in two hours before it became unsafe to drive, partially mediated the relationship between indicators of alcohol demand and a count of alcohol impaired driving episodes. Normative beliefs did not moderate the relationship, operationalized as the number of friends who would approve or disapprove of the DUI behavior ([Amlung et al., 2016](#)).

The role of risk perception has also been examined in several other studies, with consideration given to differences by age and race. Finn and Bragg ([1986](#)) considered how perceptions of risk of an accident varied by age, presenting hypothetical impaired driving vignettes to respondents to gauge their perception of risk. Analyses indicate younger drivers perceived impaired driving as presenting less of a risk of an accident than did older drivers. In

analyses of a sample of over 1,500 drivers from an 8 city sample, Sloan et al (2013) found evidence of racial differences in risk perceptions of impaired driving. Black respondents were more likely to feel as though they would be stopped for driving under the influence of alcohol when compared to Whites. However, despite greater perceptions of the likelihood of being stopped, Black respondents perceived a lower likelihood that they would be convicted if they were stopped.

Given the preceding review of the extant literature, I now present research questions and hypotheses that will guide the analyses. I first list these for the analyses using data from the National Survey of Drinking and Driving Attitudes and Behaviors.

1. How do sociodemographic groups differ in their likelihood of impaired driving?
 - a. H1: Men will be more likely than women to self-report impaired driving.
 - b. H2: Youth and young adults (ages 34 and younger) will be more likely than older adults to self-report DUI.
 - c. H3: White respondents will be more likely than Black and other race respondents to drive impaired.
 - d. H4: Individuals with lower educational attainment will be at greater risk for DUI than will individuals with higher educational attainment.
 - e. H5: Individuals with lower income will be at greater risk for DUI than will individuals with higher income.
2. In what ways do cognitive and behavioral factors mediate the relationship between sociodemographic groups and impaired driving?
 - a. H6: Individuals at higher risk of DUI will be more likely to report binge drinking than will those at lower risk.

- b. H7: Individuals at higher risk of DUI will report greater monthly alcohol consumption than will those at lower risk.
- c. H8: Individuals at higher risk of DUI will hold more positive global views of DUI than will those at lower risk.
- d. H9: Individuals at higher risk of DUI will view DUI as less risky (i.e., as having a lower likelihood of accidents or contact with law enforcement) than will those at lower risk.
- e. H10: Individuals at higher risk of DUI will have more social support for DUI from their peers than will those at lower risk.

In summary, literature on impaired driving centers on cognitive and behavioral predictors. At the cognitive level, research has indicated that perceptions of risk, attitudes, subjective norms, and perceptions of control are associated with self-reported impaired driving. Generally, self-reported impaired driving is more likely when individuals perceive it as less risky, perceive it morally ok, and feel as though significant others would approve of it. At the behavioral level, self-reported impaired driving is more likely amongst those who consume alcohol more frequently and those who report binge drinking more often. Despite this research and efforts to reduce impaired driving, many impaired drivers are arrested each year. I now turn to an examination of these DUI offenders who come in contact with law enforcement.

DUI Offenders

Despite statistics indicating between one-fifth and one quarter of drinking age drivers acknowledge operating a motor vehicle within two hours of drinking alcohol ([Moulton, Peterson, Haddix, & Drew, 2010](#); [Royal, 2003](#)), estimates indicate the likelihood of a drinking driver being

arrested for impaired driving is relatively low (roughly one in 200 for drivers with a BAC of 0.10 or higher) ([Beitel et al., 2000](#)). Despite this low likelihood, over 1.1 million individuals were arrested for driving under the influence of either alcohol or drugs in 2014 ([FBI, 2014](#)). This large group of DUI offenders represents the population who both made the decision to drive impaired and were arrested and are subject to a range of possible sanctions. In addition to economic sanctions, which can total in excess of \$10,000 ([National Highway Traffic Safety Administration, 2018](#)), offenders generally receive misdemeanor or felony offense charges. Other common legal sanctions include license revocations or suspensions, fines, and/or jail time ([National Highway Traffic Safety Administration, 2018](#)). Outside of formal sanctions, there is evidence that offenders are subject to more informal sanctions as well, including an increased likelihood of divorce and intrapersonal consequences including shame, guilt, anger, embarrassment, or feeling stupid ([Lapham & England-Kennedy, 2012](#); [Oksanen, Aaltonen, & Kivivuori, 2015](#)).

The literature explored thus far suggests multiple predictors of impaired driving, which is also represented in Figure 1. Specifically, some individuals make the choice to drive impaired because they perceive a low likelihood of police contact or of having an accident. Others do not see impaired driving as threatening to others or themselves. Still, other drivers have significant social networks that are supportive of impaired driving. Other individuals choose to drive impaired because they feel confident in their driving abilities despite consuming alcohol in excess of the established legal BAC limit. Shifting to behavioral predictors, other individuals are at greater risk of DUI through their consumption habits, measured either by the frequency and quantity of consumption or their binge drinking patterns. Research on the mediating effects of both cognitive and behavioral predictors indicates that it is because of variance in attitudes or

behavioral patterns that specific sociodemographic groups are at greater risk of DUIs, including men and youth- who notably drink more and perceive less risk from DUI than do women and older individuals. As noted above, although the likelihood is quite low, some of these impaired drivers are apprehended and arrested by law enforcement. These individuals are represented on the right of Figure 1. Qualitative data, available from reddit, provide some insight as to post-arrest outcomes, explored in greater detail below.

I argue that individuals who are arrested for impaired driving face a dilemma, with the receipt of an undesirable stigma ([Goffman, 1986](#)). As many are confronted with legal or informal sanctions from impaired driving for the first time, they may be unsure of what to expect or how they should best navigate the post DUI process. How does the individual manage the receipt of this new stigma? Do they accept full responsibility and own up to their deviant behavior? Or do they assume other strategies to attempt to minimize their role in the process? Further, how are they making sense of the DUI experience in general? How does an offender manage this new deviant label?

Theoretical insight from foundational symbolic interactionists, including Blumer ([1986](#)), Mead ([1934](#)), and Goffman ([1959](#), [1986](#)) help to frame the micro-level processes associated with the receipt of a DUI arrest. Blumer ([1986](#)) posits that, first and foremost, individuals formulate their actions in response to the meanings they attach to objects around them. Second, social interaction with others produces the internalized meanings that individuals hold, indicating meanings are inherently social as opposed to intrinsic. Third, these meanings are fluid as opposed to static; meanings are constantly interpreted and reinterpreted in continued interactions with objects and people ([Blumer, 1986](#)).

As noted in the third tenet of Blumer's (1986) symbolic interactionism, meaning making occurs through a "process of interpretation" (p. 5), made possible given an individual's ability to interact with himself. In this process of internal dialogue, the individual brings attention to the object in which he acts and is capable of managing meanings in regularly shifting social contexts. In the ongoing and continual process of interaction with others or through internal dialogue, the actor modifies meanings to further guide actions and behaviors. Further, given the social nature of our actions and behaviors, individuals regularly take the perceived meanings of others into account when modifying meanings or acting upon them (Blumer, 1986). Pertinent to this study, individuals make decisions to either drive impaired or not based on interpretation of socially developed meanings as they relate to factors such as risk, social approval, and thoughts of control. In this sense, impaired driving decisions are formulated through both internal and external dialogue, using interpretations of meanings that are context specific. For instance, as noted in interviews by Nygaard et al (2003), the interpretation of risk is very much context specific, depending in part on how much the individual drank and in what areas the person intends to drive.

Mead (1934) also discusses the relationship between meanings and the self. Similar to Blumer (1986), Mead (1934) discusses an inherently social three stage meaning making process. First, an individual makes some sort of gesture. Next, another actor responds to that gesture. This meaning making process is complete when the second actor responds in a manner that is consistent with what was expected (Mead, 1934). Once more routinized, the gestures become entrenched in the form of language. Importantly, meanings can be adapted and adjusted through social interaction, which is made more efficient through the use of language. Language also

facilitates the development of the self, where the individual can see himself as an object and communicate with himself (Mead, 1934).

Distinctive in Mead's (1934) symbolic interactionism, the individual experiences himself from the standpoint of how he perceives others see him. In other words, he takes on the attitudes of similar others who also participate in collective meaning making with him. Applied to DUI offenders, this is an especially relevant concept. An offender, with a recent DUI arrest, perceives how others view him. In further discussion of the self, Mead (1934) posits the self consists of two interdependent components- the I and the me. The I and the me are developed as part of the socialization process, in what Mead terms the play and game stages. In these stages, the individual begins to understand how he is perceived by one other actor (play stage) or multiple others simultaneously (game stage). Upon commencement of the game stage, an individual has developed a sense and understanding of the generalized other, or the perceived attitudes of the community as a whole. With an understanding of the generalized other, the individual recognizes how multiple others interact with their worlds and within the confines of rules. To develop a full self, according to Mead (1934), is to also move beyond the understanding of the generalized other. He states:

“He must also, in the same way that he takes the attitudes of other individuals toward himself and toward one another, take their attitudes toward the various phases or aspects of the common social activity or set of social undertakings in which, as members of an organized society or social group, they are all engaged; and he must then, by generalizing these individual attitudes of that organized society or social group itself, as a whole, act toward different social projects which at any given it is carrying out, or toward the various larger phases of the general social process which constitutes its life and of which these projects are specific manifestations” (p. 155).

Society is dependent on individuals being able to internalize this generalized other and be able to adjust their behavior in accordance with these expectations and meanings. As such, the generalized other serves to govern our individual conduct- it informs us of what our community expects from us but is also situationally dependent. In that sense, the self, which has internalized the attitudes of the multiple groups in which it participates, represents a social self (Mead, 1934). The social self, aware of the social expectations of conduct, is aware that a DUI arrest contrasts societal expectations of conduct.

Lastly, Mead (1934) notes two distinct parts of the self: the “I” and the “me.” The me represents the more social part of the self and can be conceptualized as a collection of generalized others, or the part of us that is aware of the collective expectations of others. The I, however, is the part of the self that acts in response to these expectations, although sometimes in an unpredictable manner. Together, the self is also fluid in that the I is reacting to an ever-evolving me, which is influenced by continued participation in social processes (Mead, 1934). As an application of Mead (1934) to an analysis of DUI narratives, the narratives represent a running transcript of the internal dialogue of the offender, in which he is communicating not only to others but also to himself as he attempts to process his offender status.

Goffman (1986) developed a framework for understanding stigma, particularly relevant to DUI offenders. In defining stigma, Goffman (1986) notes that due to our categorization of people according to attributes, some individuals possess attributes that are different, and often less desirable, than the person we expect them to be. These attributes can vary greatly, but often represent associations with being bad, weak, or dangerous. In short, the stigma represents a discrepancy between an individual’s actual social identity and the person we assume they should be- their virtual social identity. Goffman (1986) notes three specific types of stigma, including

bodily stigma as represented by physical abnormalities, and tribal stigmas including race, nationality, or religion. Lastly, and more pertinent to the current study, are what Goffman (1986) terms “blemishes of individual character” (p.4), and are largely represented by abnormal behavioral or attitudinal characteristics including dishonesty, addiction, unemployment, etc. In sum, the individual possesses some trait or attribute that alters the way members of a society would treat him, often in an undesirable manner. Often this stigmatized person receives some form of social discrimination, complete with internalized ideologies which justify this treatment (Goffman, 1986).

Goffman (1986) also indirectly asserts that the effects of stigma stem from social processes. The stigmatized individual often fully understands what society expects them to be according to their social position; the receipt of a stigma, however, impacts the individual because they are often able to clearly see the areas in which they fail to meet social expectations. As a result, the stigmatized individual often feels a sense of shame as a response. Goffman (1986) further notes the tendency of stigmatized individuals to attempt to rectify their stigma. Often, however, the attempts to diminish the stigma are not wholly successful, but rather entail of efforts to at least restructure the meaning to at least recognize that the individual made attempts to remedy the received stigma (Goffman, 1986).

Goffman (1986) posits that anxiety is a common response to stigma, and indicates stigmatized individuals may express a hesitancy to communicate with “normal” individuals because they are unsure of how they will be received. In other words, he or she is unsure of how others will define him or her or if her or she will be capable of being fully accepted. Because the stigmatized individual is often confronted with these situations of unease, he or she becomes more skilled at managing them. In managing stigmas, individuals use the stigma to assist in

organizing their daily lives, often turning to descriptive tales to account for how the stigma was received ([Goffman, 1986](#)). In addition, stigmatized individuals often seek membership in collectivities with similarly stigmatized individuals. Goffman ([1986](#)) notes that collectivities often form and allow members to formulate some sense of ideology and often take the form of some publication. In essence, this publication can serve to provide information, share success stories of assimilation, tales of mistreatment or poor behavior experienced by normal individuals, and as a forum in which individuals can offer varied opinions as to how specific situations might be managed ([Goffman, 1986](#)).

Additionally, some of the stigma received by an individual may be shared by their close contacts, including friends or family. As a result, these relationships are sometimes avoided or might even be terminated. Goffman ([1986](#)) notes several phases of socialization which influence how an individual comes to know and manage stigma. First, the individual learns what ‘normal’ is and gains a general understanding of what Mead ([1934](#)) terms the generalized other. It is in this stage that he or she gains an understanding of how individuals perceive those with a stigma. In a later phase of socialization, the individual learns that he or she possesses that stigma and must consider the consequences of possessing it. In the case of DUI offenders, individuals must begin to explore how their DUI arrest will be influential in their lives. Goffman ([1986](#)) notes that given the specific timing in which the stigma is received, multiple patterns of management emerge. An individual who receives a stigma in later life, as opposed to someone born with some noticeable physical blemish, by then has a functional understanding of how individuals with the stigma are perceived. Given he or she now understands they possess the stigma, he or she faces specific challenges in learning to re-identify himself, with a sense of self-disapproval. In this instance, the individual will also be somewhat reliant on others to inform their new definition of

self. Accordingly, Goffman (1986) notes a specific tension stigmatized individuals feel with social contacts from their pre-stigmatized period, who may be unclear on how to treat the post-stigma person. However, contacts with other similarly stigmatized individuals in the present may also be uncomfortable, as the individual may struggle when seeing undesirable attributes in others that he does not associate with himself (Goffman, 1986).

Goffman (1986) posits that one reason stigmas are damaging is the fact that stigmas ultimately convey that an individual should be excluded from full participation in some life activity, which is stigma-specific. Distinguishing between those with apparent and noticeable physical abnormalities (the already discredited) and those with a more concealable and secretive stigma (the discreditable), Goffman (1986) indicates that the management of relationships varies according to the visibility of the stigma. In the case of a discreditable stigma, such as a DUI charge, which is fairly easily concealed, there is unease in sharing with close contacts, as concerns arise that the relationship may be damaged. Relationships with strangers and more distant contacts, however, may be relatively unchanged, as the stigma is easily concealed. Regardless of the concealable nature of the stigma, the stigmatized individual often holds questions and concerns about whether or not the stigma should be revealed to others, often resulting in a heavy psychological burden on the stigmatized individual (Goffman, 1986).

In examining social situations, Goffman (1959) compares individuals to actors putting on a performance. As part of the performance, in which individuals try and foster a specific attitude amongst the audience, the actor utilizes both a front stage and a back stage. In the front stage, the actor manages a specific setting and also his personal front (including his sex, age, speech patterns). The individual's personal front can be further divided into appearance and manner, with appearance referring to the markers the actor employs to tip off the audience to his or her

social statuses ([Goffman, 1959](#)). The manner refers to the stimuli that tip off the audience of the role the actor will assume in subsequent interactions, such as an initiator of conversations or someone who will follow the lead of others. Goffman ([1959](#)) notes that when an actor assumes a role, he or she operates within the parameters of an already socially defined role rather than having to create a new role. In other words, Goffman ([1959](#)) argues that fronts are selected as opposed to created. In putting on a specific performance and aiming to foster a specific reaction from the audience, the actor injects pertinent information into his or her performance to insure that the audience receives the message that is intended. The actor often presents an idealized performance, in which he or she aims to present his or herself in the best light as possible and in a manner which aligns with social expectations ([Goffman, 1959](#)). In aiming to represent an idealized version of him/herself or their act, specific facts or details, which may serve to contaminate the image being broadcast, will likely be concealed. Audience members, on the other hand, should they choose, have the task of identifying discrepancies between the front being projected and the reality ([Goffman, 1959](#)).

In contrast to the front, in which the individual performs in front of an audience, the backstage is where the individual prepares for his performance. The backstage is where the performer is getting his act ready, performing fact checking and running through his anticipated routine ([Goffman, 1959](#)). The backstage is both physically and mentally separate from the frontstage, and audience members are excluded from backstage performance. The backstage allows the actor to practice his performance to most effectively perform impression management so that his frontstage performance imparts the impression that he or she seeks ([Goffman, 1959](#)).

The use of Goffman's presentation of self is becoming increasingly popular to analyze online participation ([Hogan, 2010](#)). Common to the application of Goffman to online content is

the tendency of individuals to selectively disclose information to the audience to insure that the audience is only privy to the idealized version of the self that the actor seeks to present ([Hogan, 2010](#)). In computer-mediated communication, the nonverbal cues available to the actor in face-to-face interaction are absent. Given this absence, it is arguable that the actor must be more strategic and rely more on verbal and linguistic cues ([Ellison, Heino, & Gibbs, 2006](#)).

This online impression management, framed using Goffman ([1959](#)), has been studied by several researchers ([Ellison et al., 2006](#); [Toma, Hancock, & Ellison, 2008](#); [Yang & Brown, 2016](#)). Ellison et al ([2006](#)) conducted interviews with individuals about their experiences with online dating to specifically answer questions pertaining to online impression management. They found that individuals did in fact report a variety of self-presentation strategies. These strategies included attentiveness to small cues in the management of their dating profile (i.e. spelling, language, length of message), conscious representation of their idealized selves (who they wished to be), and techniques of establishing credibility. Because traditional cues to establish credibility are limited in online interactions, participants used specific strategies to show their attributes as opposed to simply listing them. The use of pictures was a common strategy used to establish credibility.

Toma et al ([2008](#)) also explored impression management in online dating. As noted above, computer mediated communication is a unique form of communication with implicit resources and deterrents for deception, making it distinct from face to face interaction. Using a sample of 80 participants in New York City who were active on online dating websites, Toma et al ([2008](#)) found evidence of deceptive strategies of impression management, in which participants intentionally presented an idealized version of themselves as opposed to a more accurate portrayal. More specifically, over three quarters of participants had information on their

profile which failed to accurately represent at least one of their observed characteristics (i.e. appearance, social status, age). Further analyses suggest that these inaccuracies were intentional rather than accidental.

Online impression management is not limited to online dating. Instead, it is observable on social networking sites such as Facebook. Yang and Brown (2016) studied Facebook as an online domain where young adults practice impression management while transitioning to college. Self-presentation was assessed using items which measured the breadth, depth, positivity, authenticity, and intentionality of user postings. Within this sample of college freshmen, individuals acknowledged being deliberate in their self-presentation, reflecting their assessments of the social contexts in which they participated while also being cognizant of the goals they sought to obtain. These goals included social rewards such as being perceived as socially attractive. Despite acknowledging deliberate attempts at impression management, participants maintained the self-presentation was authentic.

Goffman's (1959) contributions of the dramaturgical perspective are helpful in framing why this anonymity takes on special importance in individuals sharing content regarding stigmatizing behavior such as an impaired driving charge. Goffman (1959) cites the particular stage, or the social context, as providing the cues as to what normative behavior is expected in particular situations. He posits that what is considered normative behavior, which would include dialogue and conversational exchange, varies in relation to the stage (which includes the audience) on which the performance takes place (Goffman, 1959). The relative anonymity afforded reddit users allows the individual to acknowledge and share often detailed stories of a stigmatizing experience such as a DUI arrest in a manner which remains in accordance with the normative expectations of the perceived audience. To provide further support of this argument,

users often mention their status as ‘lurkers’ prior to posting, indicating they consumed content from that subreddit prior to posting, thus developing a sense of normative expectations of users. This anonymity allows the user to post details of the stigmatizing experience of a DUI, gauging a reaction from a generalized other ([Mead, 1934](#)). One could hypothesize that acknowledgement of a DUI infraction on reddit, as opposed to social media sites in which the individual’s identity is clearly known and the normative expectations are less clear, represents an opportunity to seek support or advice regarding their DUI experience while incurring the least damage to self-presentation.

In synthesizing these foundational works and applying them as a framework to interpret individual DUI narrative, special attention should be granted to inferred meanings and to iterative and social processes of both defining and re-defining the situation. In addition, special attention should be granted to considering the idealistic nature of the DUI narratives, as consistent patterns of presentation or information (or concealment of) are indicative of social expectancies of both impaired driving and DUI offenders.

In my analyses, I examine text data from reddit forums in which individuals post DUI narratives. These narratives typically describe, often in great detail, an individual’s DUI experience. Narratives often include the preceding events, including who, where, or why the individual was consuming alcohol, the type and amount of alcohol consumed and over what duration of time, and the reason the person was stopped by the police or had some contact with law enforcement. In addition, narratives often include details on the field sobriety tests conducted and the results, the official blood alcohol content recorded, and some post-arrest information. In addition to the original post, other reddit users provide feedback in the form of

comments linked to the original post, either offering advice or sometimes challenging the details of the original post.

The reddit posts contain rich detail of how DUI-offenders attempt to confront and address a psychological burden associated with the receipt of a new stigma. Further, I argue that given its relatively anonymous nature, reddit represents a novel forum for re-interpreting the meaning of the new stigma in a way in which threats to an individual's presentation of self are minimized. As a recently arrested DUI offender, the individual is confronted with the receipt of a stigma. Given his prior socialization experiences, as theorized by Goffman (1986), he or she has an understanding of what this DUI represents and how it may limit his or her full participation in specific life or career domains and is also aware of how it threatens his or her identity. He or she has been socialized to have an awareness of what is expected of someone of a similar social status, and the DUI charge is incongruent with this perception. This DUI charge represents a discrepancy between this virtual identity, representing who he or she and society expect him or her to be, and his or her *actual* identity. Given his or her recognized failure in meeting societal expectations, he or she tends to feel a sense of shame or disapproval of himself. Further, and given the relative ability to conceal the receipt of a DUI, the recently stigmatized individual is confronted with an additional dilemma in considering with whom (or if) the stigma should be shared.

As proposed by Goffman (1986), given the tendency of stigmatization to burden an individual's close contacts, and potentially lead to relational damage or even termination, the relative anonymity that reddit provides allows the individual access to a new generalized other³.

³ Reddit users often use throwaway accounts or take other measures to ensure their content cannot be linked with their permanent identity.

In addition to the anonymous nature of reddit, the forum is unique in that it serves as a space in which similarly stigmatized individuals can gather to distribute or seek advice, share experiences, and re-interpret what having a DUI means for an individual's future. Further, the public nature of reddit grants offenders the ability to examine and familiarize themselves with normative expectancies from posts, comments, and this generalized other prior to participating. This ability to 'lurk', or browse the subreddit and posts prior to posting, are representative of what Goffman's concept of the back-stage. It is in this area that an individual does the preparatory work for his front-stage performance, which in this case can be represented by his DUI narrative which is posted onto reddit.

As a front stage performance, the DUI narrative represents a recently stigmatized individual's attempt at imparting upon an anonymous audience an idealized version of himself and the details of his DUI experience, in a manner that reflects the image of himself that he or she seeks to present. The posted DUI narrative, available to the audience, represents a planned and coordinated act, necessarily including pertinent information needed to portray the actor in a specific, and often desirable, light. Likewise, it is highly likely that that actor excluded other important details that may serve to discredit or take away from the image he intends to foster amongst an audience. In his front, the recently stigmatized individual intentionally presents his experience using a unique tone and manner of speech, indicating the role he or she seeks to play as a participant in the collaborative process. This presentation of self, using reddit as a stage, serves as an exercise in impression management. This post allows the individual to try and influence how others interpret his actions and manage the meaning of his DUI (and thus his newly acquired stigma).

As an audience who receives the presentation of self, other reddit users have the ability to note discrepancies in the DUI narrative, thereby participating in the iterative meaning making process. Also acting anonymously, reddit users who participate in the conversation through comments have the task of determining whether the act was successful and whether or not the DUI offender had an authentic (and truthful) act.

The following questions guide content analyses of reddit DUI narratives.

1. How do impaired drivers respond to DUI arrests?
2. In what ways do DUI offenders practice impression management when describing their DUI experience?
3. How do DUI offenders perceive their own culpability for their unique DUI arrest?

In summary, the existing literature indicates individual level behavioral and cognitive factors are predictive of impaired driving outcomes. In addition to their utility as direct predictors of impaired driving, limited research has examined the role of cognitive and behavioral predictors as mediating the relationship between sociodemographic predictors and impaired driving outcomes. Despite these efforts, existing research has largely been limited by small or non-representative samples.

In the next chapter, I detail the methodological approach used in the following studies. I cover the specific data and measures used, as well as present the analytical plan. In addition, I offer descriptive information about the samples utilized.

CHAPTER III

METHODS

I rely on two distinct data sources that allow me to answer the research questions I have posed. For the first analysis, presented in Chapter 4, I estimate path analyses to predict impaired driving using individual level indicators. The individual level data come from the 2008 wave of the National Survey of Drinking and Driving Attitudes and Behaviors collected by the National Highway Traffic Safety Administration.

Data for the second and third analyses come from reddit, a popular online social forum. On reddit individuals can share a variety of content in the form of text, videos, and web-links. The remainder of this chapter will be dedicated to a discussion of the units of analyses, data sources, indicators, and the analytical approaches utilized.

National Survey of Drinking and Driving Attitudes and Behaviors: 2008

I use the 2008 National Survey of Drinking and Driving Attitudes and Behaviors, sponsored by the National Highway Traffic Safety Administration's Office of Behavioral Safety Research to construct models of individual level factors that lead some to impaired driving. Gallup, Inc. conducted data collection between September and December of 2008. The 2008 version of the National Survey of Drinking and Driving Attitudes and Behaviors is the eighth wave of the surveys, collected periodically since 1991. The mission of the survey is to "measure the current status of attitudes, knowledge, and behavior of the general driving age public with respect to drinking and driving" ([Drew, Royal, Moulton, Peterson, & Haddix, 2010, p. 1](#)).

Researchers at NHTSA use the data to examine trends in impaired driving and to identify important areas of concern that might be addressed in efforts to reduce damages associated with drinking and driving. Gallup, Inc. completed a total of 6,999 telephone interviews, with the vast majority (5,392) from landline phones and the remaining 1,607 from cell phones. Interviews were completed in four regions of the United States: the Northeast, Midwest, South, and West ([Drew et al., 2010](#)).

The sample was constructed using a multi-stage stratified design. First, the population was stratified according to the four Census regions (Northeast, Midwest, South, and West) ([Drew et al., 2010](#)). The second stage involved a system of list-assisted Random Digit Dialing (RDD) based on methods refined by Casady and Lepkowski ([1993](#)). List-assisted RDD capitalizes on a key feature of working residential phone numbers; they tend to be clustered together in banks of consecutive numbers. Researchers randomly selected banks of one hundred consecutive numbers from the total of 10,000 possible four digit combinations attached to known area code and prefix combinations. A single number from each bank is called and if it is determined to be a working residential number, additional consecutive numbers from that bank are screened to determine the utility of the number bank in reaching residential numbers (Casady and Lepkowski 1993). This list-assisted method was used to address issues of inefficiency resulting from true RDD (since roughly only 20% of numbers correspond to working residential landlines). In addition, the list-assisted RDD method reduces issues associated with list- or directory-based sampling frames (higher efficiency but subject to non-coverage concerns). The list-assisted approach uses all working areas codes and prefixes as provided by Telecordia, then attaches all 4-digit suffixes to each combination ([Drew et al., 2010](#)). The combinations are then grouped into banks of 100 numbers, and the list-assisted method restricts the sampling frame to 100-banks in which at least

one of the numbers is listed. As opposed to the expected national average hit rate of true RDD, the list-assisted method is expected to achieve a rate between 50 and 60 percent. The cell phone sample was selected using simple random sampling procedures from each region. The RDD sample was provided by Survey Sampling, Inc. based in Connecticut ([Drew et al., 2010](#)).

The sample was further stratified at the household level. Initial screening ensured the household had an individual aged 16 or older. Next, and based on that household composition and the availability of individuals by age in the house, the household member that was chosen was selected at random based on whoever had the most recent birthday. Given attempts to ensure representation of individuals aged 16 to 24, CATI programming selected that age range at a greater rate than the group aged 25 and up. For the cell phone only group, the respondent who answered the phone was automatically selected if they met the eligibility criteria ([Drew et al., 2010](#)).

To ensure compatibility across years, items in the survey were similar or identical to those used in surveys from previous waves. Interviews were collected with CATI technology, coordinated through Gallup, Inc. CATI systems are optimized to collect high quality data while reducing respondent effort and burden, using an incorporated system of data quality checks throughout the interview process. The random selection process to distribute incentives for cell phone respondents and for the greater representation of 16- to 24-year-olds was programmed through CATI processes ([Drew et al., 2010](#)).

The National Survey of Drinking and Driving Attitudes and Behaviors (2008) achieved an overall response rate of 24.1 percent, with slight differences for landlines (24.4%) and cell phones (23.4) ([Drew et al., 2010](#)). In line with expected hit rates, 65.5 percent of working residential numbers produced a human contact, and 45.1 percent of those with whom contact was

made participated at least through the screening section. The overall refusal rate was 18.8 percent, with notable differences between landline (14.1%) and cell phone (24.6%) users ([Drew et al., 2010](#)).

There are 6,999 respondents in the NSDDAAB. Respondents who reported no alcohol consumption in the previous 12 months (N=2,764) and those who reported not driving (N=540) were removed from the sample⁴. The mean respondent age was just under 47 years old (SD=17.5). Men (48.7%) and women (51.3%) were nearly equally represented in the sample. The sample is majority White (87.4%) and well-educated (75.5% had at least some college experience). The median income was between \$50,000 and \$75,000.

Measures from the NSDDAAB

Dependent Variable

The primary *dependent* variable of interest is self-reported impaired driving. Although several indicators for driving after consuming alcohol are available in the dataset⁵, I rely on a question that asks “About how many times in the PAST TWELVE MONTHS did you drive when you thought you were OVER THE LEGAL LIMIT FOR ALCOHOL AND DRIVING?” The mean number of self-reported impaired driving episodes was 0.56 (SD= 6.47), and responses ranged from none to 300. The vast majority (88.38%) report no impaired driving experiences in the previous 12 months. This indicator was chosen because it resembles commonly used

⁴ Respondents who reported no alcohol consumption were not asked about any of the items pertaining to impaired driving. Individuals who reported a lack of regular driving were dropped as measurement of impaired driving was no longer applicable to these individuals.

⁵ The alternative measure was an item asking “In the past 12 months, have you ever driven a motor vehicle WITHIN TWO HOURS AFTER drinking any alcoholic beverages?” Given the topic of interest, it was decided that this item is not necessarily indicative of impaired driving, but rather *driving after drinking*. The use of this item would likely over-estimate the prevalence of impaired driving. In supplementary analyses, I substitute the impaired driving indicator for the *driving after drinking* indicator to consider implications of different measurement approaches.

measures of DUI, including that utilized by the CDC's Behavioral Risk Factor Surveillance System (BRFSS), which asks respondents "During the past 30 days, how many times have you driven when you've had perhaps too much to drink?"

Independent Variables

I examine multiple independent variables, which serve as both direct and mediating predictors of impaired driving.

Sociodemographic Indicators

At the individual level, the NSDDAAB includes items for multiple sociodemographic indicators. Sex is operationalized as male (49.63%) or female (50.37%). Age is measured as a continuous indicator, ranging from 16 to 88. Bivariate analyses indicate a non-linear relationship between age and impaired driving. Accordingly, age was recoded as a series of dichotomous measures, grouping respondents into categories representing important and theoretically relevant life stages: ages 16 to 20 (underage/illegal drinkers; 4.29%), 21 to 24 (legal and university age drinkers; 8.70%), 25 to 34 (early adulthood; 17.01%), 35 to 54 (middle adulthood; 36.09%), and 55 and older (late adulthood; 33.91%). A recoded measure of race is included in which respondents were classified as White (88.05%), Black (5.78%), or other (including Asian American, Indian, Hawaiian, or multi-racial) (6.17%). I rely on multiple indicators of socioeconomic status (SES), including household income and educational attainment. I generated an income group of less than \$15,000 by combining respondents in the two lowest household income groups (less than \$5,000 and \$5,000 to less than \$15,000) (6.48%). In addition, there were income groups for \$15,000 to less than \$30,000 (11.64%), \$30,000 to less than \$50,000 (19.70%), \$50,000 to less than \$75,000 (22.22%), \$75,000 to less than \$100,000 (15.36%), and

\$100,000 and greater (24.60%). I recoded educational attainment (highest grade or year of school respondent completed) as an ordinal measure with groups with less than a high school education (3.79%), high school graduate or equivalent (included those with a General Equivalency Diploma) (19.69%), some college (28.86%), a four-year degree (24.95%), some graduate school (3.76%), and a graduate degree (18.95%).

Behavioral Predictors

I measured *behavioral predictors* with indicators for monthly alcohol consumption and binge drinking. To calculate responses for monthly alcohol consumption, I rely on responses to an item asking, “On how many of the thirty days in this typical month did you have one or more alcoholic beverages to drink?” An additional indicator asked about the amount of drinks per typical drinking occasion, specifically asking, “When you drink (beverage consumed most often), about how many (drink response) do you usually drink per sitting?” Responses ranged from 0 to 96. Two respondents indicated they drank over 90 drinks per sitting and were recoded into the closest upper limit (30). Respondents who stated that they drank less than one drink per sitting were recoded as 0.5. I calculated a monthly consumption variable by multiplying responses for these two items together. In this case, higher scores were indicative of greater monthly consumption. As nearly 99 percent of calculated response were 120 or below, greater responses were recoded as 120. Binge drinking prevalence was ascertained using an item asking respondents, “On how many days (of typical month they acknowledged drinking) did you have five or more drinks?” The response was dichotomized to reflect binge drinking (1) or no binge drinking (0).

Cognitive Predictors

Cognitive predictors available in the NSDDAAB include risk perception, global attitudes, and social tolerance of DUI. Risk perception is calculated from four similarly worded items. A series of indicators asks, “How likely is it that drivers who have had too much to drink to drive safely will A) Get stopped by the police? B) Have an accident? C) Be convicted for drunk driving? D) Be arrested for drunk driving?” Respondents were asked to indicate their answer in Likert scale responses ranging from 1 (almost certain) to 5 (very unlikely). Responses were recoded so that higher scores represented perceptions of greater risk.

Global Attitudes towards impaired driving were assessed with an item asking, “In your opinion, how much is drinking and driving by other people a threat to the personal safety of you and your family?” and respondents answered as either a major (1) threat, a minor threat (2), or not a threat (3). I recoded responses so that higher scores indicated a greater global disapproval of impaired driving.

Social tolerance of DUI was measured by an item asking “Have you ever been in this type of situation? A situation when you were with a friend, family member, or acquaintance who had too much to drink to drive safely, yet was planning to drive.” Individuals were asked to either respond with a yes or no. Individuals who reported that they did not know or refused were coded as missing. Further, ‘yes’ was coded as 1, while ‘no’ was coded as 0. For the purposes of this study, it is assumed that individuals who answer yes likely have greater social support from their networks regarding drinking and driving.

Table 3.1 Descriptive Statistics for Dependent and Independent Variables from the National Survey of Drinking and Driving Attitudes and Behaviors, 2008

Variable	<i>M</i>	<i>SD</i>	<i>Min</i>	<i>Max</i>
Impaired Driver	.13	.34	0	1
<i>Cognitive</i>				
Tolerant network	.55	.48	0	1
Risk perception	12.72	3.17	4	20
DUI threat	2.73	.50	1	3
<i>Behavioral</i>				
Monthly alcohol consumption	15.55	23.28	.5	120
Binge Drinker	.26	.44	0	1
Variable	<i>N</i>	<i>Percent</i>		
<i>Sociodemographic</i>				
Gender				
Male	1689	49.63		
Female	1714	50.37		
Race				
White	2881	88.05		
Black	189	5.78		
Other	202	6.17		
Age				
16 to 20	146	4.29		
21 to 24	296	8.70		
25 to 34	579	17.01		
35 to 54	1228	36.09		
55 and older	1154	33.91		
Education				
LT high school	129	3.79		
High school	670	19.69		
Some college	982	28.86		
Bachelor degree	849	24.95		
Some graduate	128	3.76		
Graduate degree	645	18.95		
Income				
less than \$15,000	209	6.48		
\$15,000 to \$29,999	375	11.64		

Table 3.1 (continued)

\$30,000 to \$49,999	635	19.70
\$50,000 to \$74,999	716	22.22
\$75,000 to \$99,999	495	15.36
\$100,000 and up	793	24.60

To address limitations of previous studies, my path analysis model uses more current and nationally representative data, more closely resembling the drinking and driving population than previous similar studies. With a more representative sample than used in previous studies, I consider the mediational roles of both cognitive and behavioral predictors on impaired driving.

reddit Analyses

The data come from the popular website reddit, self-described as the “front page of the Internet.” Reddit is a popular online social system where individuals can share a variety of content in the form of text, videos, and web-links. ([Duggan & Smith, 2013](#)). A 2013 report from the Pew Research Center indicated that 6 percent of online adults use reddit, with young men disproportionately represented among users ([Duggan & Smith, 2013](#)). Hispanics and those in urban and suburban areas were more likely to use reddit as opposed to rural areas ([Duggan & Smith, 2013](#)). Recent statistics from Alexa, owned by Amazon.com, indicate reddit is the sixth most popular site in the United States, ranking just behind Google, YouTube, Facebook, Amazon, and Wikipedia (and ahead of Yahoo, Twitter, and eBay) ([Alexa Internet, 2019](#)).

The site has several unique features distinguishing it from other social media and online forum websites. First, the content is organized into ‘subreddits,’ serving as organized communities in which users can either subscribe to or browse to explore content affiliated with a specific topic or area. In addition, reddit has a user-voting system (up-votes and down-votes)

within the subreddits allowing users to influence the prominence and position of specific content on the forum ([De Choudhury & De, 2014](#); [Duggan & Smith, 2013](#)). An additional distinguishing feature, and of theoretical importance, is the relative anonymity afforded users through the allowable use of ‘throwaway accounts.’ Whereas other social media sites are linked to more permanent and discernable identities (Facebook, Twitter, Instagram), the relative anonymity afforded reddit users opens the potential of a different type of ‘self-presentation’ ([Goffman, 1959](#); [Shelton, Lo, & Nardi, 2015](#)), aimed not at established friends and associates, but to a more general and imagined audience.

As a relatively new forum, created in 2005 ([Singer, Flöck, Meinhart, Zeitfogel, & Strohmaier, 2014](#)), reddit content has not been extensively used as source of qualitative data to assess concepts with sociological or cultural relevancy. Given this, a complete absence of studies using data from reddit on impaired driving is unsurprising. De Choudhury and De ([2014](#)) explore the validity of reddit as a forum for mental health discourse. Given the stigma associated with mental illness, the reliance on reddit as a source of self-disclosure and social support under the guise of relative anonymity is particularly interesting. As such, they analyzed content from several mental health subreddits. An analysis of the language indicated that individuals used reddit as a means of self-expression- to talk about the role of mental illness in their own lives. Further, posts often solicited medical advice in the form of either diagnoses or treatment options. Additional analyses indicated that received social support was in part predicted by the manner in which the original user post was constructed. Lastly, analyses on the anonymous nature of users indicated individuals did use a cautious approach with their posts to ensure their identity was protected ([De Choudhury & De, 2014](#)).

Specifically, data come from two distinct subreddits, which represent subcategories into which content are classified. I chose these subreddits after searching for ‘DUI’ and examining content from multiple subreddits returned from the search. Data was first extracted from the subreddit named “dui,” labeled as a space for “Help and discussion regarding DUI/DWI/Wet and Wreckless” (["Help and discussion regarding DUI/DWI/Wet and Wreckless," 2018](#)). The “dui” subreddit has been a community for six years and had 448 subscribers as of March 2018. Additional narratives were collected from the subreddit ‘Legal Advice,’ labeled as “A place to get simple legal advice” (["A place to get simple legal advice," 2018](#)). The ‘legal advice’ subreddit has been a community for 8 years and had nearly 366,000 subscribers as of March 2018. To collect DUI narratives within the larger “legal advice” subreddit, which consists of individual seeking legal advice on a range of topics, several specified searches for ‘dui’ were conducted within the “legal advice” subreddit to limit the results to DUI-related narratives. The first search returned narratives with ‘dui’ in the title, while the second returned those with ‘dui’ in the text of the narrative. In the event these searches returned duplicate entries, I removed one of these from analyses.

I collected DUI narratives and a variety of associated attributes (e.g., usernames, date of submission) using an extracting package PRAW, available in the Python programming language. The use of PRAW allows for an exhaustive collection of data at one specific point in time, with all data being available for offline analyses. I performed the extraction in May of 2018, producing 1,316 unique posts. The extracted data included the username of the author, the title of the post, and the DUI narrative, which details the DUI arrest experience of the user.

I extracted this exhaustive sample from both subreddits and ordered them chronologically, with the most recent posts listed first. To further limit the sample, a series of

exclusionary criteria were developed. From this list of 1,316 posts, narratives were excluded if the DUI story was not referring to the author (i.e., a friend, family member got a DUI) or the impairing substance leading to the DUI was not alcohol. Additional criteria leading to removal from the sample include postings that referred individuals to websites or news media stories related to impaired driving. Lastly, any narrative with 5 or fewer lines of text warranted additional inspection to determine whether or not it contributed to addressing the research questions. In the event it lacked data to address the questions, it was removed from analyses. The final sample contained 626 narratives⁶.

The determination of the optimal sample size varies in relation to several key factors, including the aim of the research and the amount of available time, funding, or personnel ([Smith, 2000](#)). With these concerns in mind, I determined that an exhaustive sample, including all of the narratives which met the criteria, was both possible and optimal. Elo et al. ([2014](#)) offer an additional suggestion regarding optimal sample size; optimal sample size reflects the point at which saturation is reached and additional codes are not generated. Heeding this suggestion, I determined theoretical saturation had been met upon completion of the analyses, and collection of further narratives was unnecessary.

With the narratives pertaining to someone other than the author, about a non-alcohol DUI, or which simply linked to advertisements or DUI related news stories removed, the remaining DUI stories consist of data from individuals who were arrested for alcohol impaired driving. The typical story includes information on one or more of the following: details of the

⁶ An initial final sample was 470 narratives, which was the sample used to collect the systematic sample for pilot coding. Additional narratives were added after completion of the 470, and further review was conducted of narratives that had previously been excluded.

drinking event (e.g., drinking venue, who the offender was with, reason for drinking), perceived level of intoxication (e.g., “pretty smashed” or “I felt fine”), number of drinks consumed prior to driving, and the reason for police contact. Narratives often contain information on recorded blood alcohol content, the field sobriety experience, consequences (e.g., jail time, psychological distress), concerns for how the DUI will influence their future, and solicitation of legal or personal advice.

Analytical Plan

Chapter 4: Assessing the Mediation Effects of Cognitive and Behavioral Predictors

I conducted analyses in multiple stages to address the research questions and test hypotheses. First, I examined variables of interest at the univariate level to gather important descriptive information. Next, I conducted a series of bivariate and multi-variate analyses to explore relationships among the variables and to assist with model building. In these models, the primary outcome variable was a dichotomous self-report DUI indicator. Once bivariate analyses were completed, multiple nested path analyses were estimated using Stata’s GSEM builder. Once I identified an optimal model, I used Stata’s nlcom (nonlinear combinations of estimators) command to calculate coefficients for direct, indirect, and total effects in the model. The nlcom calculates standard errors using the delta method, which assumes normally distributed indirect effects ([StataCorp, 2013](#)). Often, however, indirect effects are positively skewed and kurtotic. Therefore, I bootstrapped the standard errors as an adjustment. This adjustment generated more accurate standard errors to test the effects. Models were estimated using Stata IC 14 ([StataCorp, 2015](#)).

Chapters 5 and 6: reddit Content Analyses

Epistemology

I approach this inquiry using the overarching paradigm of constructivism. Constructivism assumes the existence of multiple realities, socially constructed by individuals or groups of individuals. The goal of inquiry from a constructivist paradigm is to understand and reconstruct the perspectives that individuals offer ([Guba & Lincoln, 1994](#)). Given the often competing constructions generated, there is an assumption that knowledge is not limited to a single researcher's interpretation; rather, similarly competent researchers may also offer equally useful interpretations, stemming from the researchers' own unique social standpoint. From this perspective, knowledge is represented when there is a general consensus about researcher interpretations of the participant constructions.

The constructivist approach assumes knowledge is relative, accumulating over time and developed through a hermeneutical and dialectical process. Applied to impaired driving, the assumption that participant constructions, represented as DUI stories, developed over time through an interpretive and iterative process in which they have observed and considered competing constructions. Current constructions of impaired driving, including the level of risk, the stigmatizing nature of an arrest, their perceptions of control, are assumingly shaped by a continual process of interpretation and re-interpretation. Given multiple realities assumed, my aim as a researcher is to extract these realities from the DUI narratives published on reddit. Posited by Charmaz ([2003](#)), the goal is to construct an "image of *a* reality, not *the* reality" (p. 273, emphasizes in original). In accordance with tenets of symbolic interactionism, the objective is to uncover how participants define their realities and how these definitions inform their actions.

Epistemologically, I believe that the DUI narratives represent an account of the offender's interpretation of their DUI arrest. Because there was no interaction between myself and the participant, I see the narratives as representing the important aspects as seen and felt by the offender. The DUI narrative represents their unsolicited and subjective account of the experience. In many cases, the narratives describe participant drinking behaviors, perceptions of control, emotional states, etc. Despite having no interaction with the offenders, this process of interpretation and knowledge creation is still collaborative in the sense that I, a researcher with prior working knowledge of and experience with impaired driving, undoubtedly introduce an additional source of bias and subjectivity into my analyses and interpretation of the DUI narratives.

Methodology

This inquiry proceeds with the incorporation of the phenomenological position ([Schutz, 1967](#)). Phenomenology grants special importance to the role of language in producing the everyday lived experiences of participants. Constructs and categories, formed from language, facilitate shared knowledge amongst people. Further, noted by Goulding ([2005](#)), the basic assumption is that a person's life is a socially constructed totality in which experiences interrelate in a coherent and meaningful manner. With this in mind, the utilization of phenomenology as a methodology requires data reflecting the views and experiences of the participants. Consistent with methods of content analysis, researcher reflection is an essential part of the process, with participant subjective experiences staying paramount in the analyses. In a phenomenological approach, the researcher carefully examines the text to extract nested meanings, which are ultimately combined and synthesized to produce a more complete description of the phenomenon under study.

Methods

Qualitative Content Analysis

I draw on qualitative content analysis to access DUI offenders' knowledge, attitudes, and beliefs. Qualitative content analysis is defined as “a research method for subjective interpretation of the content of text data through the systematic classification process of coding and identifying themes or patterns ([Hsieh & Shannon, 2005, p. 1278](#)). Further, Schreier ([2012](#)) describes QCA as “a method for systematically describing the meaning of qualitative material” (p.1). Qualitative content analysis is a flexible method in that it allows the use of both inductive and deductive approaches to data analysis ([Elo & Kyngäs, 2008](#)) and is applicable to data from a wide range of sources, including interview transcripts, focus group transcripts, diaries, websites, text from social media sites, newspaper articles, magazines, and images, among others ([Schreier, 2012](#)). Additionally, qualitative content analyses allow the researcher to elucidate both manifest and latent content in the data ([Graneheim & Lundman, 2004](#)). Qualitative content analyses are especially applicable to questions seeking to answer the what, why, and how that are present in the data under study ([Cho & Lee, 2014](#)).

The primary goal of qualitative content analysis is the systematic description of meaning of the material under study. As a systematic method, QCA requires examination of *all* material to determine which parts of the generated coding frame fit. Despite an ability to analyze a range of content, including text and images, QCA remains systematic in part because each analysis involves similar process. Mayring ([2000](#)) provides general procedures for performing qualitative content analysis. Using an inductive approach to the development of categories, Mayring ([2000](#)) offers a six step process that broadly moves from the selection of units of analysis to creating categories before eventually identifying themes. These steps include developing the research

question, selecting the units of analysis, coding of the material to develop emergent inductive codes, revising the codes, final working through of the texts (including reliability checks), and lastly interpreting the results ([Mayring, 2000](#)). Cho and Lee ([2014](#)) offer the following procedures using a study completed for a dissertation as an example of the steps in practice: 1) developing research questions and selecting the units of analysis, 2) line by line open coding, 3) using emergent codes to code additional data, refining codes as needed, 4) grouping similar codes into categories, organized to insure they are mutually exclusive, 5) examining categories for underlying themes. Elo and Kyngäs ([2008](#)) propose a similar inductive process, including the following steps: 1) selecting the unit of analysis, 2) reading through the data to get a sense of the data, 3) open coding, category creation, and abstraction into higher order categories and themes.

Qualitative content analysis is distinct from quantitative content analysis with its emphasis on flexibility. Unlike qualitative content analyses, quantitative content analyses often incorporate established and standardized coding frames as there is an assumption of comparability across material ([Schreier, 2012](#)). Qualitative content analyses are flexible in that they rely on tailored coding frames that are applicable to the unique data under study. This is important to ensure both reliability and validity; in addition to the coding being replicable by another researcher, it must also be an accurate portrayal of the content under study.

QCA is interpretive as a qualitative method. It is most appropriate when it is necessary to interpret meanings. In addition, the interpretive nature of QCA assumes multiple interpretations of the data may be equally valid ([Schreier, 2012](#)). QCA is also considered naturalistic, an unobtrusive method that does not influence data in any way or manipulate the research subjects. Because of this, it is important to be cognizant of the context in which the data was collected. The context helps to ground analyses and aids the researchers with interpretation of the data. In

this sense, QCA shares with other qualitative methods that meaning is context specific ([Schreier, 2012](#)). In addition, QCA is reflexive in that researchers bring their own unique backgrounds and assumptions of the material, which necessarily influences the process.

The expectation of QCA is a combination of both linear and cyclical processes. It is linear as there is a specific sequence that should be followed for each round of analyses. Yet, the interest of increasing reliability and validity of the coding frame and thus analyses requires a cyclical process. The coding frame should receive multiple revisions and the data should be coded using this frame through this process which runs from trial coding to final coding.

Despite the versatility and utility of content analyses, a few limitations are notable. First, common to qualitative techniques, claims to generalizability are limited beyond the scope of the specific context studied ([Krippendorf, 1989](#)). Second, the requirement of replicability, requiring clear, fixed, and defined categories, often leads to ambiguities within analyses and also fails to account for any meanings that may evolve over time (although not applicable to my cross-sectional analysis). A third limitation stems from the role of social theory. In an inductive analysis, where the goal is to move towards some sort of theory building or modification of a theory, issues with generalizability again surface as it is ill advised to claim the findings hold outside of the tested context ([Krippendorf, 1989](#)). In using a deductive approach, however, in which categories are developed in response to an existing theory, the danger comes from missing other unique intricacies present in the data ([Krippendorf, 1989](#)).

Coding Strategy

The text unit subject to analysis are individual DUI narratives, which can be as short as a paragraph or span multiple pages. Each DUI narrative represents a reconstruction of the DUI

arrest from the perspective of the offender, as opposed to the actual experience itself ([K. Charmaz, 2003](#); [Maines, 1993](#)). The coding (or recording) units, referring to the parts of the text to which codes or categories will be applied, are sentences or passages of several connected sentences. Coding of the data was conducted in several stages. Heeding guidelines set by Schreier ([2012](#)), a pilot sample of 73 narratives (roughly 15 percent of the sample; see footnote 5 for additional information) was selected by systematically selecting every 6th narrative from the complete sample. This pilot coding was purely inductive coding, with a combination of both descriptive and in vivo codes (in which the name of the code or category is taken directly from the words of respondents) applied line by line (Glaser and Strauss, 1967). With this approach, categories were allowed to emerge from the data. Noted by Saldaña ([2013](#)), descriptive coding is helpful in generating an inventory of what is contained within the data, while in vivo coding is advantageous through its use of verbatim terms or phrases of the participants. Additionally, line-by-line coding increases the trustworthiness of the analyses as it ensures the data is thoroughly mined and that equal attention is granted to all components in the narrative ([Guba & Lincoln, 1994](#)). Despite this inductive approach, I wish to state that the approach is not *purely* inductive, in which categories emerge without any preconceptions. Rather, coding was directed and guided by sensitizing concepts, a term borrowed from grounded theory. Noted by Charmaz ([2003](#)), sensitizing concepts refer to the “background ideas that inform the overall research problem” (p. 259). Sensitizing concepts serve to organize experiences and serve as starting points for analyses ([Kathy Charmaz et al., 2003](#)). This combination of inductive and more a priori approaches is common in content analyses ([Smith, 2000](#)). With this approach, important codes revealed in a review of the literature are incorporated into analyses, while also allowing for the emergence of other unexpected codes from data which other scholars have yet to explore.

This pilot coding phase generated an initial coding structure. To increase the trustworthiness of the research, several graduate students with experience with qualitative methods coded the same pilot phase sample. Upon completion, a meeting was held to discuss generated coding structures and work through discrepancies, which were minimal. Codes were largely similar, with differences lying primarily in wording as opposed to content or themes. Upon completion of this meeting, the coding structure was refined and modified to use for a second cycle of coding on the pilot sample. Modifications were discussed with the other coders prior to proceeding to a second cycle of coding. With this modified structure, a second cycle of coding was conducted on the pilot sample. Upon completion, additional modifications were made to the coding structure prior to beginning the main phase of analysis.

To increase trustworthiness of the analyses, I was the sole researcher responsible for coding data for final analyses. This approach is especially relevant for qualitative content analyses ([Elo et al., 2014](#)). Despite solely taking responsibility for coding, I incorporated several safeguards throughout the process, consisting primarily of the regular generation of rigorous analytical memos. Analytic memos are useful to document and reflect on the process at large. They represent a space in which the researcher can step back and organize his or her thoughts and further consider and analyze what is taking place in the data. Saldaña ([2013](#)) describes 11 specific topics of reflection in the memos. In no particular order, these include how you personally related to the participants and the phenomena, the study's research questions, code choices and definitions, emerging themes, categories, or patterns, links between the codes, emergent or existing theories, problems with the study, personal and ethical dilemmas with the study, future directions of the study, a review of the memos thus far, and reflections on the final report on the study ([Saldaña, 2013](#)). Upon coding five DUI narratives, I generated an analytic

memo to reflect on these topics, while also being cognizant to have continuous access to the memos in the event of unexpected brainstorming or ideas. In addition, I periodically reviewed the memos to improve codes or identify other patterns or relationships. The memos represented a space to piece it all together, without the formal prose expected in academic writing ([Saldaña, 2013](#)). Utilizing also suggestions from Charmaz ([2003](#)), memos also included raw data from the content, which further help in drawing out patterns and analyzing the properties of the categories that emerge.

Considering my reflexive positioning, subjectivity, and bias in the research process, I acknowledge my experience as an impaired driving scholar for the previous three years, in which I have authored or served as a co-author on multiple peer reviewed publications pertaining to DUI offenders. As a graduate research assistant in a state funded impaired driving intervention effort, I have been active in efforts to identify impaired driving predictors to reduce both first time DUI arrests and reduce DUI recidivism. My experience in this position has allowed me to observe multiple DUI classes serving offenders⁷ and also to collaborate with law enforcement officials, prosecutors, judges, and other DUI researchers. In my experience as an observer in the DUI classes⁸, I was surprised by the general positive emotional atmosphere and the ‘normality’ of the class environment and offenders. Whereas I expected these groups of offenders to appear upset to be there or stricken with feelings of shame, embarrassment, or anger, the reality was quite different. Rather, it was common to observe smiling, laughing, and ordinary dialogue between DUI offenders or between the offenders and instructors.

⁷ A court mandated requirement for individuals convicted of a first offense DUI in Mississippi in order to re-obtain a driver’s license

⁸ The specific class I visited is far from representative of all those throughout the state; it was located in a university town and had a greater percentage of college students.

In addition, my expectation of DUI offenders was challenged; the groups I observed included a diverse collection of men and women, with individuals as young as college age and as old as retirement age, with as little as a high school diploma and as much as a Master's degree. Although I cannot clearly elaborate on what I expected the ideal DUI offender to look like or what I expected their experience to be, I came to wonder if these people were habitual offenders who had finally been caught, or rather a select and unlucky few of the larger population which drives while impaired but just happened to do it at a time or place in which law enforcement were monitoring. Further, it sparked an interest in how people emotionally manage a DUI arrest.

As a White male in my early 30s⁹, I am able to relate to some of the stories and experiences that I heard in the class. Although I have never been arrested for impaired driving, my personal experiences allow for a sense of empathy to the class participants. As someone who occasionally consumes alcohol outside of my residence (e.g., in bars, restaurants), I have found myself in internal dialogue regarding my level of impairment and whether or not I was in an appropriate condition to drive home both safely and within the legal limits as established by the state. Further, I have ridden as a passenger in vehicles with friends and acquaintances who were likely impaired beyond the legal limit and I have strong friendships with several individuals who have DUI arrests.

Outside of these observations and personal relationships, my experience as a DUI researcher has also prompted an attitude of skepticism towards DUI offender narratives. In conversations with current and retired law enforcement officials, I have been privy to numerous stories of DUI arrests in which the offender's self-reported alcohol consumption does not reflect the results from either breathalyzer or field sobriety test results. In addition, footage from dash

⁹ A group noted for a high prevalence of impaired driving

cameras in police vehicles, readily available online or on television, commonly portray an individual who reports having had one or two drinks excessively slurring their speech or miserably failing field sobriety tests such as balancing exercises. Given that impaired driving is illegal, it is likely that deception is commonplace in attempts to avoid suspicion of intoxication or arrest. As someone with an interest in how meanings drive behaviors, I have wondered what a DUI actually means to the offender.

To further expand on knowledge generation from reddit narratives, I wish to explicitly state what I think they represent. Operating from the constructivist paradigm, the DUI stories on reddit represent an individual's unsolicited account of their DUI arrest experience. I rely on the assumption that their construction of the event is based on shared social constructions of impaired driving and the meanings associated with the processes (i.e. control, risk, arrest, stigma), which have been generated through an iterative hermeneutical and dialectical process ([Guba & Lincoln, 1994](#)).

As these represent their unsolicited accounts of the event, it is important to analyze these accounts from two perspectives. First, to grant primary importance to the subjective experience of the offender, it is important to analyze the data at face value, with the assumption that their narratives accurately reflect the details and processes of the DUI arrest and preceding events as they wish to present them. Secondly, however, and based on the concept of impression management, is a necessity to analyze the data with a bit more skepticism. Rather than an unsolicited account of events, one can view the narratives as an exercise in impression management. As such, DUI offenders likely utilize specific strategies in their narratives to present themselves in the way in which they wish to be perceived. As discussed in a previous chapter, the narratives represent an account which includes only the details of the event that

convince the audience of the authenticity of the account- while omitting other relevant details which might discredit their performance.

Data was analyzed using MAXQDA ([VERBI Software, 2017](#)). MAXQDA is a popular software package to assist research researchers with qualitative and mixed methods research. Highly versatile, MAXQDA assists researchers throughout the research process, including collection, organization, and analysis of data. Although I rely strictly on text data for my analyses, MAXQDA allows for analysis of numerous data types, including images and imported data including tweets and online comments ([MAXQDA, 2019](#)).

CHAPTER IV
THE MEDIATING EFFECTS OF COGNITIVE AND BEHAVIORAL INDICATORS:
FINDINGS FROM THE 2008 NATIONAL SURVEY
OF DRINKING AND DRIVING ATTITUDES
AND BEHAVIORS

Existing literature has consistently identified men, youth, and the less-educated as particularly high risk for driving under the influence of alcohol ([Amlung et al., 2016](#); [Flowers et al., 2008](#); [Quinlan et al., 2005](#); [Sloan et al., 2013](#); [Williams, 2006](#)). Motor vehicle deaths have been identified as the leading cause of death among individuals age 3 to 34, with research indicating roughly 40% are linked to alcohol. Given significant declines in DUI since the 1970s, it is clear that research and mitigation efforts have been heavily influential in dissuading impaired driving. Yet, more recent evidence has indicated that declines in DUI have stalled, with human and economic losses linked to DUI still alarmingly high; over 17,000 people are killed each year and over \$50 billion lost annually. Put simply, although the general rates of DUI have declined, it remains a pervasive social problem worthy of additional scholarly inquiry.

As discussed extensively in previous chapters, the identification of high-risk groups, including men and youth, has been supplemented with additional literature examining predictors of impaired driving. Largely, those predictors are classified as behavioral or cognitive. Behavioral predictors commonly include binge drinking or other measures of alcohol consumption, both consistently associated with impaired driving ([Everett et al., 1999](#); [Fairlie et](#)

[al., 2010](#); [Flowers et al., 2008](#); [Grube & Voas, 1996](#); [Sloan et al., 2013](#)). Cognitive predictors include a range of attitudes pertaining to perceptions of risk, normative or moral attitudes regarding DUI, and perceptions of social support of DUI from peer or proximate social networks. Pertinent to inform hypotheses and guide analyses, previous studies on cognitive predictors suggest the association between cognitive predictors and DUI is in the expected direction. Specifically, individuals who express greater moral opposition to DUI, or who endorse more negative normative attitudes of DUI are less likely to drive impaired than are those who hold less negative views ([D. E. Berger & Snortum, 1986](#); [Chan et al., 2010](#); [Marcil et al., 2001](#)). Further, evidence from both quantitative ([Amlung et al., 2016](#); [Grube & Voas, 1996](#); [McCarthy & Pedersen, 2009](#)) and qualitative studies ([Basch et al., 1989](#); [Nygaard et al., 2003](#)) indicates that risk perception is an important predictor, with greater perception of risk associated with less impaired driving. Additionally, individuals who perceive that their social networks are more tolerant or supportive of DUI are at greater risk of driving while impaired ([Amlung et al., 2016](#); [Bingham et al., 2007](#); [Grube & Voas, 1996](#)).

Several clear and consistent themes emerge from this extensive literature. Broadly, specific sub-groups are at greater risk of impaired driving than are others. These include men, youth, and those with less education. Individual level factors including behavioral and cognitive indicators are linked to impaired driving. Yet, I argue that previous studies have been ineffective in connecting these distinct strands of research. This proposition is consistent with a critique specific to impaired driving by Ross ([1984](#)), who argues research on drunk driving has been granted low status among sociologists because of its more applied emphasis and often atheoretical approaches. My argument is also consistent with a more broad critique related to research in general; Blumer ([1986](#)) contends that most research is concerned simply with the

identification of predictors and fails to consider the meanings and mechanisms which drive these associations. To address these limitations, I rely on a nationally representative data from the 2008 wave of the National Survey of Drinking and Driving Attitudes and Behaviors to construct a path analysis with impaired driving as the outcome of interest. In moving beyond simply identifying predictors or high-risk groups, I examine mediation effects of several theoretically relevant behavioral and cognitive. By doing so, I am able to examine the several specific pathways through which the association between sociodemographic groups and impaired driving operates.

Considering the critique by Ross ([1984](#)), I consider these analyses as framed through Akers's ([1990](#)) Social Learning Theory and the Theory of Planned Behavior ([Montaño & Kasprzyk, 2008](#)). Social Learning Theory (SLT) proposes that behavior, whether conforming or deviant, is learned. Social Learning Theory is discussed in more detail in chapter 2, but a brief summary here is warranted. Akers ([1990](#)) argues that behaviors are cued in response to stimuli and the definitions we have developed over time and through interactions with others. Individuals develop varied cognitive schema and definitions through learning processes including differential association, imitation of others, and differential reinforcement. In tying these concepts together, SLT asserts that our definitions that guide behavior are shaped through continued interactions with others; these associations vary in intensity, frequency, and duration. Further, these associations are primarily responsible for differential reinforcement, in which behaviors are either rewarded or sanctioned. When enacting agency, we consider situational contexts with specific stimuli which we associate with socially developed meanings and definitions developed over time. With these in mind, we behave in accordance with previous and anticipated perceptions of rewards and sanctions.

Impaired driving viewed through the lens of Theory of Planned Behavior places greater emphasis on the role of DUI related attitudes that inform intentions and ultimately DUI behaviors. These attitudes are expected to vary in response to a series of external variables including sociodemographic markers. The inclusion of literature linking these sociodemographic markers to alcohol consumption suggest measures of age, gender, education, income, and race represent unique socio-structural locations which may work to indirectly influence impaired driving.

In this chapter, I present findings from quantitative analyses. First, I present descriptive findings from the National Survey of Drinking and Driving Attitudes and Behaviors, including those on impaired driving, cognitive factors, and behavioral factors. After this discussion, I present findings from bivariate analyses. Lastly, I present findings from path analyses, discussing direct, indirect, and total effects.

Descriptive Information

Impaired Driving

When asked about how many times in the past 12 months the individual had driven when they thought they were over the legal limit for alcohol and driving, just under 13 percent (95% CI: 11.9, 14.1) of respondents reported at least one alcohol impaired driving episode. Descriptive information on impaired driving and other indicators is available in Table 3.1.

Sociodemographic Indicators

The majority of respondents were 35 years of age or older. Given the non-linear association between age and impaired driving, age was recoded into five categories. The modal category was for individuals aged 35 to 54 (36.09%), followed by individuals 55 and older

(33.91%), 25 to 34 years old (17.01%), 21 to 24 (8.70%), and 16 to 20 (4.29%). Representation by gender was approximately equal, with women (50.37%) slightly outnumbering men (49.63%) in the sample. The vast majority of respondents were White (88.05%), with Black (5.78%) and Other race (6.17%) individuals less represented. Respondents most frequently reported a household income of greater than \$100,000 (24.60%) followed by those reporting \$50,000 to less than \$75,000 (22.22%), \$30,000 to less than \$50,000 (19.70%), \$75,000 to less than \$100,000 (15.36%), \$15,000 to less than \$30,000 (11.64%), and less than \$15,000 (6.48%). Considering education, over 96 percent of respondents had at least a high school education. Some college was the most frequently reported educational attainment (28.86%), followed by a bachelor's degree (24.95%), high school diploma or equivalent (19.69%), and having a graduate degree (18.95%). Much less frequently reported were having less than a high school diploma (3.79%) or having some graduate school education (3.76%).

Cognitive Factors

Respondents were overwhelmingly opposed to impaired driving. Respondents indicated that impaired driving is threatening to the personal safety of both themselves and their families. Specifically, over three-quarters of respondents indicated that drinking and driving represented a major threat. Just over one-fifth of respondents (22.04%) perceived drinking and driving as a minor threat, while less than 3% felt as though it did not constitute a threat.

Risk perception was measured using a calculated item based on responses to four similarly worded items asking “How likely is it that drivers who have had too much to drink to drive safely will A) *Get stopped by the police?* B) *Have an accident?* C) *Be convicted for drunk driving?* D) *Be arrested for drunk driving?*” Respondents were asked to indicate their answer in Likert scale responses ranging from 1 (almost certain) to 5 (very unlikely). Responses were

recoded so that higher scores represented perceptions of greater risk. For the calculated risk perception scale, the mean score was 12.73 (SD=3.17), with responses ranging from 4 to 20. Social network tolerance was measured with a single item asking respondents whether they had been in a situation where a friend, family member, or acquaintance had too much to drink to drive safely, yet was planning to drive. Nearly 55 percent of respondents answered affirmatively, meaning over half of respondents had been in a situation where some significant other had too much to drink to drive safely yet was planning to drive.

Behavioral Factors

Indicators for the number of days in the previous month in which respondents consumed alcohol and the typical number of drinks per occasion they did drink were combined to calculate a monthly consumption indicator, produced by multiplying the number of drinking days per month times the number of drinks per sitting. This calculated indicator showed that respondents drink an average of 15.55 drinks per month (SD=23.28; range 1 to 120). Regarding binge drinking, just over 26 percent of individuals self-reported at least 1 binge drinking occasion in the previous month, with the remaining individuals classified as non-binge drinkers. I hypothesize that behavioral predictors, measured with these two alcohol consumption items, will have both direct and positive associations with impaired driving and will fully or partially mediate the association between at risk demographic groups and DUI. In other words, although there is a direct and positive association between binge consumption and impaired driving, I hypothesize that a greater likelihood of binge drinking amongst high risk groups partially contributes to their classification as high risk.

Bivariate Analyses

Self-reported Impaired Driving

Approximately thirteen percent of respondents acknowledged at least one episode of self-reported driving while intoxicated in the previous 12 months. Bivariate analyses suggest variation across sociodemographic groups and cognitive and behavioral factors. Males (17.94%) were more likely to report at least one DUI episode than were females (8.05%) ($\chi^2=73.74$; $p\leq.001$). There were also statistically significant bivariate associations by age. Individuals between the ages of 21 and 24 were the most likely to report impaired driving (25.00%), while individuals ages 55 and over were the least likely (6.33%). The differences were statistically significant across age categories ($\chi^2=105.78.43$; $p\leq.001$). Consistent with previous literature, the function of the relationship between age and DUI was nonlinear; nearly 19 percent of underage respondents acknowledged DUI, and the likelihood peaked among individuals aged 21 to 24. It declined to 19 percent among individuals aged 25 to 34 before steadily declining for older age categories. Considering education, each additional level of attainment was associated with a lesser likelihood of impaired driving (with the exception of some college to a graduate degree). Differences in the association between education and impaired driving reached statistical significance ($\chi^2=12.21$; $p\leq.05$). There were no statistically significant differences by race or income at the bivariate level. As a result, further analyses excluded race and income.

Cognitively, there was no significant difference in average risk perception between individuals who acknowledged at least one impaired driving experience (mean=12.58) and those who had not (mean=12.76) ($p=.28$). Individuals who felt that impaired driving was a minor threat were most likely to report a DUI experience in the previous year (22.00%), as compared to those who felt it was a major threat (10.64%) and those who felt it was not a threat at all (3.45%).

These differences were statistically significant ($\chi^2=73.57$; $p\leq.001$). Assessing social network tolerance, individuals who reported having individuals in their close network who had consumed too much alcohol to drive safely yet still considered doing so were more likely to acknowledge impaired driving (17.18%) than those who did not (7.82%), a statistically significant difference ($\chi^2=65.54$; $p\leq.001$).

Shifting to behavioral predictors, both binge drinking and monthly consumption were associated with self-reported impaired driving. First, considering binge drinking, individuals classified as binge drinkers were much more likely to acknowledge an impaired driving episode (30.47%) than were those who were not binge drinkers (6.79%). Further, mean monthly alcohol consumption was much greater among individuals who report impaired driving (mean=32.13) than those who did not (mean=13.08). Both of these differences were statistically significant ($\chi^2=325.78$; $p\leq.001$ / $t=16.68$; $p\leq.001$).

Cognitive Factors by Sociodemographic Groups

Responses for cognitive factors varied across sociodemographic groups. First, I assessed risk perception. Risk perception is a calculated from four similarly worded items asking about the likelihood of an individual who drank too much to drive safely getting stopped by the police, having an accident, being convicted for their DUI, or being arrested. Responses ranged from 4 to 20, with higher scores indicating greater certainty that the individual be subject to the negative sanctions. By gender, there were statistically significant differences noted ($t=2.82$; $p\leq.01$), with women (mean=12.89) perceiving a greater likelihood of an accident or contact with law enforcement after drinking and driving than did men (mean=12.58). There were also statistically significant differences by age ($f=4.61$; $p\leq.001$). Individuals aged 21 to 24 had the greatest perception of risk (mean=13.31), followed by those aged 25 to 34 (mean=12.97), individuals

aged 16 to 20 (mean=12.86), respondents aged 55 and older (mean=12.63), and lastly those aged 35 to 54 (mean=12.56). Bivariate analyses revealed an inverse relationship between risk perception and educational attainment such that the perception of risk associated with driving while impaired decreases with each level of additional education attained ($f= 31.87$; $p\leq.001$). The range spanned from a high of 14.29 for individuals with less than a high school education to 11.90 for those with a graduate degree.

Next, I examined sociodemographic differences among global support for DUI. When examining how threatening respondents felt impaired driving was to themselves or their families, females (79.93%) were more likely to indicate impaired driving represented a major threat than were men (70.81%) ($\chi^2=48.55$; $p<.001$). Men, on the other hand, were more likely to indicate impaired driving represented a minor threat than were women. Examining global support by age, the overwhelming majority of all respondents saw impaired driving as representing a major threat. However, individuals 16 to 20 years of age (80.14%) were most likely to view impaired driving this way, followed by individuals aged 21 to 24 (76.69), 25- to 34-year-olds (76.17%), 35- to 54-year-olds (73.13%), and individuals aged 55 and older (76.52%). Individuals in the oldest age group (55 and older) were most likely to feel as though DUI was not a threat (4.77%), followed by 35- to 54-year-olds (1.79%), 25- to 34-year-olds (1.04%), 21- to 24-year-olds (1.01%), and 16- to 20-year-olds (.68%). These differences by age were statistically significant ($\chi^2=48.05$; $p<.001$). Looking at global support by educational attainment, individuals with less education generally were more likely to view DUI as a major threat than those with more. Individuals with less than a high school education were most likely to indicate it as a major threat (82.72%), while those with a bachelor's degree were least likely (70.20%). The differences in global support by educational attainment were statistically significant ($\chi^2=52.87$; $p<.001$).

When asked about socially tolerant networks, which refer to the perceived approval or disapproval of others regarding impaired driving, there were statistically significant differences across all sociodemographic subgroups with the exception of gender. Examining differences in tolerant networks by age, younger individuals, specifically those aged 21 to 24 (64.86%), were more likely to indicate they had been in a situation where a close contact had consumed too much alcohol to drive safely but was planning to anyway. Respondents 25 to 34 (60.79%) and those 16 to 20 (60.27%) followed closely behind. These differences in tolerant networks were statistically significant ($\chi^2=82.75$; $p<.001$).

Behavioral Factors

Additionally, I conducted analyses at the bivariate level to examine associations between sociodemographic factors and behavioral predictors. Specifically, I ran analyses to test for statistically significant differences in monthly alcohol consumption and binge drinking by gender, age, and educational attainment. First examining monthly consumption, analyses indicate statistically significant differences by gender ($t=13.86$; $p\leq.001$). Self-reported consumption is much higher among men (mean=20.97) than women (mean=10.21). I next examined differences in monthly consumption by age. There was an indirect and statistically significant relationship between age and monthly alcohol consumption, indicating monthly alcohol consumption was highest among individuals aged 16 to 20 (mean=24.30) and lowest among individuals 55 and older (mean=13.08) ($f=16.33$; $p\leq.001$). Examining monthly consumption by educational attainment, average consumption was highest for individuals with less education, specifically for those with a high school degree (mean=17.61). Differences in consumption across educational attainment reached statistical significance ($f=3.56$; $p\leq.01$).

When examining binge drinking across sociodemographic groups, statistically significant differences are noted across gender ($\chi^2=183.23$; $p<.001$), age ($\chi^2=366.27$; $p<.001$), and educational attainment ($\chi^2=61.10$; $p<.001$). Considering gender, men were much more likely to be binge drinkers (36.29%) than were women (15.93%). With age, there was a consistent indirect relationship with binge drinking. Binge drinking was most prevalent among individuals aged 16 to 20 (54.79%), compared to 21- to 24-year-olds (52.03%), 25- to 34-year-olds (38.86%), 35- to 54-year-olds (25.16%), and individuals age 55 and older (10.23%). Lastly, I identified a similar association between binge drinking prevalence and educational attainment, in which binge drinking generally declined with additional education. Binge prevalence was highest among individuals with less than a high school education (38.76%), as compared with respondents with a high school degree (30.45%), some college education (29.63%), a bachelor degree (24.03%), some graduate school (27.34%), and a graduate degree (15.81%).

Individual Level Path Analysis

An individual level path analysis was constructed to test the direct and indirect effects of gender, age, and educational attainment on impaired driving. This model is illustrated in Figure 4.1. I tested multiple indirect effects, with mediating variables including behavioral and cognitive predictors. Behavioral predictors included binge drinking status (yes/no) and an indicator of calculated monthly alcohol consumption. Cognitive predictors included items for risk perception, global support, and socially tolerant networks.

Table 4.2 includes the parameter estimates for direct and indirect effects. There are numerous direct effects linking sociodemographic indicators to impaired driving. Controlling for all other indicators in the model, a direct effect remains statistically significant for individuals

aged 21 to 24 ($b=.42$; $p \leq .05$) and 25 to 34 ($b=.33$; $p \leq .05$), associated with a greater likelihood of impaired driving than the reference group (individuals aged 35 to 54). In contrast, individuals aged 55 and older were less likely to report impaired driving ($b=-.48$; $p \leq .01$). Considering gender, men retained a direct and positive association with impaired driving compared to women ($b=.47$; $p \leq .001$). Controlling for other indicators, there was no direct effect of educational attainment on self-reported impaired driving.

Providing statistical support for their inclusion as mediating variables, each mediating variable, with the exception of risk perception, had a statistically significant relationship with impaired driving, in the theoretically predicted direction. Individuals classified as binge drinkers ($b=1.07$; $p \leq .001$), individuals who reported greater consumption ($b=.01$; $p \leq .001$), and individuals with a network tolerant of impaired driving reported more frequent DUI ($b=.62$; $p \leq .001$) were more likely to report driving impaired than individuals from the respective reference groups. In contrast, perceiving impaired driving as more threatening was associated with a lower likelihood of impaired driving ($b=-.45$; $p \leq .001$).

Indirect Effects

A strength of path analyses is that they allow for an examination of both direct and indirect effects between multiple variables of interest. In figure 4.1, I illustrate the multiple pathways tested. To more clearly illustrate the significant results, Figure 4.2 only the paths reaching statistical significance are colored black. In addition to direct effects from being male, age classification, and educational attainment on impaired driving, I predict that behavioral predictors (measured using drinking behaviors) and cognitive predictors (measured using DUI related attitudes) mediate the association with impaired driving. In addition to the direct effects detailed above, I examined indirect effects from age to self-reported impaired driving. Analysis

indicates two significant indirect effects of age 16 to 20, operating through binge drinking and monthly consumption. Given no direct effect from age 16 to 20 on impaired driving, there is evidence that this relationship is fully mediated through these two indicators. The total effect of age 16 to 20 on impaired driving frequency, representing the sum of the direct affect and indirect effects of age 16 to 20, was 1.24 ($p \leq .001$).

Pathways for individuals aged 21 to 24 were similar, with an additional significant indirect effect of tolerant social networks. In addition to the positive direct effect, there were positive indirect effects operating through binge drinking ($b=1.21$), monthly consumption ($b=.09$), and tolerant social networks ($b=.21$). This pattern is indicative of partial mediation, in which part of the association between this age group and more frequent DUI is operating through variance in the mediating variables. The total effect of being 21 to 24 years old on impaired driving frequency was 1.86 ($p \leq .001$). Given the sum of indirect effects was 1.44, approximately 77 percent of the effect of being 21 to 24 on impaired driving is due to the included mediating variables.

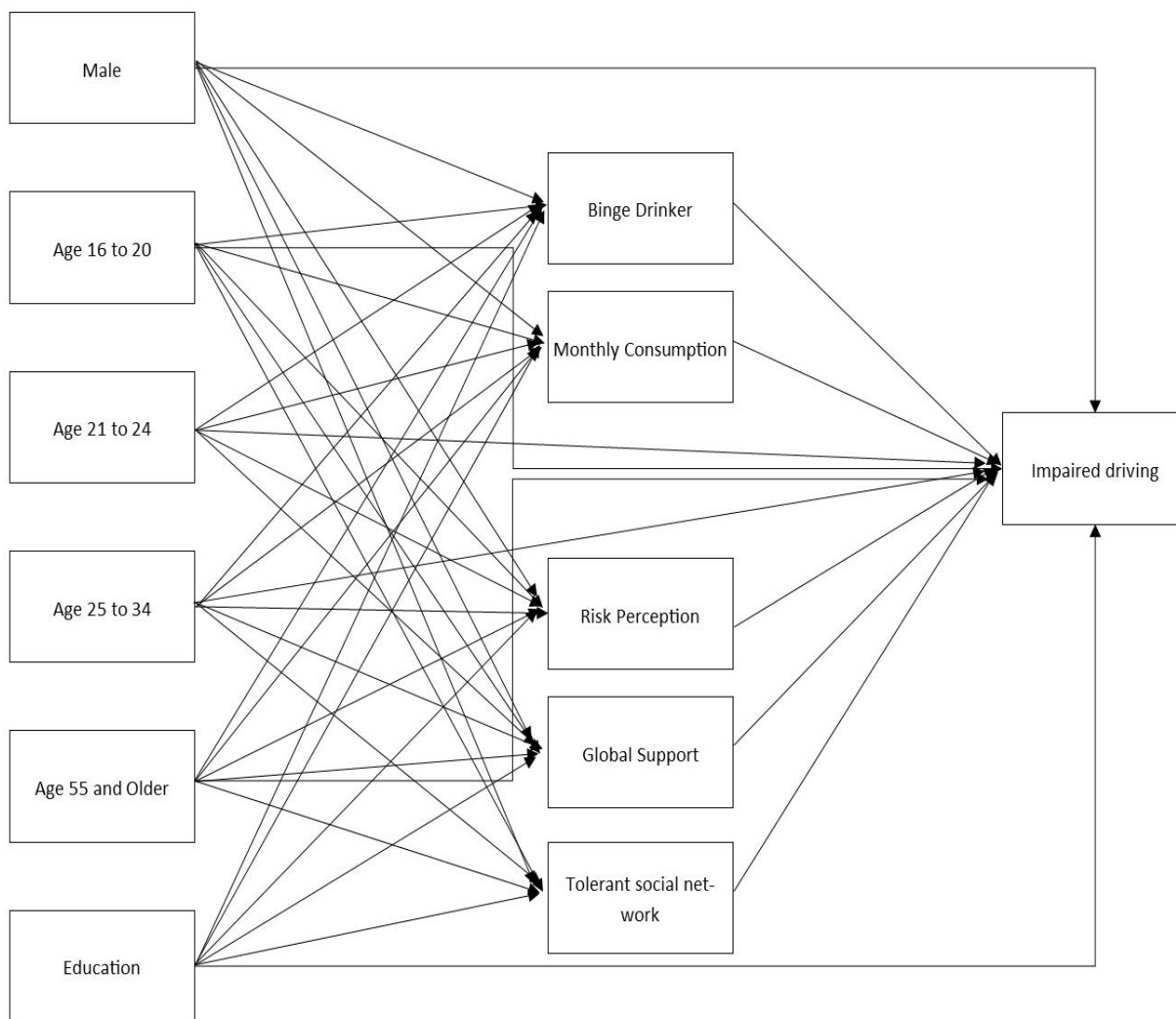


Figure 4.1 Path Analysis Model Predicting Impaired Driving; National Survey of Drinking and Driving Attitudes and Behaviors, 2008

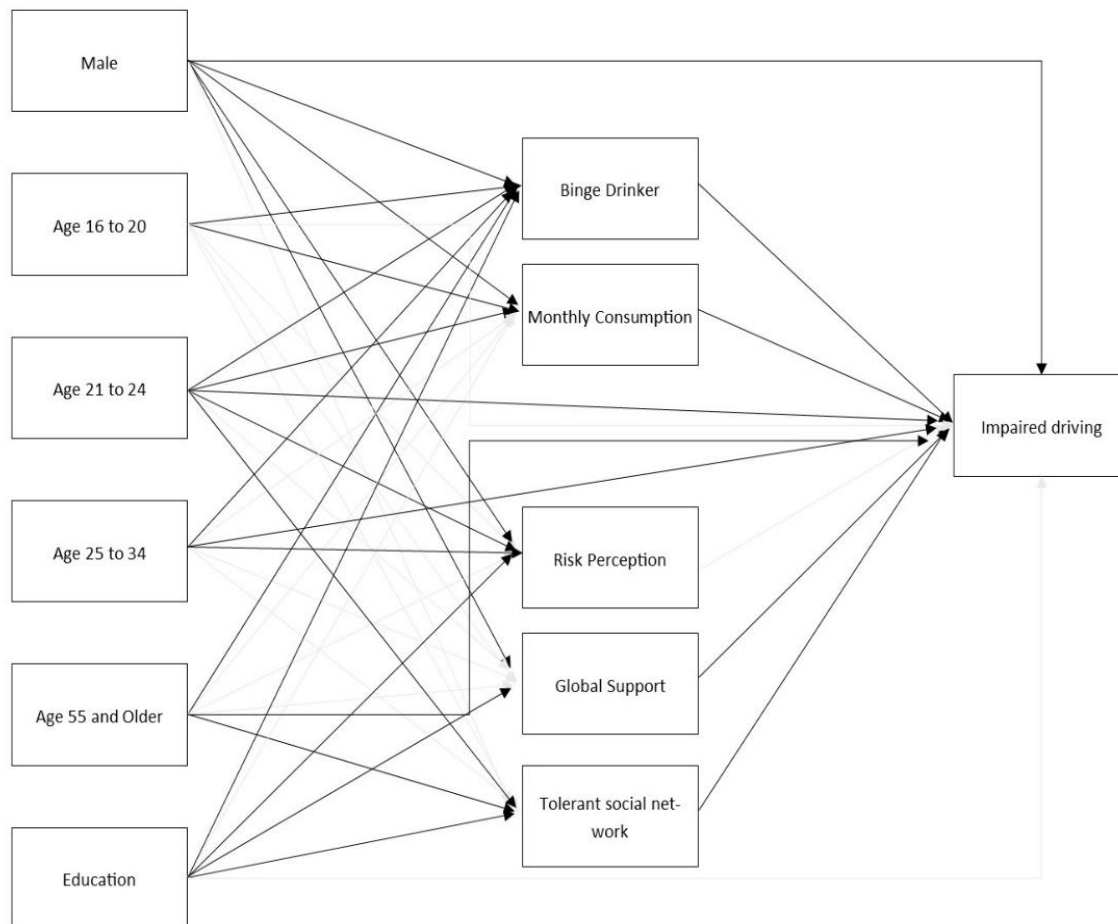


Figure 4.2 Significant Paths in Final Model

Notes: Paths designated with black arrows represent paths reaching statistical significance.

In addition to the positive and direct effect of the 25- to 34-year-old age group on DUI, there is an indirect effect operating through binge drinking. The total effect of this age group on impaired driving was 0.99 ($p \leq .001$), with analyses indicating partial mediation through binge drinking. The sum of indirect effects was 0.66, which indicates approximately 67 percent of the effect of being 25 to 34 on impaired driving is through the mediating effects.

For older adults, classified as those 55 and over, there was a negative and direct effect on impaired driving ($b = -.48$). In addition, the path model offers evidence into several indirect pathways through which this relationship operates. Analyses indicate binge drinking and social network tolerance partially mediated this relationship. In other words, the negative association between older individuals and impaired driving is due in part to the fact that older individuals are less likely to be binge drinkers and are less likely to have close friends or family members who have planned to drive after drinking too much. The total effect of being 55 and older was -2.10 ($p \leq .001$).

Shifting to a consideration of gender, being male was both directly and indirectly linked to impaired driving. Net of the positive direct effect of being male ($b = .47$), the model indicates that an increased likelihood of impaired driving by males is a function of differences in binge drinking ($b = 1.20$), monthly consumption ($b = .12$), and global support of DUI ($b = .22$). The total effect of male on impaired driving was 2.05 ($p \leq .001$), with analyses indicating partial mediation.

An examination of educational attainment indicates no direct effect of education on the likelihood of impaired driving, net of other included variables. Although there was no direct effect, analyses indicate four pathways that fully moderate the association to impaired driving. An overall negative association between education and impaired driving was fully mediated through binge consumption ($b = -.14$), monthly consumption ($b = -.01$), global support ($b = .06$), and supportive networks ($b = .07$).

Table 4.2 Parameters for Individual Level Impaired Driving Model

From	To	Parameter	SE	P
Age 16 to 20	DUI	-.055	.255	.828
Age 21 to 24	DUI	.424	.178	.017
Age 25 to 34	DUI	.328	.147	.026
Age 55 and older	DUI	-.475	.158	.003
Male	DUI	.470	.120	.000
Education	DUI	-.043	.043	.322
Binge Drinker	DUI	1.068	.133	.000
Monthly Consumption	DUI	.012	.002	.000
Risk Perception	DUI	-.009	.018	.631
Global Attitudes	DUI	-.449	.106	.000
Tolerant Social Network	DUI	.638	.122	.000
Male	Binge Drinker	1.119	.088	.000
Age 16 to 20	Binge Drinker	1.094	.191	.000
Age 21 to 24	Binge Drinker	1.129	.141	.000
Age 25 to 34	Binge Drinker	.627	.112	.000
Age 55 and older	Binge Drinker	-1.102	.120	.000
Education	Binge Drinker	-.127	.032	.000
Male	Monthly consumption	10.415	.771	.000
Age 16 to 20	Monthly consumption	7.815	2.011	.000
Age 21 to 24	Monthly consumption	7.225	1.467	.000
Age 25 to 34	Monthly consumption	.807	1.132	.476
Age 55 and older	Monthly consumption	-1.479	.920	.108
Education	Monthly consumption	-.517	.276	.061
Male	Risk of Enforcement	-.371	.106	.000
Age 16 to 20	Risk of Enforcement	-.372	.277	.180
Age 21 to 24	Risk of Enforcement	.443	.202	.028
Age 25 to 34	Risk of Enforcement	.352	.156	.024
Age 55 and older	Risk of Enforcement	.034	.127	.786
Education	Risk of Enforcement	-.454	.038	.000
Male	Global Attitudes	-.496	.081	.000
Age 16 to 20	Global Attitudes	.229	.222	.303
Age 21 to 24	Global Attitudes	.117	.153	.445
Age 25 to 34	Global Attitudes	.158	.117	.176
Age 55 and older	Global Attitudes	.119	.095	.211
Education	Global Attitudes	-.133	.028	.000
Male	Tolerant social network	.057	.070	.419
Age 16 to 20	Tolerant social network	.213	.183	.244
Age 21 to 24	Tolerant social network	.322	.136	.018
Age 25 to 34	Tolerant social network	.089	.103	.390
Age 55 and older	Tolerant social network	-.592	.083	.000
Education	Tolerant social network	.109	.025	.000

Table 4.2 (continued)

From	To	Through	Parameter	SE	P
Age 16 to 20	DUI	Binge Drinker	1.168	.278	.000
Age 16 to 20	DUI	Monthly consumption	.092	.039	.018
Age 16 to 20	DUI	Risk of Enforcement	.003	.007	.641
Age 16 to 20	DUI	Global Attitudes	-.103	.089	.248
Age 16 to 20	DUI	Tolerant social network	.136	.153	.374
Age 21 to 24	DUI	Binge Drinker	1.205	.205	.000
Age 21 to 24	DUI	Monthly consumption	.085	.029	.004
Age 21 to 24	DUI	Risk of Enforcement	-.004	.011	.739
Age 21 to 24	DUI	Global Attitudes	-.053	.066	.424
Age 21 to 24	DUI	Tolerant social network	.206	.089	.022
Age 25 to 34	DUI	Binge Drinker	.669	.152	.000
Age 25 to 34	DUI	Monthly consumption	.010	.017	.564
Age 25 to 34	DUI	Risk of Enforcement	-.003	.007	.669
Age 25 to 34	DUI	Global Attitudes	-.071	.065	.274
Age 25 to 34	DUI	Tolerant social network	.057	.079	.471
Age 55 and older	DUI	Binge Drinker	-1.177	.157	.000
Age 55 and older	DUI	Monthly consumption	-.017	.011	.120
Age 55 and older	DUI	Risk of Enforcement	-.000	.003	.912
Age 55 and older	DUI	Global Attitudes	-.054	.056	.343
Age 55 and older	DUI	Tolerant social network	-.378	.060	.000
Male	DUI	Binge Drinker	1.195	.152	.000
Male	DUI	Monthly consumption	.123	.022	.000
Male	DUI	Risk of Enforcement	.003	.006	.578
Male	DUI	Global Attitudes	.223	.070	.001
Male	DUI	Tolerant social network	.036	.039	.358
Education	DUI	Binge Drinker	-.136	.034	.000
Education	DUI	Monthly consumption	-.006	.003	.045
Education	DUI	Risk of Enforcement	.004	.007	.580
Education	DUI	Global Attitudes	.060	.030	.047
Education	DUI	Tolerant social network	.069	.018	.000
Total Effects					
Variable		Parameter	SE	P	
Age 16 to 20		1.241	.290	.000	
Age 21 to 24		1.863	.360	.000	
Age 25 to 34		.989	.216	.000	
Age 55 and older		-2.101	.166	.000	
Male		2.050	.156	.000	
Education		-.051	.061	.398	

As a brief summary of the table and results from the model discussed above, illustrated in Figure 4.1 and available in Table 4.2, the structural variables, particularly age and gender, are strongly associated with self-reported impaired driving. Men and individuals in the 21 to 24 and 25- to 34-year-old age range reported the greatest likelihood of impaired driving compared to the reference groups (females and individuals aged 35 to 54). Individuals aged 55 and older had a lower likelihood of driving impaired. Estimates also indicate important pathways that drive these associations. For both young adults (21- to 24-year-olds and 25- to 34-year-olds) and men, the greater likelihood of impaired driving was due in part to a greater likelihood of binge drinking among these populations. Less binge drinking amongst older adults (those aged 55 and older) was partially responsible for their lower likelihood of impaired driving as well. Additionally, higher monthly consumption partially explained the increased likelihood of impaired driving among men and legal/university aged individuals (those aged 21 to 24).

These estimates also indicate cognitive predictors play a less prominent role in impaired driving than do behavioral predictors. Examining indirect effects linking both age and gender to impaired driving, only the effects of having a tolerant social network were statistically significant for age, with global attitudes significant for men. Findings indicate part of the increased likelihood of impaired driving among 21- to 24-year-olds is due to this group being more likely to report that they have had individuals in their important proximate social networks who planned to drive after they had too much to drink. The opposite held for individuals age 55 and older, with a lower likelihood of impaired driving partially explained by self-reports of less tolerant social networks. Considering the greater likelihood of impaired driving by men, only global DUI attitudes emerged as a significant indirect effect. This indirect effect was positive,

indicating a portion of the higher likelihood of impaired driving by males was explained by their global assessment of DUI as being less threatening than do females.

Lastly, there was no direct effect of education on impaired driving after controlling for all other indicators in the model. Further, the total effect of education, including all direct and indirect effects of education, was not significant and this is likely the result of contrasting effects of the mediating variables. Analyses indicate both behavioral and cognitive predictors mediate the association between education and impaired driving, and these indirect effects (with the exception of risk perception), were statistically significant. The indirect effects of education on DUI were negative operating through both binge drinking and monthly consumption, suggesting part of any association between the two is because more educated respondents were less likely to report binge drinking and consumed less alcohol. However, the indirect effects of education on DUI, working through global attitudes and tolerant social networks were positive and statistically significant. This indicates that individuals with greater educational attainment were more at risk for DUI in part because they saw impaired driving as less threatening and because their social networks were more tolerant of DUI.

Driving after Drinking

The National Survey of Drinking and Driving Attitudes and Behaviors includes several indicators for drinking and driving. In the main analyses used above, I relied on a self-reported indicator asking respondents about the number of times in the previous twelve months they had driven when they thought they were over the legal limit for alcohol and driving. There are potential limitations of this indicator, as the concept of impairment is itself subjective. As such, it is likely that this indicator underreports impaired driving as defined by law. To illustrate, an individual with a BAC in excess of the common 0.08 BAC limit may not feel as though they are

impaired, and would therefore report that they had not driven impaired. Findings from the content analysis in chapters five and six suggest this is common, as many of the DUI offender narratives had incongruity between an offender's subjective assessment of their impairment and more objective indicators from breathalyzer or blood readings.

As an additional analysis, I estimated an identical path analysis model using an alternative outcome variable. This indicator, which specifically asks 'In the past twelve months, have you ever driven a motor vehicle within two hours after drinking any alcoholic beverages?', is more indicative of driving after drinking than impaired driving (there is a citation for that). However, given established issues with subjective assessments of *impairment*, models with alternative measures might provide additional support for previous models if results are similar. Further, additional questions arise should the models differ substantially.

Results from the alternative path analysis, using driving after drinking as the primary outcome variable, are available in Table 4.3. To easily distinguish differences between this and the previous model (using the subjective measure of impaired driving), the rows and cells have been filled with gray shading if there was a difference in the tests of significance between models. For example, if a coefficient was significant in the previous model and insignificant in the driving after drinking model, it is shaded gray.

Table 4.3 Parameters for Individual Level Driving After Drinking Model

From	To	Parameter	SE	P
Age 16 to 20	Drive after Drinking	-.842	.218	.000
Age 21 to 24	Drive after Drinking	-.153	.146	.293
Age 25 to 34	Drive after Drinking	.068	.110	.533
Age 55 and older	Drive after Drinking	-.180	.092	.050
Male	Drive after Drinking	.541	.078	.000
Education	Drive after Drinking	.172	.028	.000
Male	Binge Drinker	1.128	.088	.000
Age 16 to 20	Binge Drinker	1.085	.191	.000
Age 21 to 24	Binge Drinker	1.145	.140	.000
Age 25 to 34	Binge Drinker	.634	.112	.000
Age 55 and older	Binge Drinker	-1.088	.120	.000
Education	Binge Drinker	-.128	.032	.000
Male	Monthly Consumption	10.584	.774	.000
Age 16 to 20	Monthly Consumption	7.743	2.013	.000
Age 21 to 24	Monthly Consumption	7.591	1.465	.000
Age 25 to 34	Monthly Consumption	.927	1.136	.414
Age 55 and older	Monthly Consumption	-1.463	.925	.114
Education	Monthly Consumption	-.506	.277	.068
Male	Risk of Enforcement	-.380	.106	.000
Age 16 to 20	Risk of Enforcement	-.338	.276	.221
Age 21 to 24	Risk of Enforcement	.440	.201	.029
Age 25 to 34	Risk of Enforcement	.362	.156	.020
Age 55 and older	Risk of Enforcement	.036	.127	.774
Education	Risk of Enforcement	-.452	.037	.000
Male	Global Attitudes	-.502	.081	.000
Age 16 to 20	Global Attitudes	.242	.222	.276
Age 21 to 24	Global Attitudes	.083	.151	.583
Age 25 to 34	Global Attitudes	.168	.117	.150
Age 55 and older	Global Attitudes	.116	.095	.225
Education	Global Attitudes	-.133	.028	.000
Male	Tolerant Social Network	.051	.070	.463
Age 16 to 20	Tolerant Social Network	.196	.182	.283
Age 21 to 24	Tolerant Social Network	.330	.136	.015
Age 25 to 34	Tolerant Social Network	.093	.103	.369
Age 55 and older	Tolerant Social Network	-.586	.083	.000
Education	Tolerant Social Network	.107	.025	.000

Table 4.3 (continued)

From	To	Through	Parameter	SE	P
Age 16 to 20	Drive after Drinking	Binge Drinker	.365	.146	.013
Age 16 to 20	Drive after Drinking	Monthly Consumption	.112	.055	.041
Age 16 to 20	Drive after Drinking	Risk of Enforcement	.024	.020	.234
Age 16 to 20	Drive after Drinking	Global Attitudes	-.109	.082	.183
Age 16 to 20	Drive after Drinking	Tolerant Social Network	.111	.139	.422
Age 21 to 24	Drive after Drinking	Binge Drinker	.385	.148	.010
Age 21 to 24	Drive after Drinking	Monthly Consumption	.110	.030	.000
Age 21 to 24	Drive after Drinking	Risk of Enforcement	-.031	.015	.037
Age 21 to 24	Drive after Drinking	Global Attitudes	-.038	.060	.534
Age 21 to 24	Drive after Drinking	Tolerant Social Network	.188	.068	.006
Age 25 to 34	Drive after Drinking	Binge Drinker	.213	.106	.045
Age 25 to 34	Drive after Drinking	Monthly Consumption	.013	.022	.546
Age 25 to 34	Drive after Drinking	Risk of Enforcement	-.025	.009	.006
Age 25 to 34	Drive after Drinking	Global Attitudes	-.076	.053	.155
Age 25 to 34	Drive after Drinking	Tolerant Social Network	.053	.065	.416
Age 55 and older	Drive after Drinking	Binge Drinker	-.366	.121	.002
Age 55 and older	Drive after Drinking	Monthly Consumption	-.021	.017	.218
Age 55 and older	Drive after Drinking	Risk of Enforcement	-.003	.009	.776
Age 55 and older	Drive after Drinking	Global Attitudes	-.052	.046	.257
Age 55 and older	Drive after Drinking	Tolerant Social Network	-.333	.084	.000
Male	Drive after Drinking	Binge Drinker	.379	.140	.007
Male	Drive after Drinking	Monthly Consumption	.154	.024	.000
Male	Drive after Drinking	Risk of Enforcement	.027	.009	.002
Male	Drive after Drinking	Global Attitudes	.226	.045	.000
Male	Drive after Drinking	Tolerant Social Network	.029	.035	.409
Education	Drive after Drinking	Binge Drinker	-.043	.018	.019
Education	Drive after Drinking	Monthly Consumption	-.007	.005	.118
Education	Drive after Drinking	Risk of Enforcement	.032	.005	.000
Education	Drive after Drinking	Global Attitudes	.060	.017	.001
Education	Drive after Drinking	Tolerant Social Network	.061	.016	.000

Table 4.3 (continued)

Variable	Total Effects		
	Parameter	SE	P
Age 16 to 20	-.339	.227	.136
Age 21 to 24	.461	.230	.045
Age 25 to 34	.246	.164	.134
Age 55 and older	-.955	.141	.000
Male	1.356	.126	.000
Education	.274	.035	.000

As illustrated above, there are numerous differences between models using driving after drinking and impaired driving (available in Table 4.2). Looking first at direct effects, the effect of the 16 to 20 age group is negative and statistically significant for driving after drinking, but not for impaired driving. Next, although the effects of both 21 to 24 and 25- to 34-year-olds are positive and significant in DUI models, they fail to reach statistical significance for driving after drinking. The direct effect between education and driving after drinking was the only other indicator that varied; in the driving after drinking model, the effect was positive and statistically significant, but negative and non-significant in DUI models. Few differences emerged when comparing the indirect effects, with the exception of multiple pathways through risk perception and one path through monthly consumption. In the impaired driving models, none of the indirect effects working through risk perception were statistically significant. In driving after drinking models, however, most indirect effects operating through risk perception were. For individuals age 21 to 24 and 25 to 34, the indirect effect was negative and statistically significant. For the effect of being male and for education, the coefficient for the indirect effect through risk perception was positive and statistically significant in driving after drinking models, but insignificant in DUI models. Lastly, the indirect effect of education on driving after drinking,

operating through monthly consumption, was not significant. In DUI models, the coefficient was negative and statistically significant.

Additionally, there were several differences between models for total effects. In DUI models, the total effect for individuals age 16 to 20 and for those 25 to 34 were positive and statistically significant, indicating these groups were more likely to report impaired driving than the reference group (35- to 54-year-olds). In driving after drinking models, these total effects were insignificant, indicating these individuals were no more likely to report driving after drinking than were the reference group, controlling for all variables in the model. A final difference in total effects between models is present for the effect of education. In DUI models, the total effect of education was not significant. In driving after drinking models, the total effect was positive and reached statistical significance.

Assessing Impairment

The above analyses indicate several conflicting findings on both direct and indirect effects between structural indicators, including gender, age, and educational attainment, on DUI. As previously noted, this illustrates the potential for systematic bias in the event groups differ on how they classify their own impairment. The 2008 wave includes an item that allows for an important additional analysis to consider this. Specifically, respondents were asked to respond to the question “In your opinion, how many drinks (type of drink and the quantity was tailored in response to what drink respondent previously said they drank most often (i.e., *12 ounce beers* or *shots of hard liquor*) could YOU drink in two hours before it would be unsafe for you to drive?”. Responses ranged from 0, representing less than 1, to 60. Given the potential of biasing results, the lone response over 24 (60 drinks) was recoded as 24 (the next highest response). I estimated a series of nested regression models to examine associations between indicators included in

previous analyses and the number of drinks respondents could consume prior to impairment. Model 1 included only structural items, including gender (female is the reference group), age (classified identical to previous models (age 35 to 54 is the reference group) and an ordinal indicator for educational attainment. Binge drinking and monthly alcohol consumption, representing behavioral predictors, were added in Model 2. Model 3 included the structural indicators as well as cognitive predictors, including risk perception, global attitudes, and a measure for tolerant social networks. Lastly, Model 4 was the full model, including structural indicators, behavioral predictors, and cognitive predictors.

Estimates from the models are available in Table 4.4. Findings from the models provide important indications for how subjective assessments of impairment may be systematically biased across a range of predictors. In all models, the effect of being male was associated with anywhere from a 0.70 to a 0.95 increase in the number of drinks the individual could drink prior to it being unsafe to drive, controlling for all other variables. In models 1 and 3, being age 16 to 20 and 25 to 34 had a positive effect on the number of drinks it would take for an individual to become impaired. With the inclusion of behavioral predictors in Models 2 and 4, however, these differences were no longer statistically significant. The effects of both university age individuals (21 to 24) and older adults (55 and older) were significant in all models, albeit in different directions; university age individuals felt as though they could consume more drinks prior to it being unsafe to drive compared to individuals age 35 to 54, while older adults were associated with a lower threshold. The effects of education were only significant in models 1 and 3, but failed to reach statistical significance in models also controlling for behavioral predictors. In models 1 and 3, education had a negative influence on number of drinks an individual could

consume prior to impairment, indicating individuals with less education reported a higher threshold for number of drinks.

Table 4.4 Predictors of Impairment Threshold (Number of Drinks Respondent Can Consume Before it is Unsafe for Them to Drive)

VARIABLES	Model 1	Model 2	Model 3	Model 4
Male	0.946*** (0.0629)	0.711*** (0.0633)	0.917*** (0.0629)	0.699*** (0.0634)
Age 16 to 20	0.463** (0.162)	0.242 (0.159)	0.471** (0.162)	0.260 (0.159)
Age 21 to 24	0.510*** (0.118)	0.296* (0.116)	0.498*** (0.118)	0.297* (0.116)
Age 25 to 34	0.182* (0.0917)	0.110 (0.0896)	0.184* (0.0913)	0.115 (0.0895)
Age 55 and Older	-0.384*** (0.0754)	-0.298*** (0.0740)	-0.351*** (0.0755)	-0.283*** (0.0742)
Education	-0.0519* (0.0226)	-0.0341 (0.0220)	-0.0619** (0.0230)	-0.0404 (0.0225)
Risk Perception			0.00685 (0.0102)	0.00799 (0.00998)
Global Attitudes			-0.296*** (0.0638)	-0.236*** (0.0623)
Tolerant Social Network			0.249*** (0.0638)	0.149* (0.0626)
Binge Drinker		0.464*** (0.0841)		0.440*** (0.0841)
Monthly Consumption		0.0139*** (0.00151)		0.0135*** (0.00151)
Constant	2.346*** (0.106)	2.069*** (0.105)	2.967*** (0.246)	2.562*** (0.241)
Observations	3,311	3,311	3,311	3,311
R-squared	0.095	0.147	0.105	0.152

Standard errors in parentheses

*** p<0.001, ** p<0.01, * p<0.05

When included in Models 2 and 4, both behavioral predictors had a positive effect on self-reported number of drinks before it was unsafe to drive, and both were statistically significant in each model. This finding suggests that individuals who acknowledge binge

drinking and who drink more alcohol have higher subjective impairment thresholds than do non-binge drinkers and those who consume less. Examining the effects of cognitive predictors on subjective impairment assessment, both global attitudes and tolerant social networks were significant predictors in the reduced (Model 3) and full (Model 4) models. For global attitudes, the effect was negative; as individuals perceive DUIs are more threatening, they have a lower subjective impairment threshold. Analyses indicate the opposite for tolerant social networks. Individuals who reported that they had individuals in their social networks who planned to drive impaired felt as though they could consume more alcohol prior to it being unsafe to drive compared to those without a tolerant network.

Conclusion

In this chapter, I estimated a series of analyses to 1) identify the groups at most risk of impaired driving and 2) test the mediating effects of cognitive and behavioral predictors to explain variance in impaired driving. After noting potential issues with the use of subjective impairment as the primary outcome, I ran identical models using an indicator for driving after drinking. Lastly, I estimated a series of nested regression models to examine predictors of subjective impairment threshold, measured by the number of drinks the individual felt they could consume prior to it being unsafe to drive. When considered together, results indicate several specific pathways through which specific groups, namely men and young adults, are at especially high risk for DUI. Behavioral mediators, measured using drinking behaviors, are important indirect pathways that link men and young adults to impaired driving. Findings indicate that men and young adults are at greater risk of impaired driving in part because they both consume more alcohol and are more likely to be binge drinkers compared to females and middle-aged adults. Cognitive protectors, measured with three attitudinal indicators corresponding to risk

perceptions, global support, and social support, also partially mediated associations between high-risk groups and impaired driving. Specifically, men and young adults were more likely to drive impaired because they held attitudes that are more supportive of DUI and had networks that were more tolerant of it.

Yet, further analyses, especially those on subjective impairment thresholds, necessitate further consideration of impaired driving measurement. As is clear from analyses of subjective impairment thresholds, available in table 4.4, the use of subjective measures of impairment is potentially problematic. Given variance in the number of drinks respondents feel they can consume prior to impairment, the use of subjective measures of impaired driving likely introduce a systematic bias into analyses. With this in mind, I estimated identical path models using an indicator for driving after drinking as the primary outcome. The most notable difference in these models was the importance of risk perception, which had insignificant mediational effects in DUI models.

It is important to be mindful of differences in what these two indicators actually measure, because the stories they tell, and their implications, are quite different. Using a subjective measure of impaired driving corresponds to individuals who are willing to acknowledge participation in a deviant, stigmatized, and dangerous behavior. As noted above, and also touched upon in later chapters, is the high likelihood of underestimating impairment. The driving after drinking indicator is a more objective measure but measures a different and potentially safe behavior. The included indicator for driving after drinking, which asks whether the respondent have ever driven a vehicle within two hours after drinking any alcoholic beverage in the last 12 months, does not necessarily infer any impairment or safety hazard. For example, an individual should answer yes if they consume any amount of alcohol and drove within two hours. When

asking individuals who had consumed any alcohol in the previous twelve months about both DUI and driving after drinking, the difference in responses was substantial. Although just under 13 percent acknowledge driving while impaired, nearly 40 percent acknowledge driving after drinking.

CHAPTER V

THE STIGMATIZING NATURE OF A DUI ARREST: USING REDDIT DUI NARRATIVES AS AN APPLICATION OF DIGITAL SOCIOLOGY

In the previous chapter, I presented findings from the 2008 wave of the National Survey of Drinking and Driving Attitudes and Behaviors. Results indicated that just under 13 percent (95% CI: 11.9, 14.1) of respondents acknowledge driving at least once in the previous year when they thought they were likely over the legal limit. Further, when relying on a variable indicating driving after drinking, the percentage of individuals answering affirmatively increases substantially to just over 39%. Estimates from the 2012 Behavioral Risk Factor Surveillance System (BRFSS) indicate roughly 121 million episodes of impaired driving annually ([Jewett, Shults, Banerjee, & Bergen, 2015](#)). Despite these figures, law enforcement does not formally sanction most impaired drivers. Rather, Beitel ([2000](#)) estimates that roughly 1 in 200 drivers with a BAC of 0.10 or higher are actually arrested for impaired driving. Using these estimates from both BRFSS and Beitel, roughly 605,000 of the 121 million episodes of self-reported impaired driving would result in arrests; the difference between these figures, representing the self-reported episodes of impaired driving that do not result in arrests, is nearly 120.4 million¹⁰. Yet, there were more than one million arrests for driving under the influence of alcohol or drugs in

¹⁰ 1 in 200 equates to 0.5%. This figure was multiplied by 121 million to determine the estimated number of arrests. This figure is significantly lower than the FBI arrest estimates; however, the FBI includes arrests for BACs under 0.10 as well as impairment from drugs.

2016 ([FBI, 2016](#)). Only arrests for drug abuse violations, property crimes, other assaults, and larceny were more frequent in 2016 than were impaired driving arrests.

Findings from the previous chapter suggest multiple pathways that make impaired driving more likely. Generally, individuals who drink more, or who self-report binge drinking, are more likely to report impaired driving. Further, individuals that have more tolerant social networks and those who feel as though impaired driving is less threatening are more likely to report impaired driving. Regardless of the reasoning or pathway, a large number of individuals are subject to both formal and informal sanctions associated with a DUI arrest each year. These sanctions commonly include fines in excess of \$10,000, misdemeanor or felony charges, license suspensions, and/or jail time. Informal sanctions include an increased likelihood of divorce, feelings of shame, guilt, anger, and embarrassment.

To further explore post-arrest outcomes for DUI offenders, referring to individuals who not only drive while impaired but were also arrested, I rely on qualitative data from the website reddit. Though only recently being used for social science research ([Cunha, Weber, Haddadi, & Pappa, 2016](#); [Sowles et al., 2018](#); [Wang et al., 2015](#)), recent reports indicate reddit is the sixth most popular website in the United States ([Alexa Internet, 2019](#)). In what I refer to as DUI narratives, DUI offenders publish often detailed accounts of their DUI experience on reddit, most often seeking legal advice or comfort from similarly experienced others. These narratives are unique for several reasons. From a methodological standpoint, the data collection process itself is unobtrusive. As unsolicited data, offenders share the details of the arrest experience that they see as pertinent to the audience. Second, and related, is the relative anonymity reddit affords users. Unlike other forms of social media, including Facebook, in which ones permanent identity is associated with ones account, reddit allows users to operate and publish with relative anonymity.

As such, it represents an ideal space for individuals to share details of the experience of their own *deviant* and illegal act with minimal risk of further blemishing their identity.

I wish to offer a brief discussion on the parallels between my methodological approach and other notable sociological studies of deviance relying on anonymity of the researcher. Most notable is Humphreys's (2006) *Tearoom Trade*. In *Tearoom Trade*, Humphreys (2006) maintained anonymity and utilized deception within multiple contexts. While observing men having sex with other men in public bathrooms, Humphreys (2006) recorded participants' license plate information to later access the home addresses of the men he observed. With these addresses, Humphreys (2006) conducted interviews in physical disguise to protect his own identity. Throughout the study, these deceptive methods risked the exposure of respondents' identities and deviant behavior, undertaken without their knowledge and/or consent.

In other studies, conducted within semi-public spaces and online, researchers have maintained anonymity in their data collection strategies (Lamb, 1998; Ronai & Ellis, 1989; Tewksbury, 2002) used participant observation data from two gay bathhouses in a Midwestern city. This approach allowed Tewksbury (2002) to identify and observe interactional norms of these bathhouses "as they really are" (p. 84), avoiding both response bias and respondent selection. In his study of online chat rooms tailored to gay and bisexual youth, Lamb (1998) shed his researcher identity in his online interactions and instead assumed multiple online identities to collect data more efficiently. Over the 12 month duration of the study, Lamb (1998) posed as a teenage male who identified as bisexual, having contact with approximately 1000 user screen names. Lamb (1998) used the approach to identify common 'individuals' found in the chatrooms including browsers (individuals searching for similar others or people with common interests), cruisers (often presenting as older and more interested in soliciting sex), and pornographers

(requesting or seeking to trade pornography). Lastly, Ronai and Ellis (1989) used data from participant observation from employment as an exotic dancer to examine intimate exchange, interaction, and social dynamics in a strip club. Ronai (1989), who was the dancer, maintained anonymity to other dancers and only occasionally revealed her role as researcher to customers. Given the goal of understanding intimate exchange, Ronai and Ellis (1989) argue this method was the best approach to obtaining data. This covert data was later triangulated with data from a series of interviews with dancers, customers, bar managers, club owners, and a law enforcement officer.

Sociologists have disagreed on the utility and acceptability of deception in research. While some have taken a firm stance that deception is unethical (Erikson, 1967), others contend that deception and covert tactics are valuable to secure data for the advancement of knowledge. In particular, researchers have argued that deception is especially beneficial for data collection within remote or closed spaces of social life including those that are criminal or deviant in nature (Goode, 1996). Other cases may actually *necessitate* deception (Goode, 1996).

There are several similarities between my study and those discussed above. First and foremost is the fact that participants were not aware they were being studied. Because of this, the potential influential presence of the researcher was minimized to the greatest extent possible. Secondly, the behaviors under study are either illegal or socially stigmatized. Despite these similarities, my study differs from the previously discussed on a few key dimensions. In my study, I had no physical observations of or interaction with participants. I never entered into the private sphere of DUI offenders; I chose to gather only data available in the public sphere. This important distinction leads directly to a second key difference. Whereas direct observational data and interaction places respondents at risk of being exposed or outed without their consent or

knowledge they are being studied, any potential risk of being outed was taken by DUI offenders with their voluntary public posting on reddit. The data analyzed and presented in my findings is identical to that available to anyone with internet access and any threat to offender identity results from his or her own shared detail.

In the next two chapters, I present findings from an extensive qualitative content analysis performed on over 600 DUI narratives. Four primary themes emerged from reddit DUI narratives. These include concerns or fear of the consequences, seeking assistance, emotional response, and accountability or responsibility for the arrest or the consequences stemming from the arrest. In the current chapter, I first present basic descriptive information available from the narratives. Then, I present findings from two of the prevalent themes, including fear of consequences and negative emotional response.

Descriptive Information

References to basic descriptive information on offenders and information pertaining to the arrest experience are often included in DUI narratives. Regularly included are offender age, offense number (e.g., 1st or 2nd offense), the state where the DUI occurred, when the offense occurred, a reason for drinking, drinking location, the amount of alcohol consumed, and offender blood alcohol content. Gender was coded when included, although referenced sparingly. Given the exploratory nature of these analyses, as well as the novelty in using reddit data to examine impaired driving, this descriptive information is equally important for considering who is most likely to turn to digital forums to seek advice and information after DUI arrests. I discuss these pertinent sample details in the following section.

First, regarding offense locations, DUI narratives came from 44 states and included residents of Canada and Washington DC. States without representation included Arkansas,

Delaware, Montana, Nebraska, North Dakota, and Rhode Island. California was the most represented, followed by Pennsylvania and Illinois.

Offenders did not commonly reference their age or gender. Those who do reference their age, however, suggest that the individuals who turn to reddit are overwhelmingly young, with most under the age of 25. There were exceptions, however, with offenders as old as 63. Of narratives that referenced offender gender, male and female representation was roughly even. However, the vast majority of narratives did not mention gender and caution is warranted in assuming the actual gender composition of narrative authors is roughly equal. This is because references to being female were often used in conjunction with other information to convey innocence or naivety, as shown in the following passages from offenders in Michigan and Tennessee: “I’m female, 125 pounds, and white so suffice to say I am a bit of a lightweight.” A female Tennessee offender similarly represents this: “I am a smallish 21-year-old white girl, never been in trouble.” Given women process alcohol differently and generally require fewer alcoholic drinks prior to reaching the legal blood alcohol content limit, reference to gender is likely more common for women as a means of challenging their blood alcohol content. Thus, it is likely that rather than the equal composition by gender actually being representative of narrative authors, the strategic use of gender by women is responsible for equal representation of those which specifically mention it.

Information in the narratives also regularly provides information on the offense number, referring to whether or not the author is a first time or multiple offender. Analyses indicate the sample primarily consist of first-time offenders. Drinking location, reason for drinking, and alcohol intake are included as descriptive information from narratives. In coding drinking location, the establishment or location in which offenders stated that they had been drinking prior

to their DUI arrest was coded. Most commonly, offenders were arrested for impaired driving after consuming at drinking establishments including bars or clubs, while less commonly from places including restaurants or casinos. Arrests after leaving social events such as concerts, weddings, or house parties were also common. Occasionally, offenders reported drinking at their own home prior to their DUI arrest. Often discussed in relation to the drinking location, offenders cited some specific reason for drinking. The most often referenced reasons for drinking was simply meeting up with friends, whether just to spend time together or also commonly to celebrate birthdays, anniversaries, accomplishments anniversaries or holidays. Previous studies, as well as path analyses in the previous chapter, identified tolerant social networks as a predictive factor of impaired driving. The drinking locations identified above indicate alcohol consumption preceding the DUI arrest is often part of some social event. In some narratives, offenders stated their friends were able to confirm their own sobriety or lack of impairment. These findings supplement literature identifying the important predictive effects of the perceptions of close social networks. Several offenders explicitly mentioned the use of alcohol as a coping mechanism for psychological distress, including depression or excessive stress, but this was less common.

In previous chapters, I argue that behavioral predictors, specifically drinking behaviors, are an important predictor of impaired driving. DUI narratives provide further evidence of this predictive effect, supplementing previous literature and findings from analyses in the previous chapter. A necessary component of an alcohol impaired driving arrest, offenders often mention the amount of alcohol or number of drinks they consumed prior to their arrest. There are several important distinctions in how people report their alcohol intake. Some offenders clearly state the exact number, and often type of drink they consumed, regularly reporting the duration of time

over which the drinks were consumed (or the amount of time which had passed from their last drink). In some cases, such as in the following passages, offenders reported extensive drinking prior to their arrest: California offender, who blew a .20 BAC: “I am 5’10”, I weigh 185 pounds. Had seven drinks, usually drink about 15.” College student offender, no state listed: “It was about 11 when I arrived (a friend’s party) and I brought an 18 pack with me and set it down. I believe I drank around 11 or so of them and the rest were given away.”

In other cases, offenders use narratives to infer minimal consumption by citing the exact number of drinks consumed. Offender commonly used inferences of minimal consumption to call into question an illegal Blood Alcohol Content (BAC) reading. This is evident in the narrative from a woman in Colorado:

Now my blood came back as a .217! Is this at all possible? Has anybody had this happen? I had three 8 ounce glasses of red wine over a couple of hours, I’m a 150-pound female. I’m not a heavy drinker, more of a weekend drinker with friends but even then five beers and I’m ready for bed. A .217 on one would make me sick and pass out.

In this narrative, the reference to three drinks, consumed over the course of several hours, is used in combination with other factors including gender, physical stature, and previous habits of consumption to challenge a high BAC reading. In doing so, the offender is encouraging the audience to challenge the legitimacy of her impairment and arrest.

More common, however, are vague descriptors of alcohol intake. Rather than explicitly state the number of drinks they consumed, some offenders stated their level of intoxication, such as “pretty smashed” or “got shitfaced for the night.” In other cases, this indication was reported as “one too many” or “I was pulled over after drinking too much.” In these cases, there is an acknowledgment that consumption exceeded the legal limit. More common, however, was the

use of more ambiguous leading words when describing consumption. Rather than stating specifically the number of drinks consumed, thus giving the audience a precise glimpse into the offender's role in the arrest, inexact terms such as *a few*, *about*, *a couple*, *some more*, *probably had*, *several*, and *a little bit* were used when describing consumption. An Ohio offender, arrested upon leaving a concert after blowing a .214 into the breathalyzer: "We got to the concert and I had a few shots and beers." A New York offender uses similarly imprecise descriptors when referring to their intake, also arrested after leaving a concert: "I drank a little bit of vodka before the show and had maybe one, one and a half beers in the show followed by a shot or two of the same vodka after the show two hours before the arrest." In narratives such as these, the use of vague terminology is an act of deception and one of several strategies of impression management offenders use. Relying on a BAC estimator provided by NHTSA¹¹, a .214 BAC is consistent with the consumption of roughly 11 drinks ([Progressive Casualty Insurance Company, 2019](#)). The use of vague descriptors represents an attempt to portray a lack of culpability for the arrest, eliciting a more favorable response from the audience. In common goals of seeking some sort of leniency, inferring that only "a few" drinks were consumed is a more favorable admission than "I had 10."

Offenders also often mentioned a specific reason they encountered law-enforcement officers. Perhaps not surprising given the impairing nature of alcohol, traffic accidents were the most common cause of police contact. Within this code, offenders discuss their accidents in a variety of ways. Although some offenders simply stated they had an accident (i.e., "unfortunately, I ended up totaling my car after a stupid decision to drink and drive"), most incorporate specific strategies which deflect responsibility from the offender. These offenders often cited fatigue, as opposed to the effects of alcohol, or blame other individuals or factors for

¹¹ Calculated for a 180 lb. male, consumed over a 2-hour duration

the accident. In citing fatigue as the causal factor in their accident, an offender writes: “I went to a friend’s house and had a few beers. On my way home I fell asleep and hit a guardrail.”

Similarly, an offender whose blood test revealed a .25 BAC (over 3 times the legal limit), stated: “I got tired behind the wheel and hit a tree and totaled my car.”

In blaming other extraneous factors, offenders regularly mentioned other less capable drivers. Despite registering a .12 BAC after the accident, a California offender reports on his competent driving before blaming another driver:

Although I was driving normally, I was in a crowded street and a white hatchback type car in the left lane swerved and drove crazily and would’ve hit me if I didn’t swerve into the right lane. I managed to avoid the car but another driver in the right lane rear ended me when I moved into the right lane.

Another California offender, who reports this was their second DUI, and reports that they were over the legal alcohol limit, also blames another driver for their accident: “Oncoming car was riding the line a little bit so I moved over. Car did a jerk swerve in and out of my lane. I swerved out of panic and straight into a pole.”

Yet other times, the extraneous factor causing the accident is not another incompetent driver, but rather animals or the road itself. A first offender from Ohio, reporting consumption of five IPA beers (which they admit is stronger than normal beer), places the blame of the accident on an animal:

On my way home I had an animal (raccoon I believe) run out in front of my car and I went to swerve around it but swerved too much and went off the road and hit someone’s mailbox that then tore off my oil pan of my car so my car was done for. While sitting calling my dad to tell him what just happened and that I was going to call a tow truck, a cop pulled up of course.

A first time offender from New York, who blew a .08:

Recently went out on a date, had one drink, felt completely fine. Was in an unfamiliar area and got lost on the way back. Went to merge to a different lane but it was dark and I didn't realize there was a narrow curb separating them. Blew a tire and got stuck.

In discussing accidents, offenders again actively manage their presentation of self, carefully including information intended to minimize any role that the impairing effects of alcohol may have played. Despite the narrative also often including objective evidence of impairment, as noted by a BAC in excess of the legal limit, offenders blame accidents on other factors.

The next most common reason for police contact involves some sort of traffic violation, often some minor violation such as failing to completely stop at a stop sign, having headlights off, speeding, not wearing a seatbelt, making an illegal U-turn, not using a turn signal, or running a red light. In other cases, offenders reported major violations such as driving in the wrong direction on a one-way street or even the highway. The most commonly reported traffic violation, often contested by offenders, was swerving or a failure to maintain lanes. An 18-year-old offender from Arizona, who took prescription benzodiazepines over five hours earlier and had two shots (although she said she threw them up), described her driving: "I got pulled over for swerving because of texting and driving, but the officer thought I was under the influence."

A first offender in Minnesota, who registered a .15 BAC, offered a similar explanation: "Got pulled over as I was trying to put a song on the stereo. The officer said I was bumping the lanes which I'm sure I was because I was staring at the stereo."

Other offenders mention some sort of vehicle malfunction or issue which caught police attention, leading to the arrest. These malfunctions most commonly included taillights being out

but also regularly referenced expired tags, flat tires, or turn signals not working. There were several additional reasons why offenders encountered law-enforcement. A 21-year-old college student in North Carolina mentions how she encountered law-enforcement, and this was not a unique story:

So the other day after a night of drinking I decided to drive home, but quickly realized no more than a mile down the road that I was unfit to drive. After pulling into an apartment complex, I got out of the car to throw up a little more and faintly remember staying out there to sleep it off. The next thing I know, four or five cop cars are behind me and one of them is giving me a sobriety test.

Similar to the previous narrative, the decision to ‘sleep it off’ after realizing they were unfit to drive is used as an attempt to show adequate judgment and responsibility, despite having already driven some distance while impaired. This is also evident in the narrative from a first offender, who also reports his recollection of the night is “pretty blurry” until the arrest: “I got pretty smashed and didn’t feel comfortable driving home. So I slept in my car on the side of the road and woke up to being arrested.” Other reported reasons for contact with law-enforcement included police checkpoints or other individuals reporting some sort of deviant behaviors (loud arguing, suspicious driving).

Offenders regularly include some reference to when the arrest occurred. The narratives typically represent arrests that have occurred within several months of the post, but most commonly within a few days, even the day after the arrest. Also commonly included our references to blood alcohol content. BAC reports were sub coded in the categories representing under .08, .08 to .10, .11 to .15, .16 to .19, and .20 and greater. The modal category was .11 to

.15, with the next two categories nearly equally likely (.08 to .10, and .16 to .19). Over 20 offenders reported a BAC of .20 or greater, with one offender registering a .35.

Narrative Themes

It is best to discuss themes emerging from the narratives together, as they are often interrelated within posts. In discussing their DUI arrest experience, offenders regularly mention fears or concerns regarding the consequences of their arrest. In addition, there are often accompanying descriptions of their emotional response, largely negative and reflective of the receipt of a stigmatizing arrest. The remainder of this chapter details these two themes, elaborating on the specific fears and consequences and the accompanying emotional response. Before this discussion, however, I will briefly summarize the works of foundational symbolic interactionist thinkers that I use to frame the findings.

Meaning takes a prominent role in early symbolic interactionism literature. Noted by Blumer (1986), individuals formulate their actions in response to the meanings they attach to objects around them. Further, both Blumer (1986) and Mead (1934) contend that meanings are social in nature, developed through interactions with others and through socialization. Rather than being fixed, continued interactions with others and with the self, through symbols and language, allow for the modification and re-interpretation of meanings. In further discussing the self, Mead (1934) purports that individuals are able to take on the attitudes of those he interacts with and makes meaning with, allowing him to see himself how he perceives others see him.

Related, and key to the presentation of findings in this chapter, is Goffman's (1986) discussion of stigma. In defining stigma, Goffman (1986) discusses less than desirable attributes that individuals possess, often associated with being weak, dangerous, or bad. The stigma represents some sort of discrepancy between the individuals' actual identity and the person

society thinks they should be. One of the many stigmas Goffman (1986) discusses are “blemishes of individual character,” largely represented by abnormal behavioral or attitudinal characteristics (p.4). Because an individual possesses some sort of undesirable stigma, the person receives some form of social discrimination. As stigmatization comes from social processes, the stigmatized individual is aware of their transgression and the discrepancy between who they are and who society expects them to be. Because of this discrepancy, the stigmatized individual commonly feels a sense of shame and attempts to rectify their stigma. Although these efforts are generally not completely successful, individuals attempt to restructure meanings to grant recognition that the individual has tried to remedy the stigma. Goffman (1986) notes the common response of anxiety in response to stigma, and the tendency of the stigmatized to seek company of similar individuals.

In introducing findings from this chapter, I argue that the receipt of a DUI represents a stigma, a ‘blemish of individual character.’ Through socialization and the development of the generalized other, individuals are aware of how others perceive stigmatized DUI offenders, and must learn to try to re-identify themselves. In turning to reddit, they seek input from a similarly stigmatized group of individuals to seek advice but also to begin or continue the process of repairing identity work. With an understanding that the stigma has the potential to exclude him from full participation in society, offenders express an accompanying range of negative emotions.

Fear of Consequences

According to Goffman (1986), stigmas are damaging in part because their receipt commonly conveys that the individual should be excluded from full participation in some area of social life. DUI narrative commonly include references to some form of anticipated social

discrimination. Offenders clearly and often expressed their concerns of how their lives will be affected by the receipt of a DUI arrest. Offenders express their anxieties and fears in general terms, such as how the DUI would likely ruin their life or their future, but they also mentioned more specific consequences including employment, the loss of driving privileges, jail, financial burden, travel restrictions, or concerns that others would learn of their arrest.

The most common concern was how the DUI would influence the offenders' employment or educational pursuits. Some offenders were fearful of losing their job because the anticipated loss of their driver's license would disqualify them from driving, a primary component of their job. A multiple offender in New Jersey, who recently acquired their second DUI charge, writes: "Feeling so stupid right now. And worried. I drive for my job. I'm an alarm technician so being able to get from call to call is rather important, and I'm afraid with the impending suspension that my job is in jeopardy." More common were general concerns of how a DUI would influence their current job, or how it would negatively influence what they sought to do in the future. A recent offender who blew twice the legal limit, stopped after leaving a bar after celebrating passing a difficult exam:

I haven't studied or haven't been to class since and I'm telling myself why even go through school anymore if no one will hire you after the misdemeanor. I haven't been officially convicted yet but I'm scared I will lose my job and I will not be accepted into my nursing program after the semester.

Another offender, a couple months removed from their arrest, echoed a similar concern:

Either want to go into social work or education, and while I'm trying my best to put this DUI behind me and work harder to try and achieve what I want, I can't help but feel anxious about not being able to succeed in the ways I want to because of this DUI

arrest/suspension being on my record, especially because of how competitive the job market is and the fact that those in social work and education are probably held to a higher moral standard.

Speaking in regards to their current employment and future options, a first time Maryland offender states:

I work with the federal contractor and have a public trust clearance. I am worried that, if I am convicted with a DWI/DUI and do not have my conviction mitigated, I will need to disclose my conviction to my employer and subsequently face termination and revocation of my current and future options for security clearance.

A passage from an offender in Ohio, who registered just under a .20 BAC, is reflective of passages expressing employment concerns: “This is my first offense, first time being arrested. I’m newly graduated from college and right now I feel like I fucked up my entire life. How the hell am I going to get a decent job with a felony on me?”

In addition to concerns with employment, offenders often expressed an unease with the expected financial burden of the DUI. When expressing fear about how the DUI would impact them financially, offenders often mentioned anticipated increases in insurance rates (“I even read that insurance rates can quadruple”), or difficulties with affording an attorney (“I’m broke so getting a lawyer would be difficult, if not impossible, for me”). Other times, offenders seemed overwhelmed with the totality of expenses they anticipated. An Alabama second time offender states: “I’ve been trying to save money for the upcoming court since I don’t know what kind of money I am going to have to shell out, and this also worries me, as I am barely scraping by as it is.” An offender who did not specify their state lists the sources of high fees: “Anyway, my lawyer was super expensive, over 10K, court costs and fines \$575, Chemical assessment (that

was completely pointless I found out) \$220, eight-hour class is \$400. Getting a DUI is expensive. So expensive.”

The DUI offender stigma also carries with it reduced autonomy, of which individuals seem well aware and concerned with. Reflective of a loss of autonomy, offenders regularly mentioned the loss of driver’s license and the potential for jail time. Offenders often discussed the need or desire to drive in general, but more commonly mentioned how a loss of driving privileges would hinder their ability to commute to and from their job. A 20-year-old first time offender from New York discusses the negative impact a suspension of driving privileges would have. After also referencing anxiety regarding DUI lawyer fees, they state: “Also live fairly far from work and the suspension would cripple me.” A first-time offender from Colorado also includes similar concerns: “I’m dependent on my job here and have a 45-minute drive to work. I can’t lose my ability to drive and I have no family nor anyone who can help me make that drive if I lose my license.”

The possibility of jail was a paramount concern for other offenders. A first time offender from Ohio, who registered a .15 after driving following consumption of five rum and Cokes, discusses his fear of an extended jail sentence after researching DUI penalties:

When I was reading the maximum jail sentence for DUI in my state it said three days to six months. I can deal with three days, even a few weeks, but I am so terrified of spending 6 MONTHS in jail. I have a girlfriend and I have three children. It would devastate me to be gone from them for such a long period of time.

Another offender, who registered a .12 while in his or her own driveway, mentions jail: “My anxiety is through the roof. My lawyer says I’m going to have to speak for myself a little bit to

the judge?... And also there is the possibility of jail time (3 to 10 days) and I'm absolutely terrified especially because I've never gone."

Still others expressed fear of jail, while also being critical of its necessity for a DUI conviction. A multiple offender from California, whose blood test came back at .17 BAC, after being stopped for speeding writes:

I know drinking and driving is stupid. It's ironic because I had actually been sober for about 90 days before this so I'm more than OK with doing what I need to deal with the consequences. The part I'm getting hung up on is going to jail for 90 days would completely destroy my life and ruin my career so it seems a bit extreme. Especially since I've been reading a lot of posts where people have been involved in accidents and got shorter sentences.

Goffman (1986) notes a heavy psychological burden often shouldered by stigmatized individuals. For those with a potentially discreditable stigma which can be concealed, such as a DUI arrest, individuals often struggle in deciding how or if the stigma should be revealed to others. In many narratives, it is clear that offenders have internalized the stigmatizing effects of a DUI and anticipate that others, including close contacts, will view them differently in lieu of their recent arrest. For example, offenders frequently mentioned multiple inconveniences that drug testing or the installation of an interlock device would bring. In discussing drug testing, offenders often sought information on whether or not drug testing would be included as a consequence of their arrest. Writing about interlock devices, offenders express concerns or annoyances with false – positives, ask about the best or most reliable companies, or mention their potential to negatively influence front stage presentations. An offender, who seems to nonchalantly mention their multiple DUIs ("I've had a DUI or two in my past"), note a certain tension stemming from an expected front stage performance with her employer:

The carryover, however, is I have a breathalyzer in my car. I am going to a meeting with the VP of my company later in the week and will be following behind him in my car. I have to blow into it when I start my car and periodically while I drive... I obviously don't want him to know I've had a colorful history.

There is additional support in suggesting that an impaired driving arrest represents an undesirable stigma, capable of tarnishing one's identity, and this comes from explicit statements in which offenders mention effort or attempt to conceal the arrest from friends and family. Given the overwhelmingly young sample, these statements are most often directed towards withholding information from parents. An underage Illinois offender, who received a DUI the night before after blowing nearly .14, writes: "I got a DUI last night... Released without having to pay anything... I do not want my parents to find out and was wondering what the cost/fees for this entire process would be... Also how to make sure my parents do not find out."

A California offender, who writes four months after receiving a DUI, was still concerned about their parents finding out. They fear the necessity to change their insurance will alert them: "As of now, they don't know about my DUI and I've done my best to handle everything myself but it looks like that's coming to an end. What it be possible for me to cut ties with my current (insurance) plan without my parents figuring it out?"

In also dealing with the shame of a DUI, some offenders are unsure of how, or if, to approach the topic of their DUI. A week out from her DUI, a first offender writes on her concerns of others finding out after she crashed outside the bar she was drinking at:

I had gone out that night with some people that I'm just starting to get to know, but got separated from them that night at the bar. Well, the crash happened literally right outside of the bar we were at, and I think they saw. I don't know what to say to them. I don't know if they saw anything and I don't want to think this is the type of person I am. I

mean, I guess it is, but I'm doing everything in my power to make sure this doesn't happen again.

In addition to the consequences detailed above, offenders less frequently mentioned housing concerns, travel restrictions (primarily to and from Canada), or a range of other consequences, including damage to their car.

In his discussion of stigma, Goffman ([1986](#)) refers to some less than desirable trait that an individual possesses which excludes him from full participation in some domain of social life. Considering a DUI arrest as a stigma, representative of a “blemish of individual character” ([Goffman, 1986, p. 4](#)), findings from the qualitative content analysis indicate that offenders fear impending discrimination from some important domain. These domains most commonly include employment and educational pursuits, with individuals concerned the stigma of their DUI may serve to terminate or hinder their current and future placements. In addition to these concerns, offenders expressed a fear regarding a loss of autonomy, often referencing a fear of jai. Speaking to the often-concealable nature of the DUI and the weight of its psychological burden, other offenders specifically expressed fear that important contacts, including peers, supervisors, or parents, would find out.

Emotional Response

As a response to the receipt of a stigma, Goffman ([1986](#)) notes that anxiety is common, as individuals are unsure of how they will be perceived and are unsure of the level of social exclusion they may endure. Despite an internalization of the generalized other, the individual is unsure of exactly how others will define them or if they will be fully accepted. Goffman ([1986](#)) also posits that due to the discrepancy between social expectations of who they should be and

their now blemished identity, stigmatized individuals often feel a sense of shame resulting from a failure to meet expectations. In addition to anxiety and shame, offenders mention a range of emotions in response to their DUI. These include fear, confusion, 'losing it,' sadness or depression, and anger. Mentioned less frequently were positive emotions, including gratitude for the DUI consequences not being as severe as they could have been.

Expressed emotional responses were overwhelmingly negative. Narratives commonly included mentions of some type of emotional response—specifically the emotional impact of the arrest or how they arrest made them feel in general or in response or anticipation of specific consequences. Linked directly to the previous section on fear and concern of consequences, fear was the most commonly reported emotional response. Discussed previously, most of the reported fear was in response to the uncertainty and anticipation of consequences, whether in general, directed at unease with specific consequences (i.e. jail, loss of license), or just uncertainty as to what consequences they can expect.

Often, offenders mention specific fears, referencing some particular domain of social exclusion with which they are concerned. Others, however, resort to expressing general fears and concerns, as noted in the following passages. A multiple offender, 24 years old, from South Dakota, who received a DUI the previous weekend: “Yeah so I’m pretty much in full on panic mode right now and just would like some clarity on where my future may be.” A 19-year-old woman, arrested after an accident, writes: “I go to court in like two weeks and I’m scared to death.”

There were several notable sources of anticipatory fear. Some offenders expressed fear regarding pending bloodwork, in which they are fearful the results will incriminate them. Others expressed fear that they incriminated themselves or did not handle the arrest experience in an

optimal manner. An Ohio offender, two weeks out from their DUI arrest, pulled over for a minor traffic violation and registered a .13 and in anticipation of an upcoming pre-trial hearing:

I'm just worried about what my driving looked like on camera and if I revealed too much to the police by admitting to having a few beers earlier in the night. I knew I was going to be tested so I didn't see a point in lying about it. I thought I was driving fine, but I'm questioning that now.

Similar fears were expressed by Maryland offender, stopped for an obstructed windshield after reporting consumption of four beers and arrested after registering a .10, and also anticipating court: "I am worried that I made a terrible mistake disclosing how much I had to drink, and where I drank."

In these narratives, there is a link between the underlying emotion of fear and the stigmatization of being a DUI offender. In the event of a conviction, and the formal receipt of the criminal label, they will be subject to some or all of the domains of social exclusion discussed in the previous section.

Offenders also commonly expressed confusion, feeling lost, or the experience of an emotional roller coaster. Offenders expressed these emotions in regards to the consequences of the DUI or just inexperience with the procedural steps in handling a DUI. Common passages mention phrases such as "I don't know what to expect" or "I don't know what I'm supposed to do next." An additional code represented "losing it", with offenders mentioning how they felt as though their arrest was making them "lose it", either through excessive stress, feeling insane, or feeling overwhelmed. A passage from a 35-year-old woman first offender reflects losing it well, uncomfortable after her court date was pushed back two months: "I feel like I am going to jump

out of my skin. I'm an emotional roller coaster. I am crying daily, can barely concentrate, and I feel like I've let everyone I love down. I cannot stand waiting for the results.”

Narratives also included references to feeling sad or depressed, feelings of shame, guilt, remorse, or regret, and references to generally negative responses. In mentioning feelings of sadness or depression, offenders talk vividly about how the DUI arrest has brought them down mentally and made them unhappy. In some cases, the depression and sadness reached a point where offenders had even felt suicidal, such as in a passage from a narrative from a registered nurse, charged with a second DUI: “I'm depressed enough... suicidal at times frankly, I just want everything to go back to normal... But it won't. I hate my life.” A woman offender, who registered a .10 BAC, discusses the emotional impact of her DUI 6 months ago: “There wasn't a waking hour in the past six months where I didn't think about the situation and wish I could change things here and there to make this better. I was horribly depressed and thought about suicide on a daily basis.”

Also hinting at the powerful negative stigma offenders have associated with a DUI arrest, narratives commonly included feelings of shame, remorse, regret, and guilt, as were what were coded as general negative feelings. These negative feelings included mention of feeling horrible, awful, terrible, and feeling like “life is over.” Similarly, offenders mentioned feeling embarrassed by their DUI, often discussed in combination with feelings of shame or fear. Still others resorted to self-loathing, insulting themselves with label such as dumb, idiotic, or being a horrible person for doing such a thing. Other noted emotions included anger, both with themselves and the system, feelings of isolation, disbelief, helplessness, and exhaustion.

Not nearly as common were references to positive emotions after the DUI. These mentions were generally in regards to the ‘silver lining’ of the incident. In these passages,

offenders are thankful the experience, or the consequences, were not worse than they were. For the most part, offenders were thankful that no one, including himself or herself, was hurt or killed from their impaired driving. Others expressed gratitude because the traumatizing nature of the incident has served as a wake-up call, and they have chosen sobriety since the incident. Others generally individuals posting further out from their date of arrest, are thankful that specific consequences they feared never quite materialized in the manner in which they expected. One offender, four months out from their DUI arrest, mentioned their positive emotions, directly after mentioning how regretful they are:

Other days I'm just so incredibly thankful that it was not worse than it was. I didn't physically hurt anyone and I'm not in jail. I kept my job and was able to pay for everything. I don't believe in a God necessarily, but I think something out there was looking out for me.

As Goffman (1986) noted, perceptions of failing to meet social expectations can lead to detrimental emotional responses. The overwhelming inclusion of negative emotional responses is indicative of the stigmatizing effect of a DUI, with the anxiety and shame which Goffman (1986) described being corroborated in DUI narratives. In addition, however, the common inclusion of a range of other negative emotions, as powerful as to produce thoughts of suicide, provide further evidence of the powerful role of meanings in this process. Given the range of negative connotations that individuals have assigned to DUI offenders, offenders struggle in accepting that their identities may now have to be modified to accommodate these negative meanings.

Conclusion

The reddit sample is geographically diverse, with all but six states having at least one representative. Consistent with previous research on reddit, the sample was skewed young. Most of the DUI narratives were from first offenders, although repeat offenders published occasionally. In addition to these descriptives, drinking locations and reasons for drinking suggest a social precedent to alcohol impaired driving; DUI arrests often followed departures from collective drinking establishments including bars, clubs, or restaurants. When a reason for drinking was given, it was often social in nature, whether for celebration of birthdays, anniversaries, special occasions, or just meeting with friends.

In discussing their alcohol consumption preceding their arrest, offenders often used vague descriptors including “a few” or “about,” which I argue is used to deflect culpability. References to alcohol consumption provide additional evidence that behavioral predictors of DUI are an important and necessary pathway linking individuals to DUI. In discussing why they encountered law enforcement, offenders most commonly mentioned accidents but assigned blame for the accident on other factors including fatigue, other incompetent drivers, unfamiliar roads, and even animals. In doing this, offenders minimized the impairing effect that alcohol may have played in the accident. Offenders also regularly encountered law enforcement due to traffic violations or vehicle malfunctions, which they often questioned or challenged.

Similar to Goffman’s (1986) discussion of stigma, offenders commonly mentioned fear of consequences and detailed a variety of post-arrest emotional responses. Offenders were particularly fearful of going to jail, jeopardizing their employment or educational pursuits, losing their driver’s license, the financial burden, travel restrictions, or that others would learn of their arrest. Offenders also commonly mentioned the detrimental emotional effects of their DUI arrest.

Offenders regularly reported being scared, confused, feeling lost, or experiencing an emotional rollercoaster. Offenders also expressed feelings of sadness, depression, embarrassment, shame, guilt, and regret. Only rarely did offenders reference any sort of positive emotions pertaining to their arrest experience.

In the next chapter, I present and discuss the two remaining themes that emerged from reddit DUI narratives—accountability/responsibility and seeking assistance.

CHAPTER VI

ACCOUNTABILITY/RESPONSIBILITY AND SEEKING ASSISTANCE

In the *Presentation of Self in Everyday life*, Goffman (1959) analogizes the social interactions of individuals to theatrical performances. Similar to an actor on stage, individuals' social interactions represent a rehearsed performance, in which the actor tries to invoke a specific attitude amongst the audience. Goffman (1959) clearly distinguishes two types of stages actors use. The front stage refers to the space in which the actor is in view of the audience, the space in which he gives his performance. While on the front stage, the individual makes conscious and strategic use of pertinent information to ensure that an idealized performance is given, presenting the self in the best way possible and in congruence with social expectations. In presenting an idealized version of the self, specific facts and details which might be detrimental to the performance will likely be concealed.

In contrast to the front stage, the backstage represents a space distinct from the front, where the actor is separate and isolated from the audience. The backstage is the necessary space that allows the actor to practice their performance to insure it imparts the impression they intend (Goffman, 1959). In previous chapters, I have discussed how a DUI arrest serves as a discreditable stigma, a blemish on one's identity that typically leads to some form of social exclusion. In the previous chapter, I analyzed data from reddit narratives that showed which elements of social exclusion were most pertinent to DUI offenders. These included and inability to fully participate in the labor or educational markets, a loss of autonomy due to the loss of

driving privileges or jail, traveling privileges, or exclusion from certain housing markets, in addition to anticipated financial burdens. As further evidence of the stigmatizing effects of a DUI, I showed that offenders often explicitly mentioned a tension or unease with others discovering their arrest, whether family, friends, or coworkers. And lastly, the receipt of the stigma produced a range of negative emotional responses, consistent with Goffman's assertion of the stigmatized.

Offenders utilize specific strategies of impression management to generate distance between themselves and the stigma of a DUI arrest. Offenders use reddit narratives as a front stage for multiple purposes, in what I argue are attempts to present an idealized version of the self. First, through seeking advice, assistance, or the prediction of consequences, the offender ascertains some estimation of the extent of stigmatization they can expect. Importantly, reddit affords anonymity to limit potential damage if their true identity were revealed. Secondly, the narratives represent attempts of offenders to modify the meanings and redefine and re-interpret specific elements of the arrest, which allows them to create distance from their new stigma of DUI offender. Although the narratives reflect an intra-personal attempt at grappling with managing meanings, they also represent efforts to invite similar others into the process. In doing so, offenders use specific strategies to manage their impression, seeking to impart the impression of someone with minimal culpability for the arrest and thus less deserving of the powerful DUI offender stigma.

The most prominent theme in the data was a combined theme for accountability and responsibility. Although often both discussed within the narratives, offenders often mentioned accountability and responsibility in regards to two distinct aspects of the DUI experience: 1) the actual arrest and 2) the resulting consequences. Although there were narratives in which

offenders appear to fully accept or deny responsibility for their arrest or consequences, the narratives more commonly contained what I call ‘responsibility-lite’. Incorporating responsibility- lite, offenders often partially or fully acknowledge their role in the DUI arrest, yet simultaneously attempt to delegitimize other aspects of the experience-including the reason for the arrest, their BAC or performance on field sobriety tests, the legal system, etc. Similarly, although many offenders stated that they are willing to accept the consequences for their actions, they simultaneously utilize strategies to seek leniency from the judicial system. In these narratives, and in the simultaneous acceptance and denial of responsibility and accountability, I argue that offenders are explicitly using strategies of impression management as discussed by Goffman ([1959](#)), also contributing to the emerging field of digital sociology using the online forum reddit as the “front stage.”

Discussed in a previous chapter, the receipt of a DUI represents a powerful social stigma, which offenders either have become aware of or fear will exclude them from full participation in society. In the case of the DUI offender, this limited ability to participate includes potential loss or limitations of employment or educational opportunities, loss of autonomy due to a loss of driver’s license, loss of freedom, (jail), travel restrictions, etc. In presenting findings in this chapter, I show systematic impression management used by DUI offenders to manage their identity. In presenting their DUI arrest and experience in the manner they do, they attempt to present an idealized version of themselves. Rather than fully accept the DUI offender, or criminal label, which is incongruent with their current perception of self, offenders frame and present the story in a manner that is more consistent with how they see themselves and how they wish to be seen. Further, as a written performance, the narratives also reflect the unique ability of

humans to converse with themselves, using symbols and meanings to inform actions and make sense of complex worlds through an iterative process of interpretation and modification.

Accountability of Arrest

In discussing accountability, or lack thereof, for the DUI arrest, individuals draw upon elements directly related to contact with law enforcement, including the conduct of the officers, their ability to operate their vehicle, or references to other external factors. Although less common, offender sometimes incorporate elements of acceptance of their role in the DUI arrest. Offenders acknowledge either they were in fact intoxicated or that they made a mistake. In some narratives, acknowledgment of responsibility reads as genuine, and is not later contradicted with strategies of denial. In these narratives, offenders provide details of the arrest, acknowledge their role, and ask for assistance or if anyone has experienced anything similar. A second time offender in California, arrested ‘a few nights ago’, provides an example of this acceptance: “To start, I understand how completely careless it was of me to drive under the influence. Just looking for anyone with prior or recent experience with a second DUI in California, specifically (city).” After spending a weekend in jail, another offender, who recorded a .17 BAC, writes: “I cannot believe this happened to me. I know it’s 100% my fault. It’s my responsibility. I made a horrible mistake and now I feel like I’m staring down the end of a barrel.” In these rare cases, the primary concern is information seeking. Rather than seeking leniency, individuals are simply seeking advice on what comes next from a community of individuals with similar experiences.

The majority of narratives, however, included multiple strategies to delegitimize the arrest in some form. Offenders delegitimized the arrest by directly challenging law enforcement or the methods used to detect intoxication, minimizing the real danger or risk of their unique DUI, or through other strategies of external blame. Offenders attempt to present an idealized

version of themselves, one that is not congruent with a DUI arrest. Offenders use strategies to invoke uncertainty as to whether the DUI was really warranted, if the offender actually represented a danger to themselves or others, or if blame can instead be placed on other factors. These strategies limit offender responsibility and provide evidence of the unnecessary stigmatizing DUI offender label.

Challenging Law Enforcement

In deflecting responsibility for their arrest, offenders most commonly challenged law enforcement. Offenders challenged law enforcement in three primary ways. First, and most likely, offenders used statements intended to call into question the intentions, honesty, or competency of the arresting officers. Offenders often mentioned that their DUI resulted from an officer who was just ‘*out to get them*’ to challenge the intentions and/or honesty of officers. A 28-year-old Colorado offender, arrested after initially refusing the breathalyzer: “The officer approached me and the first thing he said was ‘How much have you had to drink tonight?’ – I knew from that moment he was just out to find someone.” A woman offender in Tennessee, who had ‘about three beers’ and failed her field sobriety test: “This man (the officer) knew we came from the bar and his only cause for pulling us over was going 45 in a 40. Karma is a myth. I’m naïve as hell. When a sheriff is trolling for DUIs, he will find a way to make it happen.”

Offenders also challenge the arresting officer by questioning their honesty and professionalism. In challenging their professionalism, offenders often mention rude, aggressive, and threatening officers, sometimes resulting in forced compliance into specific procedures. A Michigan offender, who registered a .13: (after completing several field sobriety tests):

He then asked me to take the breathalyzer, which I verbally stated I plead the fifth and I don't want to take it. He forced me to take it and said I do not have a choice and that I have to take it. Since he made it seem that way I ended up taking the test and blew a .13. He placed me under arrest.

A Texas offender, dealing with their first DUI: "My BAC with blood showed .2. I had asked for a breathalyzer, but the cop wouldn't take that for an answer until he went into long detail about the hospital, coercing me into a blood test."

In other instances, offenders questioned the honesty of the officer, typically done by referencing completed police reports. A first offender from Massachusetts, a self-described 'big guy' who 'probably had a total of five beers throughout three hours': "I go to my arraignment and get the police report... And what do I see? A bunch of lies!!! I know my license was going to be suspended for refusal but I remember all the details in the police report. What a bunch of bs." A Florida first time offender, who fell asleep at a red light around 2:30 AM:

Report states I rolled into the intersection while the cop knocked on my window during a red light. Which would have to be a lie because my car was not blocking traffic other than the lane I was in and why would they leave my car in the middle of the intersection and not move a squad car to alert drivers in the middle of an intersection. Cop also wrote I refused a sobriety test, but he started the first one which I completed. Then he started the next one which only then did I refuse all other tests. No mention of the first one and report. He also mis-quoted one of my responses.

Other times, offenders challenged officer actions because the officer did not follow proper protocol or was incompetent. A New York offender, arrested after being stuck in the snow following a blizzard, noted the unorthodox actions of the arresting officer:

It was a very bizarre arrest. He decided not to even handcuff me or take me to jail and just took me to a local town court... He shot the shit with me and gave me a breathalyzer and technically charged me with a DUI even though he acted like he wasn't the entire time. He then dropped me off at home like this was no big deal or something even though he just accumulated me a felony.

An offender from an unspecified state discusses the police report to question the officer's competency:

My police report has (what I think) a glaring mistake. It says I was pulled over a full week before the date of my rest. Clearly they just copy over the last police report they wrote and change the details, but I was really hoping this will be a reason to doubt the police report! After all, if the date is wrong, who's to say the rest the details aren't wrong?

A first-time offender in Florida also utilizes the strategy: "No DUI unit made it out to record, so no audio or video of my stop, just a police report which has its holes which I'll mention below. No admission of drinking, which he didn't even ask which is weird; he is a newer cop."

Lastly, offenders commonly challenged the entire validity of the stop by questioning whether the officer had probable cause needed to initiate the stop in the first place. Used in combination with challenging the officers' honesty, an offender from an unspecified state notes:

Anyway, the police officer had no probable cause, but she lied on her report and said all the magic words needed to expand the scope of the stop and establish probable cause. She was standing 7-8 feet away from my window while I was talking to her partner, but she still claims she was able to tell that my eyes were bloodshot and watery, that I had slurred speech, and that she could smell alcohol on my breath. This was at night. I subpoenaed the body cam, and of course, she's lying... I refuse to be punished for a crime when the arrest was illegal.

An offender, arrested after registering a .12 upon leaving a wedding reception, asks about the legality of the arrest after he was stopped after pulling into a nearby driveway to check directions: “There’s my story and my question is did he have probable cause to pull me over for simply pulling into a driveway and pulling back out 30 seconds later, committing no traffic violations or swerving whatsoever?” Also providing evidence as to why offenders turn to reddit, he or she adds: “I am planning to talk to a lawyer Monday, but I’m going crazy right now with questions and I was hoping to get a little peace.”

By challenging officers, offenders seek to invalidate the DUI by suggesting officers were out to get them or incompetently conducted the stop. In doing so, offenders aim to generate uncertainty amongst the audience about the necessity of the DUI arrest.

Challenge BAC Readings

Sub-coded under challenging law-enforcement, offenders regularly challenge their arrest and/or level of intoxication by challenging the results of BAC and field sobriety tests.

Challenging BACs which exceeded the legal limit, offenders either offered explanations as to why it was above the limit (and that is not reflective of their level of intoxication), or question whether the accuracy of the BAC. In explaining why the BAC might have been so high, despite minimal alcohol consumption, offenders, typically women, cite their small physical stature. A California offender, under age 21, blew a .09:

I drove two 21+ friends to a bar and we all had a few drinks until 11:30 PM. Afterwards, we went to a karaoke place but I did not have any more drinks since 11:30 PM. The elapsed time between my last drink and getting pulled over was about two hours... (details of arrest experience)... California does have a zero tolerance policy so the fact that I blew over 0.00 still incriminates me. However, I’m an extremely small person (well

below 5 foot) and borderline underweight, so even one drink and bring me over the limit even though I'm fine and not impaired).

Men, on the other hand, use their larger physical stature and/or their tolerance, often discussed as a source of pride, to question how their BAC climbed over the legal limit. A California offender: "I'm 5'10", I weigh 185 pounds. Had seven drinks, usually drink about 15... (*arrest details*)... I ended up blowing a little over .20, which is outrageous because I'm a heavy drinker." Later, the same offender, after noting he had taken multiple acid reduction medications earlier in the day, suggests and offers a link to a DUI defense firm page, which mentions gastroesophageal reflux disease as potentially causing high BAC readings.

Offenders also turn to other extraneous explanations for their BAC readings that exceed the legal threshold. A first offender in Connecticut, "astonished" after consuming a few beers at a work happy hour in arrested at a DUI stop after blowing nearly a .09 questions his BAC:

Such a headache for something I never wanted to attend anyways. I never drink, and I don't like happy hours lol. But in all seriousness I was so shocked that it was giving me those BAC levels, that is why I gladly accepted the test initially. I was also sick all week with a chest cold, and taking cough drops which are in my pocket at the time of the arrest, (and listed on my possessions). I am now wondering if that has something to do with it to sway the results. I mentioned the margin of errors these machines must have, and the attorney shrugged it off and said they are practically spot on. I am a structural engineer and being an expert and specifications and such, I find that really hard to believe.

An offender from rural Ohio, charged with a high BAC DUI:

Blew a .185, which surprised me because I thought I took all the necessary precautions to get sober (pace myself at one beer per hour, drink water, eat something, etc.) Except I had a good night shot at the end. Closing time. The beers were bottles of (brand of beer) dark ale, so pretty high proof.

After describing his arrest, he added:

What surprised me was how high I blew. Like, isn't a .185 nearly black out? I'm not a heavy drinker, more of an occasional one or two after a good workout or with friends... I guess I mean, can we challenge the breathalyzer results with any kind of chance? I have my tongue bifurcated, by the way, so I'm wondering if maybe mouth alcohol got involved.

In these cases, offenders struggle in accepting their BACs were simply the result of alcohol consumption. Rather, offenders call attention to extraneous factors including cough drops, a bifurcated tongue, or gastroesophageal reflux disease that could potentially sway results.

Other offenders, in disbelief of how they had a high BAC, noted the extended duration since their last drink or mentioned that they had not eaten. A California offender, who received his DUI after rear-ending a vehicle and registering a .14: "I had a beer and two old fashioned over the course of about four hours. Normally not a big deal for me, but I hadn't really eaten all day." Another California offender, a 23-year-old woman bartender, also sites her lack of food:

"Last Wednesday I was pulled over after working a shift at my bar job with a .18 BAC. I have no idea how I got so high. I had a few IPAs on an empty stomach towards the end of work and felt fine when headed home on the highway."

By challenging BAC results, offenders seek to call into question or offer explanation for their actual level of impairment and attempt to present themselves as more than capable of assessing their own competency to drive, independent of objective BAC results. Offenders offer a range of

other factors that serve to minimize their responsibility rather than presenting as fully culpable for their illegal BAC

Challenge Field Sobriety Tests

Equally likely to be utilized to delegitimize the arrest and deflect responsibility, offenders attempt to discredit or invalidate the results of field sobriety tests. By attempting to discredit failed field sobriety tests, offenders attempt to present the image of a less threatening driver. Offenders noted existing medical conditions or potential side effects of medication, contextual factors including less than ideal shoes or inclement weather, shock or general anxieties from the accident or interaction with police, or the biased and subjective nature of the tests, which they feel are designed to fail to invalidate field sobriety test results.

Offenders often referenced existing medical conditions or mental health issues that made field sobriety tests especially challenging. A first offender from Texas, pulled over for running a red light: “Got pulled over and passed all parts of the field sobriety test, except for the standing on one leg thing (pigeon toed and couldn’t stand on that foot very long even if I was sober as a bird).” Other times, offenders mentioned medication for existing conditions. Another Texas first offender, arrested after a breathalyzer refusal:

I got pulled over because I was slightly up on the crosswalk even though I stopped at the red light but per the officer. Long story short he suspected alcohol in my system and proceeded with the sobriety test, which I was doing fine until he made me do the one leg walk. The walk was sloppy because I was tired and was on my recently started medication (which has been making me dizzy).

Individuals also cited environmental or contextual factors as interfering with their ability to perform sobriety tests properly, which led to failing results. These generally included things

such as the weather or even the shoes worn during the arrest. A California offender, reporting consumption of two beers, pulled over after swerving and driving under the speed limit, registered a .08:

I was given a field sobriety test after the officer said he smelled alcohol on my breath. The road we pulled up off on was slanted and uphill. Which I mentioned at least three times throughout the test and at one point the officer responded with “well this is all we have to work with”. I was also freezing cold and was shivering pretty heavily. I am 6’3” and weigh 140 pounds. I get cold very easily and always have because of how skinny I am. I was then told I didn’t pass the field sobriety test and was going to be given a breathalyzer test. I blew a 0.08 both times and was cuffed and taken to jail.

An additional California offender, 25 years old, was arrested after being pulled over for not stopping at a stop sign and registering a .12 BAC:

He then does the sobriety test and I know I passed except for the one where you balance on one foot for 30 seconds. I drop it but because my feet hurt due to the shoes I was wearing, business attire shoes with the wooden bottom. However, he assumed that I was intoxicated and went ahead and arrested me.

Still others challenged their incriminating performance on field sobriety tests based on either being nervous, having a fear of police, or from being in shock or concussed from the accident leading to contact with law-enforcement. Also common, and congruent with both a distrust of law-enforcement and a desire to deflect responsibility, offenders argue that the sobriety tests are biased, unfair, and would be difficult or impossible to do even when sober. An Ohio offender, who registered a .11 but “didn’t feel that drunk”: “Well when I’m presented with a cop speaking to me I tend to get really nervous and those thoughts vanish. I step out and proceed to do the

field sobriety test. Now even if I was sober some of these tests seem a bit ridiculous.” An Illinois offender, who does report they eventually beat their DUI, despite registering a .12 BAC:

“I then did the one foot stand test, which many people cannot do sober. I’m wearing Flyknit Air Max sneakers, which are like walking on clouds, but absolutely not supportive whatsoever. I lift my foot, and after counting to three-1000, I put my foot down and know this isn’t going to happen with these shoes on.”

Similar to challenging BACs, challenges to incriminating field sobriety tests are an attempt to offer alternative explanations to true impairment and real culpability. Despite often reporting an objective indicator of impairment (i.e. a BAC reading in excess of the legal limit), offenders offer competing narratives to counter the assumption that they were impaired. This was done by challenging the validity of the tests or by attributing poor performance to other factors unrelated to the impairing effects of alcohol.

Minimization of the DUI

Extant literature identified cognitive factors associated with impaired driving. Cognitive predictors of impaired driving refer to attitudes and perceptions of impaired driving. In chapter 4, I identified and tested the mediational role of three cognitive predictors: global attitudes, risk perception, and tolerant social networks. Of these, global attitudes and tolerant social networks mediated the association between specific groups at high risk of DUI and impaired driving. Individuals who perceived impaired driving as less threatening and those with more tolerant social networks were more likely to acknowledge impaired driving. The role of threat, danger, and risk are regularly included in DUI narratives. To manage the meanings associated with their DUI, offenders attempt to modify risk, threat, and dangers of impaired driving.

Offenders commonly minimized their DUI to deflect full culpability for the DUI arrest. In minimizing the DUI, offenders portray their arrest in a nonthreatening manner, reflecting as minimal a threat to public safety as possible. The most common strategy of DUI minimization was clarification that there were no injuries and/or accidents. In negotiating meanings of a DUI, it is apparent that offenders perceive an ordered nature to DUIs, in which all are not equal. By clarifying that their impaired driving experience did not cause any accidents, or if it did- minimal or no injuries to the self or others, they are seeking to situate their DUI on the less threatening position of the spectrum, as opposed to a crash with injuries or fatalities. A West Virginia first time offender, who registered a .18 BAC, uses this strategy: “From my recollection there was nothing out of the ordinary about my driving or any erratic behavior, there was no harm done to my vehicle or anybody else but I’m completely terrified about my future and the possibility of serving jail time.” A Pennsylvania offender, pulled over two days prior and registering a .15 BAC: “As stated in the title this is my first BAC. I didn’t get into an accident or anything like that.”

Individuals also minimize the danger associated with DUI using strategic references to space. Specifically, individuals sought to persuade the audience of minimal danger by referencing the short distance of their impaired driving trip or their close proximity to their destination prior to being pulled over. A Georgia offender, who registered a .09, references the short distance of their trip to justify why their experience is not as threatening: “I made the mistake of having three beers then going two or three hours later to go get a hamburger at Steak ‘n Shake that was five minutes away. I felt completely fine and was driving completely fine.” An offender from an unspecified state, pulled over because their blinker wasn’t working and arrested after blowing a .08: “One night I had a few shots and just drove down the road to my house.”

Offenders also indicate their ability to successfully operate their vehicle, despite consumption or their illegal BAC, through strategic reference to space. Offenders' actual impairment (and thus danger) can be questioned by indicating they had managed to drive substantial distances prior to being stopped. An offender from an unspecified state, arrested after leaving a wedding:

After arriving back at the hotel they wouldn't allow me to stay because I planned on staying in a friends room so I was forced to leave considering I didn't have anything but \$50 on me. I drove 50 miles back and hit a checkpoint three blocks from my house.

A 20-year-old male offender from New Jersey uses a similar strategy, despite registering a .15 BAC:

Last night I drove home from a friend's party I was at about 40 minutes from home. When I was three minutes away from home I look down to check my phone, when I looked up I was swerving off the road. I just missed a tree luckily but I did end up getting stuck in this mud that I could not get out of. A couple minutes later the cops showed up.

Offenders regularly stated that they felt fine or were driving fine prior to their arrest to diminish their DUI, rather than covertly insinuating it. By stating this, individuals indicate a rational choice in which they were able to properly assess their level of impairment. Their reports of driving fine serve as further confirmation of their credibility (and minimal danger to others). An Indiana offender, who blew a .08: "So I was charged with a DUI in Indiana. I was fine, I didn't weave or anything, but officer said I was speeding." A Minnesota offender includes a similar passage: "I should also mention I wasn't feeling at all drunk-wouldn't have driven my car

in the first place if I had! And I hadn't been swerving around or anything-just cut a light too close and she (officer) happened to be there.”

Offenders use tactics to make their unique DUI experience appear as minimally threatening as possible to manage meanings associated with their DUI arrest. Offenders explicitly stated that they felt fine and did not feel impaired, did not cause any injuries or accidents, and even managed to successfully maneuver their vehicle across substantial distances, thus discrediting accusations of impairment and reassuring the audience of minimal danger to public safety.

External Blame

Lastly, individuals turn to external factors to deflect responsibility for their DUI. They often provide forced or urgent reasons for driving or other factors. A multiple offender from an unspecified state, arrested after being stuck in blizzard conditions, discusses the urgency and necessity of driving despite his impairment:

The concert was downtown in the city and my two accompanying friends live in a suburb separate of where I live so I took them home and then intended to go home which NORMALLY I wouldn't even attempt to drive back to my house knowing it's a far drive from there but I was TIRED and had to work in the morning and there were no plows anywhere, literally. All streets but the main roads were blocked off so I almost had no choice. There was nowhere safe to park my car to stay put and not drive. It was that bad. Not even on my friend's street which is where I would've stayed. I had to drop them off down the street for him to even go home because the street was not plowed. Given all this, I then drove the extra 20 minutes back to MY suburb, as completely fine and diligent as one can in a blizzard. I was about a five minute drive from my house and almost home when my car got stuck.

A Kentucky offender also discusses a forced reason to drive:

Going to try and make this as concise as possible. So New Year's eve, I knocked a table over which led to my roommate's bong being broken. They proceeded to beat the crap out of me, giving me a concussion, broken ribs, and other various bruises. I drove off in an attempt to get out of the situation and find a place to stay, while being partially out of it.

Surprisingly, individuals draw upon their lack of memory, indicative of severe impairment, to deflect responsibility and seek leniency. Several offenders, in addition to their DUI charge, were also charged with evading police, and reference their blackout status to deny accountability. A 23-year-old Utah offender, who registered a .28 BAC: "I don't remember why I got in my car at all. I hit a curb and I think I may have crashed into another car. The police record says I 'attempted to flee the scene.' I can't deny this because I was in a complete blackout." An offender from an unknown state, who got a DUI three days prior to posting:

I decided that I was hungry and I got in my car to drive a mile away to a nearby fast food restaurant. I was so drunk that I blacked out but I remember seeing lights and freaking out. The next thing I know I was stopped and had police officers yelling instructions to me...(Details arrest)...During the arraignment the judge read that I was being charged with a DWI and evading the police... evading the police is considered a felony in Texas. I honestly was too drunk to realize what the hell I was doing and I'm hoping that might work in my favor.

Offenders aim to rationalize their DUI arrest by blaming factors out of their control. The offender conveys the necessity of their decision to drive impaired by presenting urgent, emotionally charged, or threatening contexts. Further, individuals challenge the extent to which they should be held responsible by referencing their inability to recall decision making due to blackout status.

Accountability for Consequences

Individuals utilize similar strategies in addressing their accountability for the consequences of the arrest. Despite generally seeking the same thing, reduced consequences or some sort of leniency in the judicial process, individuals use distinct strategies when seeking leniency from the consequences of the arrest. An ideology of “this is not me” accompanies and justifies the request for reduced consequences, indicating the DUI arrest is really not representative of the true nature of the individual’s identity. Offenders rely on a process of valorization of the self to provide supporting evidence that the DUI arrest is not an accurate indicator of their self. In this valorization process, individuals draw upon several unique tactics to distance themselves from the negative meanings associated with DUI offenders. These include noting positive qualities of the self, including gainful employment or potential for such, strategies they used to avoid driving drunk the night of the arrest, and their cooperation and compliance during the arrest. Offenders call attention to their clean driving and/or criminal record prior to the arrest to further indicate the rarity of this mistake and lapse of judgment.

As was the case with accountability pertaining to the arrest, offenders rarely made statements indicative of full intentions of accepting responsibility for the consequences of the arrest without contradictory statements. In narratives appearing to be accepting of the consequences, offenders acknowledge pleading guilty, taking the arrest seriously, wanting to move on, or that they had learned their lesson.

More common, however, were narratives reflecting a reluctance to fully accept the consequences. In doing this, offenders sought to distance themselves from being labeled a criminal, trying to portray the event as inconsistent with their true identity and therefore warranting lessor consequences. As the individual portrays a clean image, one incompatible with

the criminal label, harsh punishment is no longer necessary. To accomplish this separation from the stigma of the criminal label, individuals valorize themselves by noting their positive attributes, while also classifying the impaired driving as a mistake or not representative of their true character. Offenders are warranted in seeking leniency in sentencing by presenting to the audience the image of a good person who simply made a one-time mistake or had a rare lapse in judgment. In doing so, they are actively trying to modify their DUI offender label.

In presenting a more idealized version of the self, indicating that the DUI arrest does not correspond with their perception of self, offenders commonly turn to valorization. In valorizing themselves, offenders mention positive things about themselves or intentional strategies they took to avoid driving while impaired. Specifically, offenders often mentioned their gainful employment or ways in which they contribute to society, including their roles as students, workers, volunteers, etc. A first time Tennessee offender, arrested several days prior to their post:

It's a first time offense. I am a stand up member of the community (volunteer all the time, almost every weekend,) I am a second-year member of AmeriCorps (if this doesn't fuck that up), never been in trouble before, have (or had???) plans of going to law school to be an environmental lawyer.

A female offender, less than a month from her DUI: "I try to remind myself I'm a good person who made a poor choice. I am a wife, a mother, I am college-educated, I have a good job, and the court does not want to royally screw over someone who made one honest mistake."

In bolstering their case that they are not a danger, know better than to drive impaired, and just made a mistake, offenders valorize themselves by stating the ways in which they proactively

sought to sober up or avoid driving impaired the night of their arrest. A California offender: “So I attended some event in (county) over the weekend, I got pretty smashed and didn’t feel comfortable driving home. So I slept in my car on the side of the road and woke up to being arrested.” A Utah offender mentions the multiple steps they took prior to registering a .11 BAC:

I stopped drinking about 30-45 minutes before the show ended, we got out, we had a DD (designated driver), we got food, I hung out at his apartment and then around the 1:00 AM mark freaked out because I had work the next morning and made the unfortunate decision to drive. I thought I had waited long enough because I felt fine.

A Michigan offender mentions that they have been able to decipher when they were too impaired in the past: “I’ve been worse and always Uber home. It was one of the rare times where I had two beers and a shot. Not an excuse for driving still. Just got caught for doing 5 over 25 feet before the sign change.”

In seeking leniency, offenders note the rarity of the incident, in which it represents a rare case of a lapse in judgment. An offender from an unspecified state makes it clear this is abnormal behavior: “Note that I don’t ever drive if I plan on drinking and I always bring my wife for social events so she always keeps me in check. This was completely a fluke thing.” An offender from Virginia makes a similar case: “My drinking habits are fairly tame despite the situation; usually the girlfriend and I will split a bottle of wine or fancy beers with dinner one or two nights a week and might visit a brewery on the weekend went out with friends.” A multiple offender, unspecified state, notes how uncommon it is that he drinks: “I am not a big drinker, as this night was my second time drinking in the year, the other being at a work Christmas party.”

Related, offenders aim to portray the arrest as a mistake. A Washington offender: “I made a huge mistake last night and drove after drinking three beers over a three-hour period. I thought

I was ok to drive. I have no prior offenses of any kind (including speeding tickets) and I blew a 0.082% to 0.085% (just barely over the limit).” A Pennsylvania offender, frustrated with a recommendation for an eight-week alcohol treatment class after an evaluation after a high BAC (.211) arrest: “I’m planning on going to another place that could be less strict because I don’t feel like the classes are necessary given my clean history and lifestyle. I made one mistake, I’m not an alcoholic.” A Texas offender, who registered a .2: “This is my very first trouble with the law of any sort in Texas. I’ve previously never been pulled over for speeding, traffic violations, nothing. One night when no one could take me home, BAM. DWI.”

In supplementing their case, proving this is an isolated occurrence, and not representative of any real threat they pose or the need for a criminal label, offenders explicitly mentioned a clean criminal and driving records. An offender from an unspecified state, registering a .16 after a neighbor called police: “I should also mention that I have no other blemishes on my record, not even a parking ticket, so this is extremely isolated.” A first offender from Maine uses the strategy in inquiring about the likelihood of leniency and sanctions: “Given this is my first offense, and I had a spotless record before this, what sort of chance do I have, is there hope for restricted license?”

Finally, as part of the valorization process, offenders reference their compliance and cooperation throughout the process as a means of seeking leniency. A 24-year-old South Dakota multiple offender includes this component in their narrative, pulled over after speeding:

Pretty much end of story, blew a .11 unfortunately. I was super cooperative according to the cop, if that's worth anything, and he just charged me with the DUI. I still have my suspended imposition so I'm going to try to use that. I've had a brief discussion with a lawyer. She seemed confident I should be able to use it since it wasn't an extreme offense and I would probably lose my job and have to drop outta school if I were to get convicted

to the maximum charge.

A 24-year-old first offender from New York, who registered a .08 BAC also mentioned their cooperation as a strategy of valorization:

Got arrested and taken back to the station. About 20-30 minutes later, got my second breathalyzer test and again it read 0.08. Cop kept thanking me for being so cooperative and assured me that due to the circumstances it would overwhelmingly likely be reduced to a dwai since I've never had anything more than a speeding ticket prior to this.

In addition to convincing the reader of the isolated nature of the incident, offenders often take aim at the legal system or criticize DUI sanctions as a means of justifying why they do not deserve them. In challenging the legal system, offenders hinted that the system was biased against them and was set up to ensure offenders suffered. A New Jersey offender, charged with a DUI and scared of violating probation:

Part of me knows I did nothing wrong (besides driving 10 mph over the speed limit), but I keep reading all these articles and examples of people who seem to have been convicted on even less evidence than me. It really sounds like the police just need to convince one judge that they could tell I was high by watching me, and I'm fried.

A California offender, arrested two months prior to the post after registering a .17:

I hired a lawyer and at court today she said the DA is recommending 90 days which she found to be completely unreasonable. I have discovery January 20 in which she is hoping to get me in front of a DA who is not hell-bent on destroying my life and willing to work with me.”

An additional California offender, arrested after doing burnouts in a rental car in an empty hotel parking lot, also registering a .17: “I’m so frustrated and sad, and pissed at myself, pissed that the system that allows shitty cops to do whatever they want, and deeply depressed at this point.”

In also seeking leniency from the consequences of their DUI, individuals also criticize the consequences as being too extreme and severe in relation to their arrest. An offender from an unspecified state expresses their disapproval:

It’s unfortunate to say that now I drink more than ever... I drink daily now because I don’t have shit to do. I never get to leave the house, I feel like I’m on house arrest. I had to move from the city to BFE rural ass Illinois. A DUI is honestly just fucking overkill. This is all over the top... MADD I’m sorry for your loss but I didn’t fucking kill anyone. I was probably two beers over the fucking limit. I’m suffering now more from the DUI than people who committed much worse crimes. I’m seriously losing my mind. I should’ve robbed a bank or dealt heroin, the consequences would be much less and I can get a job.

A Canadian offender, with two DUIs in the previous 10 years:

This is a blatant miscarriage of justice. A 12 year sentence is absolutely egregious to a DUI without aggravating circumstances. Murder can carry less consequence... DUI legislation in Canada throughout the provinces has to stop. This is ridiculous that I cannot earn anywhere close to my potential and provide for my family because I had a couple beers on a back road... Something has to stop this socialist mentality.

A multiple offender from an unspecified state, concerned that their DUI might jeopardize their employment: “Literally got pulled over in front of my driveway-cop smelled beer. I know drinking and driving is wrong, but this wasn’t even work related! Some nurses drug divert and get less crap than this!”

Summarizing findings regarding accountability and responsibility, offenders most commonly relied on a strategy of simultaneous acceptance and denial, a responsibility-lite. As such, individuals often acknowledge their role in the DUI arrest, but do so in a tentative manner which I argue is consistent with Goffman's (1959) discussion of impression management. These DUI narratives serve as a digital front stage, in which offenders aim to present an idealized version of themselves while actively working to re-interpret the meaning of their DUI. On this digital front stage, offenders make conscious decisions in including or excluding pertinent details of the arrest and of themselves to invoke a specific response from the audience. As narratives often include inquiries regarding how to seek out reduced consequences, offenders utilize strategies which limit their responsibility and accountability for the arrest, while simultaneously making their impaired driving experience appear as minimally threatening as possible. In actively managing meanings associated with their DUI and seeking to distance themselves from the stigma and consequences of a DUI, offenders valorize themselves and provide evidence that leniency and a criminal label are not warranted.

Seeking Assistance

A final theme emerging from the narratives was seeking assistance. Given the specific subreddits from which the narratives were drawn (legal advice, DUI), this is perhaps not surprising. However, advice seeking/seeking assistance played a prominent role in the narratives. In earlier sections, I discussed offender fear as an emotional response. In these passages, individuals often wrote about their anxiety, fear, or confusion regarding the next steps and managing their DUI. This theme, the common inclusion of seeking advice, seems to be a logical extension of these concerns and offender negative emotional states. In seeking assistance, several unique subcodes emerge. First, offenders asked for broad and vague responses to their narrative,

soliciting general advice or seeking responses from individuals who have been in similar situations as them. Additionally, offenders had questions and sought advice on legal matters, including questions about lawyers, the court process, and assistance clarifying legal consequences. Also common, narratives were written to seek advice regarding the consequences of their DUI. In asking about consequences, offenders asked questions about how the DUI would influence their employment or future opportunities, asking fellow redditors to offer input on what sanctions their arrest would likely carry, and asked for advice on how to seek reduced sentences or receive some sort of sentencing leniency. Other times, but less common, individuals turn to reddit to ask for hope and encouragement.

The most common advice seeking was coded as *general*. Rather than anything specific, general advice seeking comes in response to the entirety of the offenders' unique story. In addition to serving strategic goals, as previously discussed, details in the narratives cue the reader to the specifics of the individual arrest. After often detailed descriptions of the arrest and whatever other information is known, individuals ask if anyone has any insight, has gone through a similar experience, or ask about what they should do. A 21-year-old offender from Washington, who registered a .17: "I am just really looking for any insight I can get from people who have been and or maybe in the same boat." This was similar to a multiple offender in California, who blew a .19: "I pretty much already googled what to expect but I'm looking to see if anyone has any experience with the second DUI?"

Outside of general advice, offenders use their posts to ask for specific legal advice, which were sub-coded as legal representation, clarification of court process, and clarification of legal consequences. In asking questions about legal representation, offenders generally ask whether or not they should get a lawyer and if it is worth it, how much good legal representation costs, and

whether a public defender will suffice as opposed to a private attorney. In asking whether a lawyer is necessary, an Oregon offender who registered a .13:

Should I get a lawyer? Don't have a lot of money and the fees sound like they will be pretty hard as it is. I'm not sure about the license suspension though. Sounds like I could be out of driving for 30 days (at least), but I might be able to get that overturned for an early hardship? But, is that something I'm going to be able to do, or does an attorney have a better shot at making that happen?

An Illinois offender: "I realize that the Illinois state law says that since I refused the test I lose my license for a mandatory 12 months. However, I was curious that if I hired a specialized lawyer if there is a chance this could be considerably reduced."

Offenders also regularly seek advice on the cost of legal representation, or whether or not it is worth it. A California first offender seeks this advice: "22-year-old female and blew a .16. First arrest in trouble with law. \$3500 was what I was quoted by a man whose cases are 75% DUI. Is this too much?" Another California offender, arrested for blowing a .09 after being parked and asleep in their car: "His fee is \$15k if it does go to trial and to defend me for the whole trial. If it doesn't, he will charge me for the hours worked to prep for the trial. He estimates anywhere from \$4-7.5K. Can anyone say if this is a fair rate?"

Lastly, offenders expressed confusion as to whether a public defender will be able to secure the same outcomes as a private attorney, and seek advice on which one they should acquire. An offender from an unspecified state:

I've been trying to research pros and cons of public defenders representing you in a DUI case. Seems pretty hit and miss to get a good or not so reliable defender. If anyone has been arrested for a DUI, did you have a PD or a private attorney represent you, and what was your experience? Do you think either one would make a difference in the outcome for someone who has no criminal record, was cooperative, and had a 0.09 blood alcohol content?

A first offender, arrested in Georgia with a .13:

I have zero dollars (and very little on the horizon), but could probably borrow some money from a friend and/or my parents. From what I've googled, it looks like a lawyer will cost me around \$5000. Am I going to spend \$5K on a lawyer just to receive the exact same punishment with the public defender?

In seeking assistance with clarification of the court process, offenders acknowledge an uncertainty with how the legal process works. Offenders seek advice on how to present themselves in court, what questions might be asked, and the timing of court processes. Offenders more commonly sought advice with the clarification of their legal consequences. The subject of these inquiries were broad, but commonly included questions about whether or not their license was still valid or if they were still able to drive legally. Similarly, offenders asked about the license reinstatement process, car insurance after their DUI, and questions pertaining to ignition interlock devices. Other times, offenders use the posts to seek advice on other consequences. Most commonly, they asked the reddit community to predict their consequences. Typically, this was asked in a manner similar to that of this first offense Michigan offender: "I blew a .23 and was arrested with an OWI in (county) Michigan. First time offense, no criminal background. How do you all think I will be punished?"

In addition to asking about expected punishment, offenders seek advice on how to get reduced sentencing or some sort of leniency regarding the consequences of their DUI. A first offender in Texas:

Does anyone think that a \$10,000 lawyer would be worth it? I want to get the DWI off my record in any way possible, but is that even possible? I know that if I'm convicted it will stay there for life, but do you think there's a chance my DWI could go down to a lesser sentence?

A Washington offender, who blew a .17: "How can I be proactive in bettering my future so I have higher chances of getting off a little easier. Obviously I know I'm fucked but I want to do anything in my power to make this easier on myself."

Similar to the fear that the DUI will influence their employment options, offenders have questions and seek advice on how, or if, they need to reveal the offense to their employers or whether or not it shows up on background checks. A substitute teacher, who received a DUI two days prior after driving the wrong way on the highway and blowing a .14, asks about how they should disclose and how the DUI might impact future plans:

Putting aside the question of how I would actually get to work. Would I be fired or get in trouble if I failed to tell him (supervisor) about getting this DUI? Should I inform only him or should I let the superintendent of the entire school district know? Should I go to work, say nothing, and wait until I am approached? I'm sure someone from the schools has seen it in our town's newspaper... With this in mind, looking at the bigger picture, should I forget about my dreams of becoming a full-time teacher??... How likely is it that I would get a job with this DUI and should I really give years and thousands of dollars to this degree if I would come out of it employable?

An Illinois offender, a recent college graduate with two upcoming interviews:

I've finally gotten two interviews for next week, the only problem is that I was arrested a week ago for a DUI. I was not convicted yet, only arrested. My question is, if they did a background check on me, will it show up? And will this be grounds for not hiring me? Freaking the hell out right now.

Offenders sometimes turn to reddit to ask for help or encouragement. As previously noted, the receipt of a DUI is overwhelming, and stressful, and comes with a myriad of negative emotional responses. As such, offenders sometimes just ask for help, support, and encouragement. A first time offender from Tennessee: "Just looking for experiences and encouragement because the sense of dread that I asked just accidentally ruined my life won't go away." Other offenders explicitly state they do not want any negative feedback on their reddit post, as the DUI has been damaging enough. A multiple offender from an unspecified state: "I could use some advice/kind words. Please don't harp on how I deserve this-I'm depressed enough."

Conclusion

In the opening of this chapter, I proposed that DUI narratives on reddit represent a front stage ([Goffman, 1959](#)), albeit a digital one. Similar to a theatrical performance, offenders use this digital front stage to impart upon the audience an idealized version of themselves and their arrest experience using systematic strategies of impression management. In the previous chapter, I presented evidence that the receipt of a DUI arrest clearly represented a stigma, an undesirable blemish on one's identity that offenders attempt to conceal to the greatest extent possible. In seeking to distance themselves from this stigma, offenders commonly include passages pertaining to accountability and responsibility. In these passages, offenders typically relied on a

responsibility-lite strategy. Using the *responsibility-lite* strategy, offenders express partial acceptance of responsibility while simultaneously delegitimizing other aspects of the arrest.

In deflecting full culpability for the arrest, offenders challenged law enforcement and the methods used to detect intoxication. Offenders portrayed law enforcement officers as incompetent or intent on making on arrest, while labeling field sobriety tests or BACs biased, subjective, or inaccurate. Other times, offenders suggest other extraneous factors for high BAC readings, including existing medical conditions or contamination from mouthwash or cough drops. In addition to challenging law enforcement, offenders took other strategies to minimize their DUI to portray the deviant and illegal act in the least threatening manner possible. To do so, offenders commonly note there were no injuries or accidents, that they were only driving a short distance or were close to their destination, or that they simply were not impaired. As opposed to being reflective of their true identity, the DUI experience was often described as a rare lapse in judgment, supported with evidence of otherwise clean driving and criminal records. In other narratives, offenders criticize the magnitude of negative formal and informal DUI sanctions. Reflecting the final noted theme, offenders turned to reddit to seek assistance. Offenders sought general and legal advice, as well as how to seek leniency or reduced sentencing.

CHAPTER VII

DISCUSSION OF FINDINGS

Despite substantial declines in impaired driving since the 1970s, estimates indicate that it contributes to 17,000 lives lost annually, in addition to significant economic losses. Consistent with previous literature, men and younger individuals are the highest risk to drive under the influence; however, limited research has explored the specific pathways that drive this association. The few that have specifically examined these mechanisms utilized only underage drinkers or represented limited geographical spaces. Other studies have focused strictly on the identification of DUI predictors, and have identified behavioral indicators including general and binge alcohol consumption, as well as cognitive indicators including perceptions of risk, global attitudes toward DUI, and tolerant social networks as being associated with impaired driving. Although the majority of impaired driving literature is quantitative, several studies utilizing qualitative approaches have also explored important DUI predictors, with findings largely supporting those conducted with quantitative methods.

An identified limitation in the literature to date is the tendency to analyze relationships among sociodemographic groups, behavioral and cognitive protectors, and impaired driving separately. As noted by Ross ([1984](#)), research in the area has been largely atheoretical and has instead focused on identifying the groups most at risk of impaired driving, without elaborating on or theorizing as to why these relationships exist. Still others have identified the mechanisms

through which impaired driving operates, yet have not examined how these mechanisms may differentially influence impaired driving amongst specific sub groups.

Thus, this dissertation served a variety of purposes. Given the limitations and distinct strands of research noted above, I synthesized and extended previous literature on impaired driving by specifically examining several established pathways known to predict DUI. In addition to direct associations between at risk populations including youth, men, and the less educated, I examined a variety of indirect pathways which fully or partially mediate the association with impaired driving. Incorporating detailed statistical analyses, and backed by literature on gender, age, and education better elucidated why men, youth, and individuals with less education are more likely to acknowledge impaired driving.

Using quantitative data from the 2008 wave of the National Survey of Drinking and Driving Attitudes and Behaviors, I sought to how sociodemographic groups differ in their likelihood of impaired driving and to identify the ways in which cognitive and behavioral predictors mediate associations between sociodemographic groups and impaired driving. I conducted these analyses under a broad frame of Social Learning Theory and the Theory of Planned Behavior. Further, I informed hypotheses using literature from sociology, public health, substance use, and several others. I hypothesized that individuals from sociodemographic groups at higher risk for impaired driving (e.g., younger drinkers, men, White, less educated, lower income) would report greater alcohol consumption and would be more likely to report binge drinking. Regarding cognitive indicators, I hypothesized that individuals from sociodemographic groups at higher risk for impaired driving would perceive impaired driving as less risky (low likelihood of police contact or accident), as less threatening to their own or their families' safety,

and would be more likely to experience situations where a close contact had planned to drive while intoxicated (a socially tolerant network).

In addition to the analyses detailed above, I estimated identical paths with an alternative outcome variable measuring driving after drinking. Considering the results of previous studies and my own qualitative content analysis of reddit narratives, it is clear that individuals are often either not truthful in reporting their level of impairment or are unable to accurately assess their own impairment in relation to the established threshold for BAC. I also estimated a multivariate linear regression model to explore whether or not structural, behavioral, or cognitive predictors might systematically bias impairment assessment.

Additional analyses examined individuals arrested for driving under the influence of alcohol. Despite a low likelihood of actually being arrested while driving impaired, over 1 million individuals are arrested annually ([Beitel et al., 2000](#); [FBI, 2016](#)). To further supplement the literature, I performed an extensive qualitative content analysis on over 600 narratives from DUI offenders posted to reddit. Few analyses in the previous literature have relied on DUI offenders. This novel data source provided a wealth of data on how the receipt of a DUI arrest affects individuals and illustrated a variety of strategies offenders use to manage this new stigma.

In analyzing DUI offender narratives from reddit, I sought to answer several questions. First, *how do impaired drivers respond to DUI arrests?* In addition, and given the use of early SI thinkers to frame analyses, I thought to determine the ways in which DUI offenders practice impression management when describing their DUI experience. Further, how do DUI offenders perceive their own culpability for their unique DUI arrest?

In conducting both bivariate and path analyses, I aimed to address two primary research questions. First, I sought to determine the extent to which associations between sociodemographic groups at high risk of impaired driving were mediated by a set of theoretically driven cognitive and behavioral predictors. Prior to considering any partial or full mediation, it was imperative to first identify which groups were at the highest risk for impaired driving. Analyses indicate that males and younger individuals are more likely to drive impaired than are females and older individuals. Similarly, an indirect association between education and impaired driving, in which individuals with less education are more likely to acknowledge DUI, is in accordance with previous studies. Findings from this study extend impaired driving literature with an examination of the pathways through which these relationships exist, and whether or not greater likelihood of DUI amongst specific sociodemographic groups was a function of full or partial mediation through a set of behavioral or cognitive mediators. For individuals age 16 to 20, the effects of age on impaired driving were fully mediated through binge drinking and monthly consumption. For individuals age 21 to 24, the age group at highest risk, this association was partially mediated through binge drinking, monthly consumption, and more tolerant social networks. Binge drinking also mediated the association between age 25 to 34 and impaired driving. For individuals over age 55, with the lowest likelihood of impaired driving across all ages, the association is partially a function of less binge drinking and less tolerant social networks.

For men, at much higher risk of impaired driving than women in previous literature and in the present analyses, the association is partially a function of greater likelihood of binge consumption, greater monthly consumption, and perceptions that impaired driving is less threatening. Lastly, binge drinking, global attitudes towards DUI, and socially tolerant networks

fully mediated the negative relationship between educational attainment and self-reported impaired driving.

There are many important takeaways from DUI offender narratives on reddit. In framing the analyses, I argued that the receipt of a DUI arrest runs parallel to Goffman's (1986) discussion of stigma, an undesirable blemish on one's character, which excludes individuals from full social participation. Emerging themes provided evidence in support of this claim. Commonly included in offender narratives were concerns or fears regarding the consequences of the arrest, including the loss of employment or educational opportunities, the loss of autonomy due to loss of driver's license, jail, financial burdens, or fear that others would learn of their arrest. A second theme was the expression of often strong emotional responses, which were typically negative. Offenders commonly included references to fear, anxiety, shame, confusion, sadness, depression, anger, and "losing it."

Given the powerful stigmatizing effect of a DUI, offenders use reddit as a digital front stage for multiple purposes. reddit represents a digital stage where offenders can attempt to redefine and re-interpret aspects of the arrest. In practicing impression management, offenders used specific and systematic strategies to minimize their culpability for the arrest and present an image of someone less deserving of the full stigmatizing effect of the DUI. To minimize their role in the process or simply attempt to delegitimize portions or the entirety of the arrest experience, offenders commonly challenge law-enforcement, referencing officer incompetency, deception, or just being out to get them. Offenders also challenged the validity of breathalyzer or field sobriety tests, attempting to challenge their actual level of impairment. Offenders also attempted to minimize their DUI through the inclusion of passages representing their unique

DUIs the least threatening as possible. Individuals regularly did this by stating they did not get into an accident, noting the short distance they drove or their proximity to their destination, or simply blamed external factors. In further seeking to invoke an image of reduced culpability, offenders noted their clean driving records or valorized themselves and their cooperation during the arrest.

A final theme that emerged from the narratives was seeking assistance. This assistance seeking commonly was general solicitation, asking for thoughts or advice from similarly stigmatized individuals. They also asked for legal advice, asking whether a lawyer is a necessity or how much legal representation costs. Offenders also commonly asked for advice on how to secure reduced sentences or consequences or how the arrest might influence their employment or educational pursuits. Less commonly, offenders sought hope or encouragement.

Revisiting Hypotheses

National Survey of Drinking and Driving Attitudes and Behaviors

In analyzing data from the National Survey of Drinking and Driving Attitudes and Behaviors, I aimed to address two primary research questions. First, I sought to determine how sociodemographic groups differ in their likelihood of impaired driving. I hypothesized that *males will be more likely to self-report impaired driving than are females (H1); youth and young adults (ages 34 and younger) will be more likely to self-report DUI than are older adults (H2); White respondents will be more likely to drive impaired than Black respondents and respondents classified as another race (H3); individuals with lower educational attainment will be at greater risk for DUI than individuals with higher educational attainment (H4); individuals with lower income will be at greater risk for DUI than individuals with higher income (H5).*

Second, I sought to determine the ways in which cognitive and behavioral factors mediate the relationship between sociodemographic groups and impaired driving. In guiding analyses for this question, I hypothesized that *individuals at higher risk of DUI will be more likely to report binge drinking than those at lower risk (H6); individuals at higher risk of DUI will report greater monthly alcohol consumption than those at lower risk (H7); individuals in groups at higher risk of DUI will hold more positive global views of DUI than those at lower risk (H8); individuals in groups at higher risk of DUI will view DUI as less risky (lower likelihood of accidents or contact with law enforcement) than those at lower risk (H9); and individuals in groups at higher risk of DUI will have more social support for DUI from their peers than those at lower risk (H10).*

A first step in addressing hypotheses was to identify the groups most at risk of DUI. Analyses indicated males, younger individuals, and less educated individuals were most at risk for DUI. These same subgroups have been consistently identified in previous literature, regardless of a variety of items used to measure impaired driving. I found evidence to support H1. Specifically, my analyses provide further evidence that males are at greater risk for DUI than are females, in line with research from Flowers et al (2008), Sloan et al (2013), Delcher et al (2013), and Amlung (2016). Additionally, there was evidence to support H2. I identified younger individuals to be at greater risk of DUI than were older individuals, consistent with findings from Voas (1998), Flowers et al (2008), Quinlan (2005), and Williams (2006). Although less consistent in existing literature, the inverse association I found between education and impaired driving, in which individuals with less education were more likely to report impaired driving, was similar to findings from Sloan et al (2013). This provided support for H4. Controlling for the

effects of other indicators in multivariate models, there was no association between race or income and self-reported impaired driving. As a result, I found no support for H3 or H5.

With the identification of these groups at the highest risk of DUI, I was able to examine the specific pathways through which these associations operate. In first considering the mediating role of cognitive predictors, I hypothesized that a higher likelihood of impaired driving for high risk groups was because these groups perceived impaired driving as less risky (H9). There was no evidence to support this hypothesis in the path analysis. However, there was evidence that other cognitive predictors had a mediating role. The association between being male and impaired driving was partially mediated through global attitudes of impaired driving, in the direction hypothesized (H8). Both males and individuals with less education perceived impaired driving as less threatening, resulting in a positive indirect effect between these at risk groups and impaired driving, operating through this indicator for global attitudes. I found partial support for H8. Although this hypothesized relationship held for males and individuals with less education, this was not the case for youth.

Finally, I considered an individual's social networks as a more proximate contextual cognitive predictor, hypothesizing that individuals housed in networks with more tolerant views on impaired driving would be more likely to self-report DUI (H10). This network tolerance of DUI was the most commonly identified cognitive predictor, and the effects were in the anticipated direction. For individuals age 21 to 24, the group at highest risk for DUI, the association between age and DUI was partially mediated through socially tolerant networks. As a positive indirect effect, there is evidence to support the claim that part of the increased likelihood of DUI among individuals aged 21 to 24 is due to the fact that individuals in this age group are

more likely to have networks who have also driven while impaired. In contrast, individuals age 55 and older were statistically less likely to drive impaired than were the reference group (ages 35 to 54), and analyses indicate this was partially mediated through less tolerant social networks. Considering education, there was a positive effect of tolerant social networks, indicating more tolerant networks were associated with a greater likelihood of DUI. Given the significance of tolerant social networks for some at risk groups but not others, there is evidence to partially support H10.

In the analyses, the cognitive predictors operated in conjunction with behavioral predictors, including binge consumption and monthly alcohol consumption. Given established links between binge drinking and quantity of alcohol consumed and impaired driving ([Everett et al., 1999](#); [Fairlie et al., 2010](#); [Flowers et al., 2008](#); [Grube & Voas, 1996](#); [Sloan et al., 2013](#)), I hypothesized that individuals from high risk groups would report greater monthly alcohol consumption (H7) and would be more likely to report binge drinking (H6). First, considering H7, I found partial support. For males, who were at greater risk of DUI than were females, monthly consumption had a positive indirect effect on impaired driving. This was also true for underage drinkers and college age drinkers (aged 21 to 24), at particularly high risk for DUI compared to the reference group (individuals aged 35 to 54). This means that part of the association between gender, youth, and DUI can be attributed to differences in the amount of alcohol consumed, and that males and youth are at a greater risk partially because they drink more alcohol.

Perhaps not surprisingly, binge drinking also plays an important mediating role in the association between high risk sociodemographic groups and impaired driving, providing support for H6. For each high-risk group, binge drinking had a significant mediational effect. For men

and for each age classification younger than the reference group, the association to impaired driving was partially due to differences in binge drinking. For men and younger individuals, high risk of impaired driving was partially an effect of a greater likelihood of binge drinking. In contrast, a lower likelihood of binge drinking among individuals in the oldest age category (55 and older) was partially responsible for lower rates of impaired driving amongst this group. This same pattern persisted when looking at the relationship between education and impaired driving as well. Path analyses showed that additional educational attainment is associated with a decreased likelihood of binge drinking, which is associated with a lower likelihood of impaired driving.

In framing these analyses of impaired driving, I drew heavily from Social Learning Theory ([Akers, 1985, 1990](#)) and the Theory of Planned Behavior ([Montaño & Kasprzyk, 2008](#)). Although each of these theories was beneficial to inform analyses and models, it is important to note that neither represented an ideal fit with measures from the National Survey of Drinking and Driving Attitudes and Behavior. Social Learning Theory emphasizes the learned nature of behaviors, whether deviant or conforming. Cognitive schema and stimuli and cues are formed through a cumulative process of differential association and differential reinforcement ([Akers, 1990](#)). Stated another way, interactions with others provide individuals with unique combinations or reinforcements, whether positive or negative, regarding specific behavior. Over time, this reinforcement strengthens our definitions and cognitive schema or necessitates a sort of modification. Further, Social Learning Theory is based upon the utility premise, in which action is based in part on rational calculations of expected cost or benefit ([Akers, 1990](#)).

My data and models allow for a test of several components of social learning theory. First, the indicator for tolerant social networks serves as a measure of differential association. Considering the premise of SLT, it would be argued that individuals who associate with individuals who are tolerant of impaired driving would have developed more favorable definitions and attitudes towards it, through cumulative differential reinforcement. In supplementary analyses, not previously discussed, I do find evidence in support of this. In bivariate analyses, individuals with more tolerant social networks were more likely to view impaired driving as a minor threat than were individuals without tolerant networks. Main analyses provide further support of the importance of networks and global attitudes (indicative of cognitive schema and definitions) in self-reports of impaired driving as well. Considering important effects of age on impaired driving, the influence of social networks was an important mediating effect. For university age populations, part of the increased risk for impaired driving could be explained by their membership in more tolerant networks. For older adults (55 and older), at less risk for DUI, membership in less tolerant networks was partially responsible for the reduced risk. Global attitudes were only significant as mediators for males and for educational attainment. In both cases, indirect effects operating through global attitudes were positive. For both men and those with more education, impaired driving was viewed as less threatening.

To extend my primary models, with impaired driving as an outcome variable, I estimated and presented two similar and supplementary models. Given the potential of systematically biased estimates, stemming from variance in subjective impairment assessment, I estimated an alternate model identical to the path analysis examined for impaired driving, but with a measure of driving after drinking as the outcome. With a few exceptions, most differences between DUI

and driving after drinking models were for younger respondents. Differences in mediational effects were through risk perceptions. These differences are interpretable with the framework of SLT and TPB. Considering both direct effects and total effects, estimates for DUI models indicate younger respondents were at greater risk than were older respondents, which did not hold in driving after drinking models. It is reasonable to attribute this difference to a willingness of youth to acknowledge and self-report DUI in part because they have more favorable opinions on it than do older individuals. The driving after drinking indicator simply does not carry the same stigmatizing and negative connotation as does reporting actual impairment. To interpret in the verbiage of both SLT and TPB, it is possible that the definitions and cues younger individuals have of impaired driving are more favorable than those held by older individuals. Younger respondents see it as less threatening and have networks that are more supportive of it so they might be more willing to acknowledge it than are older individuals.

The other consistent difference in models was for the mediating role of risk perception. Risk perception failed to reach statistical significance as a mediator for any relationships in the DUI model. Yet, it represents a significant mediational path between age 21 to 24 (negative), 25 to 34 (negative), male (positive), and education (positive) and driving after drinking. I interpret these differences with the utility framework in mind. Individuals who perceive the likelihood of being obtained by police or having an accident after having too much to drink to drive safely would simply be less likely to drive after drinking, much less drive while subjectively impaired. In other words, rational choice models, including SLT and TPB, would suggest that for individuals who drive impaired, risk perception is simply not a particularly relevant factor. For individuals who might be particularly concerned about contact with the police, this does serve as a distinguishing factor for those who drive after drinking from those who do not. In other words,

risk perception is only capable of distinguishing people at extremes- those who are not willing to take any risk from driving after drinking from those who are. Risk perception is not capable of distinction for those who may drive after drinking from those who drive impaired.

reddit Analyses

In analyzing DUI narratives from reddit, I sought to address several novel questions. Broadly, I aimed to examine how DUI offenders respond to DUI arrests? Specifically, what aspects of the experience are generally included in narratives? Second, and integrating contributions from early symbolic interactionist thinkers with recent and digital internet forums, I sought to examine the ways which DUI offenders perform impression management when describing their DUI experience. Lastly, I sought to determine how DUI perceive their own culpability for their unique DUI arrest. Results from an explorative and extensive qualitative content analysis provide answers to these questions.

From a sample of over 600 DUI offender narratives, I found that offenders speak of their DUI in a relatively systematic manner, with many including similar components, in accordance with Goffman's (1986) discussion of the receipt of a stigma. Commonly included were expressions of fear or concern regarding the consequences of their DUI, including concerns of jail, loss of employment or future opportunities, loss of autonomy, or the financial burden imposed from extensive fines or legal counsel. In addition to the expression of fear or concern, other emotional responses were commonly included, indicating the significant mental and emotional toll imparted from a DUI arrest. Respondents indicated confusion, regret, embarrassment, sadness or depression, shame, or guilt. Only rarely were emotional responses

positive, and these generally included references to gratitude that their DUI did not result in any injuries or was not any worse than it was.

Respondents also included other elements, seemingly intentionally, in their attempts to grapple with their own accountability and responsibility for the arrest in a practice of online impression management ([Goffman, 1959](#)). I argue that this online impression management, conducted anonymously on reddit, is part of a lengthier process of identity work that offenders perform to balance the receipt of a recent DUI back in accordance with their self-perception. In doing this, offenders commonly call attention to specific elements of the DUI experience that they can use to highlight their minimal responsibility or culpability in the arrest. In doing so, damage to one's identity can be minimized. Included in these efforts at impression management are references to the amount of alcohol consumed, the reason for contact with law enforcement, and challenges to BAC or field sobriety results. In conjunction with these attempts at impression management, offenders use the narratives to seek assistance. Because construct narratives in a way that minimizes full culpability, offenders often ask the audience for advice or assistance to limit or reduce the sanctions associated with the arrest.

Synthesizing Quantitative and Qualitative Findings

Quantitative and qualitative findings are largely consistent and suggest the prediction of and practical implications for addressing DUI are multi-dimensional. In other words, multiple factors contribute to being at high-risk for impaired driving. Behavioral predictors play a prominent role across all analyses. Given the necessary role of alcohol as a precedent to alcohol impaired driving, results indicating both binge drinking and monthly alcohol consumption are predictive of impaired driving is not surprising. Findings from the National Survey of Drinking

and Driving Attitudes and Behaviors indicate these behavioral predictors serve to mediate the relationship between early adulthood, being male, having low educational attainment and impaired driving. It is because respondents in these groups consume more alcohol and have a greater likelihood of binge drinking which partially explains why they are at high risk of DUI. For DUI offenders, these same behavioral predictors play an important role in narratives. Although many offenders make vague references to their consumption, thus calling into question their true level of impairment and culpability, others describe heavy drinking prior to contact with police officers. Other offenders, and more commonly men, call attention to heavy consumption in general, consistent with scholars who have noted the use of alcohol as a means of solidifying their own masculinity ([Connell & Messerschmidt, 2005](#)).

Further, existing literature suggested cognitive factors would predict DUI, and this was confirmed in both quantitative and qualitative analyses. In quantitative analyses, global attitudes towards DUI and having tolerant social networks was more predictive of impaired driving than was risk perception. Qualitative analyses more clearly elucidated the effects of cognitive predictors on DUI, and risk perception was more apparent in these analyses as well. In discussing accountability and responsibility, offenders aimed to minimize impaired driving, portraying their unique experience in the least threatening manner possible, similar to respondents from the NSDDAAB who reported that impaired driving represented a minor threat or no threat at all. In addition, offenders situate their DUI experience within what they feel is an ordered nature to DUI, noting when there was no accident or injuries.

Similar to quantitative findings that social networks were important, reddit DUI narratives commonly referenced a social nature to both alcohol consumption and DUI.

Commonly, alcohol consumption preceding the DUI experience was part of some shared social gathering, whether for celebratory purposes or just to meet up with friends. Offenders most often reported drinking at public establishments including restaurants, bars, or concert venues. Other times, offenders mentioned that the only reason they chose to drive was because someone else in their party was too intoxicated to drive. In other narratives, offenders cited their own peers who could testify to their own minimal impairment at the time of the arrest, insinuating that friends did not object to their impaired driving.

An important novel contribution of my analyses pertains to rationality and risk perception. As previously mentioned, both Social Learning Theory and the Theory of Planned Behavior rely on the notion of rational calculation of anticipated rewards or sanctions from behaviors. In my analyses, I included three unique cognitive indicators as sources of sanction or reward, including the self (global attitudes) more formal sources including law enforcement (risk perception) and the perceptions of others (tolerant social networks). This framework seems to align adequately with findings from quantitative models, where more negative cognitive perceptions were associated with a lower likelihood of impaired driving with the exception of risk perception. Yet even the negligible impact of risk perception can be explained by contributions from Akers, who argued that given the low likelihood of formal sanctioning for deviant behaviors, they may play a more distant role than other factors. However applicable to other deviant behaviors, models based on the utility premise and rational choice are not always congruent with impaired driving for multiple reasons. First and foremost, alcohol is an impairing substance which has deleterious consequences for mental and physical functioning. In that sense, any rational calculations performed, if any, are based on a sense of limited rationality which is likely clouded from the effects of alcohol. Further, some DUI offender narratives from reddit

suggest a limited utility of rational choice models for at least some impaired driving experiences; these offenders recall only minimal events of their night, have no clue what may or may not have informed their decisions to drive while impaired, and only have recollection of ‘snapping’ out of their state of “blackout.” With these more extreme cases, the use of rational choice models including SLT and TPB have limited utility.

Outside of these more extreme cases, rational choice and conscious calculation of perceived risk and reward was common in offender narratives, even if discussed retroactively. In calculating risk, offenders often noted how much they drank, also sharing the time over which this consumption occurred. Additionally, commonly used phrases such as “I felt fine” suggest impairment was assessed prior to driving, as were references to space to provide evidence that they were minimally impaired. Offenders commonly described steps they took to sober up, suggesting conscious thought processes to minimize risk. Outside of assessment of risk, offenders indicate several ‘rewards’ or push factors for DUI, including needing to drive home for work early the next morning, impending inclement weather, or the avoidance of parking tickets. Risk perception of police and accidents, although not a significant mediator in conducted quantitative analyses, was apparent in narratives was cited in previous literature on underage impaired drivers, who were cognizant of routes that would minimize the likelihood of police contact ([Nygaard et al., 2003](#)).

Analyses from the National Survey of Drinking and Driving Attitudes and Behaviors and reddit DUI narratives necessitate additional consideration of *impairment*. With supplemental analyses from the NSDDAAB, I found variance in the number of drinks respondents felt as though they could consume prior to it being unsafe to drive, or before they reached impairment.

This indicator of subjective impairment assessment varied across demographic groups, cognitive, and behavioral predictors. In full models, males and individuals aged 21 to 24 reported a higher consumption threshold prior to impairment compared to females and the references age group (35 to 54 years old). This indicator of subjective impairment was also associated with global attitudes, with individuals who felt DUI was more threatening predicted to have a lower threshold. Individuals with more tolerant social networks were predicted to report the ability to consume more drinks prior to impairment than those with less. Lastly, both behavioral indicators, binge consumption and monthly consumption, were associated with a higher threshold of drinks prior to impairment. Analyses of reddit, however, point to clear issues with using an individual's subjective assessment as a true measure of impairment. In DUI narratives, offenders commonly referenced how they felt minimally impaired, or more commonly 'felt fine', yet later reported registering a BAC in excess of the objective legal limit. This can be interpreted in several ways: 1) individuals, or specifically DUI offenders, are not able to accurately assess their own level of impairment as it relates to the objective threshold for impaired driving, and 2) the established objective threshold is inconsistent with individuals' assessment of their ability to properly operate a motor vehicle.

Limitations and Future Directions

These findings are consistent with much of social learning theory ([Akers, 1985, 1990](#)), although available indicators are not optimal. Above, I reviewed findings that suggest an association between cognitive schema and meaning. Further, supplementary analyses indicated more tolerant views of DUI (i.e., viewed as less threatening) were associated with membership in networks which are more tolerant of DUI. Yet, the use of a global measure of DUI attitudes as represented by a single dimension (its level of threat to significant others) potentially overlooks

other meanings and definitions of DUI. Additionally, social learning theory contends that definitions and cues that precede and inform behavior are developed cumulatively over time and through differential association and differential reinforcement from others. Data preclude sufficient consideration of this core tenet. Although there are measures which represent differential association (tolerant social networks) and differential reinforcement (global attitudes), the data itself is cross sectional.

This is problematic for several reasons. First, in no way do the measures indicate or allow for any examination of cumulative effects of differential association or reinforcement over time, or how definitions and cognitive schema change in response to these factors. Second, and related, is an inability to assign any causal direction to this association. One could also argue that cognitive schema and cues regarding impaired driving are also shaped by previous experiences, and the SLT framework is consistent with this. Despite the assumption that agency is informed by socially developed meanings, SLT would contend that definitions associated with deviant behavior are modified as part through an iterative and ever evolving process. Therefore, I argue that additional experience with impaired driving, in the absence of formal or informal sanctions, may serve to legitimize the behavior. Given the likelihood of contact with law enforcement is low, even with an illegal BAC, additional impaired driving trips (the deviant behavior) may serve as an impetus to modify existing definitions pertaining to DUI in the event there are few, if any, formal and informal sanctions. Rather, the deviant nature of impaired driving may be modified with the receipt of positive reinforcement for the act. This positive reinforcement could be as simple as arriving safely at the intended destination with no accidents or police contact, or praise from peers ([Basch et al., 1989](#)). DUI narratives on reddit commonly mentioned similar

processes, where their previous experiences with impairment and DUI had informed their abilities to assess their fitness to drive.

As illustrated in Figure 2.1, I proposed that behavioral and cognitive predictors influenced impaired driving outcomes. Future analyses and models may benefit from consideration of one or more reciprocal relationships amongst these variables. It seems plausible that impaired driving outcomes, whether sanctioned or not, would certainly feed back into and inform the included cognitive predictors. Additionally, there is a high likelihood of a reciprocal relationship between cognitive and behavioral predictors, where individuals' drinking behaviors or cognitive perceptions may be associated with the other as part of an iterative process. As such, future studies examining similar processes would benefit from the use of longitudinal data. With appropriate indicators, these multiple and complex relationships could be examined across time, which would allow for more confidence in the assignment of causality as well.

I also framed analyses using the Theory of Planned Behavior ([Montaño & Kasprzyk, 2008](#)), which has been previously used in impaired driving analyses. Similar to the above discussion of Social Learning Theory, included measures in the National Survey of Drinking and Driving Attitudes and Behaviors were not in complete alignment with core constructs of Theory of Planned Behavior. Sharing other components with SLT, Theory of Planned Behavior has an underlying assumption in rational choice and utility premise models, where human action is formed in response to some conscious calculation of anticipated rewards and sanctions. The Theory of Planned Behavior asserts that intentions to perform a behavior are the strongest predictor of the behavior. These intentions are developed in response to attitudes, subjective

norms, and perceived behavioral control, which are shaped by demographic membership including age, gender, and education.

In my models, two cognitive indicators align with attitudes, which TPB includes as a general evaluation of the act. The risk perception and global attitudes indicator represent this construct. Subjective norms, indicating approval or disapproval of an act by others, is represented by a tolerant social network item. Perceived behavioral control refers to how easy or difficult the behavior would be to accomplish successfully ([Montaño & Kasprzyk, 2008](#)). Although there was an item available to represent this indicator, it was not included in final models given its unique relationship to the primary outcome variable. Specifically, this indicator asked respondents about the number of alcoholic drinks they could consume before it was unsafe to drive. A greater response would be indicative of greater perceived behavioral control, which was predicted to be associated with a greater likelihood of self-reporting impaired driving. However, given the subjective assessment of impairment of the outcome variable, the inclusion of this indicator of perceived behavioral control is ill advised, as individuals who felt as though they could consume more alcohol prior to it being unsafe to drive would likely underestimate their own impaired driving.

I note several limitations from reddit analyses. Unfortunately, most narratives fail to explicitly reference key demographic markers. Offenders commonly include their age and the state where the infraction occurred, but do not regularly include indicators for gender, race, socioeconomic status, or other sociological variables of interest. As such, I was unable to consider how narratives vary across these markers. Sociological literature on alcohol consumption and risk indicate this is an area worthy of future study. The few narratives which

make specific mention of gender provide evidence of this; consistent with previous literature, offenders situated their consumption and level of impairment using gender. Male offenders mentioned their consistent and heavy consumption, regularly appearing proud of their alcohol tolerance to challenge an illegal or high BAC reading. In contrast, and in line with the female gender role, women cited their small physical stature, naiveté, and rarity of consumption to explain a high BAC or to show how easily they could obtain an illegal BAC despite minimal consumption. Future studies could benefit from collecting this information. This could be done in several ways, including reaching out to the account associated with the narrative to request additional key demographic information. This would of course require interaction with study participants and would be subject to IRB approval.

An additional potentially fruitful area of future inquiries would be to analyze similar qualitative data guided by Sykes and Matza's (1957) concept of *techniques of neutralization*. Similar to the micro-sociological impression management framework used in the current analyses, techniques of neutralization refer to a range of justifications and rationalizations for deviant behavior that individuals use that serve to limit blame or sanctioning from the self or greater society. Similar to what I previously argued in regards to DUI offenders' use of strategic impression management, the use of techniques of neutralization allow offenders to avoid full culpability for deviant behavior and thus minimize negative sanctions (Sykes and Matza 1957). Sykes and Matza (1957) reference five major types of neutralization techniques, including denial of responsibility, denial of injury, denial of the victim, condemnation of the condemners, and the appeal to higher loyalties. Offenders' retrospective accounts of their DUI arrest and the preceding events as posted on reddit support the utility of this framework in future analyses; offenders commonly attempted to minimize culpability before the arrest with references to their

perceived sobriety or confidence in their driving abilities prior to and while driving. After the arrest, offenders used techniques of valorization and challenged law enforcement or other aspects of the arrest experience to minimize culpability. Similar future studies might benefit from the incorporation of this widely used theory of deviant behavior.

The use of unobtrusive data, in the form of rich qualitative narratives from reddit, represents a strength of the project in that my presence in no way influences the collected data. However, this same method of data collection presents a limitation as well; the use of this unobtrusive data precludes the option of probing or clarification of anything that is unclear. I have argued that the systematic manner in which offender narratives are generated represent an intentional and multi-faceted attempt to modify meanings associated with their impaired driving arrest. In performing a digital impression management, I argued that specific strategies to minimize responsibility for the DUI arrest represent attempts to present the self in a way which is consistent with their own idealized conception of self and to portray themselves in the most positive manner possible. This approach is congruent with efforts to reduce the stigma associated with a DUI arrest. Although I offer sufficient evidence to support this argument, future studies could use these findings to develop an interview guide to be used on recent DUI offenders, which would allow for further probing and inquiry to explore processes of impression management and identity work among DUI offenders.

Both quantitative and qualitative analyses indicate sociological theory can serve to inform impaired driving analyses, which serves to address criticism from Ross. According to both SLT and TPB, behaviors are shaped by relevant socially formed attitudes and definitions ([Akers, 1990](#); [Montaño & Kasprzyk, 2008](#)). Additionally, other scholars have identified

behavioral predictors such as alcohol consumption as important predictors of DUI. The inclusion of sociological literature helps to inform atheoretical work which consistently find specific groups at high risk for impaired driving. As such, the inclusion of sociological scholarship and theory can serve to reinvigorate impaired driving studies by positioning important socio-structural markers such as age, gender, race, and measures of socioeconomic status at the center of analyses, as opposed to including them as control variables.

Conclusion

The damages associated with impaired driving have been consistently documented in previous studies. Previous studies have also identified both at risk groups, most notably males, young adults, and individuals with lower educational attainment. In addition to the identification of at risk groups, extant literature has linked behavioral and cognitive factors to impaired driving, including binge drinking, general alcohol consumption, risk perceptions, global attitudes, and social networks. The few studies which have examined these factors in mediational models have been limited primarily through the use of underage drinkers and from limited geographies. To extend and improve upon these previous studies, I estimated a series of path analyses using data from the nationally representative 2008 National Survey of Drinking and Driving Attitudes and Behaviors. From these series of analyses, I identified males, younger adults, and individuals with less education as being higher risk for self-reported impaired driving. Further, the estimation of indirect effects indicates several specific pathways which link high risk groups to impaired driving. In summary, these groups are at greater risk because they drank more alcohol, were more likely to acknowledge binge drinking, viewed DUIs as less threatening, and had social networks that were more tolerant of DUI than their lower-risk counterparts.

Following these analyses, I sought to examine identity work and impression management associated with a DUI arrest. Although previous studies indicate a low likelihood of actually being arrested if driving with a BAC in excess of the legal limit, more than one million individuals are arrested annually for impaired driving. Using novel data from reddit, I conducted an extensive qualitative content analysis on over 600 DUI narratives containing often rich details of offender arrest experiences. As data collection process was unobtrusive, the content reflects only what the offender wished to share, or thought was meaningful or important about their DUI experience. Multiple themes emerged from these narratives, including fear of the consequences, emotional response, accountability and responsibility, and seeking assistance. In summary, and consistent with Goffman's discussion of stigma, offenders regularly mentioned fear of some form of social exclusion, whether termination of employment, loss of autonomy, or a range of other concerns. Offenders expressed a variety of negative emotional responses endured since the arrest, including shame, guilt, embarrassment, and feeling like they had 'lost it.' The DUI arrest experience was clearly not a pleasant experience, as other offenders mentioned symptoms of depression or thoughts of suicide. When discussing their own accountability and responsibility for the arrest, offenders used multiple strategies to challenge the legitimacy of the arrest, in ways that minimize culpability for the experience. These include challenging law enforcement, questioning field sobriety or breathalyzer results, techniques to minimize the real danger of their unique DUI, and even the use of their own extreme impairment to deflect responsibility. Lastly, offenders used the narratives to seek assistance, most commonly to ask about what penalties could be expected or how to secure reduced sentencing.

These individual studies contribute to the larger body of literature on impaired driving, and deviance more broadly, with a more thorough analysis of the 'why.' As stated, the

identification of men, youth, and those with less education as high risk for DUI is consistent with previous literature. Yet, this study represents an extension in examining the pathways through which this relationship exists. The qualitative content analysis contributes not only to the newly emerging field of digital sociology, but represents an application of classical sociological concepts (e.g. stigma, impression management) with novel sources of data. Substantively, the analyses provide further evidence of how a DUI affects offenders and could inform practitioners and intervention administrators regarding specific strategies offenders use to manage their identities post-arrest.

REFERENCES

- Akers, R. L. (1985). *Deviant behavior: A social learning approach*: Wadsworth Publishing Company.
- Akers, R. L. (1990). Rational choice, deterrence, and social learning theory in criminology: The path not taken. *J. Crim. L. & Criminology*, 81, 653.
- Alexa Internet. (2019). Top Sites in United States. Retrieved from <https://www.alexa.com/topsites/countries/US>
- Alexander, M. (2012). *The new Jim Crow: Mass incarceration in the age of colorblindness*: The New Press.
- Amlung, M., Morris, D. H., Hatz, L. E., Teeters, J. B., Murphy, J. G., & McCarthy, D. M. (2016). Drinking-and-Driving–Related Cognitions Mediate the Relationship Between Alcohol Demand and Alcohol-Impaired Driving. *Journal of studies on alcohol and drugs*, 77(4), 656-660.
- Anderson, P., & Anderson, P. (2006). Global use of alcohol, drugs and tobacco. *Drug and alcohol review*, 25(6), 489-502.
- Bakan, D. (1966). *The duality of human existence: An essay on psychology and religion*.
- Bales, R. F., & Parsons, T. (2014). *Family: Socialization and interaction process*: Routledge.
- Basch, C. E., DeCicco, I. M., & Malfetti, J. L. (1989). A focus group study on decision processes of young drivers: Reasons that may support a decision to drink and drive. *Health Education Quarterly*, 16(3), 389-396.
- Beitel, G. A., Sharp, M. C., & Glauz, W. D. (2000). Probability of arrest while driving under the influence of alcohol. *Injury Prevention*, 6(2), 158-161.
- Berger, D. E., & Snortum, J. R. (1986). A structural model of drinking and driving: Alcohol consumption, social norms, and moral commitments. *Criminology*, 24(1), 139-154.
- Berger, J., Conner, T. L., & Fisek, M. H. (1982). *Expectation states theory: A theoretical research program*: Univ Pr of Amer.

- Bingham, C. R., Elliott, M. R., & Shope, J. T. (2007). Social and behavioral characteristics of young adult drink/drivers adjusted for level of alcohol use. *Alcoholism: Clinical and Experimental Research*, 31(4), 655-664.
- Blincoe, L., Seay, A., Zaloshnja, E., Miller, T., Romano, E., Luchter, S., & Spicer, R. (2002). The economic impact of motor vehicle crashes, 2000. *DOT HS*, 809, 446.
- Bloch, H. A., & Niederhoffer, A. (1958). The gang: A study in adolescent behavior.
- Blumer, H. (1986). *Symbolic interactionism: Perspective and method*: Univ of California Press.
- Boardman, J. D., Finch, B. K., Ellison, C. G., Williams, D. R., & Jackson, J. S. (2001). Neighborhood disadvantage, stress, and drug use among adults. *Journal of Health and Social Behavior*, 151-165.
- Bonilla-Silva, E. (1997). Rethinking racism: Toward a structural interpretation. *American sociological review*, 465-480.
- Borkenstein, R. F. (1985). Historical perspective: North American traditional and experimental response. *Journal of Studies on Alcohol, Supplement*(10), 3-12.
- Bureau of Justice Statistics. (2002). *Criminal Victimization in the United States, 2000*
- Caetano, R., Clark, C. L., & Tam, T. (1998). Alcohol consumption among racial/ethnic minorities: Theory and research. *Alcohol Health & Research World*, 22(4), 233-242.
- Cahill, S. E. (1986). Childhood socialization as recruitment process: Some lessons from the study of gender development. In P. Adler & P. Adler (Eds.), *Sociological studies of child development* (Vol. 1, pp. 163-186). Greenwich, CT: JAI Press.
- Casady, R. J., & Lepkowski, J. M. (1993). Stratified telephone survey designs. *Survey Methodology*, 19(1), 103-113.
- Caspi, A., Moffitt, T. E., Newman, D. L., & Silva, P. A. (1996). Behavioral observations at age 3 years predict adult psychiatric disorders: Longitudinal evidence from a birth cohort. *Archives of General Psychiatry*, 53(11), 1033-1039.
- Centers for Disease Control and Prevention. (2011). Vital Signs: Binge Drinking Prevalence, Frequency, and Intensity Among Adults — United States, 2010. *MMWR: Morbidity and mortality weekly report*, 60(39), 1351-1356.
- Chan, D. C., Wu, A. M., & Hung, E. P. (2010). Invulnerability and the intention to drink and drive: An application of the theory of planned behavior. *Accident Analysis & Prevention*, 42(6), 1549-1555.
- Charmaz, K. (2003). *Strategies of Qualitative Inquiry* (Second ed.): SAGE Publications.

- Charmaz, K., Denzin, N., & Lincoln, Y. (2003). Strategies of qualitative inquiry. *Grounded theory: Objectivist and constructivist methods*, 249-291.
- Cho, J. Y., & Lee, E.-H. (2014). Reducing confusion about grounded theory and qualitative content analysis: Similarities and differences. *The qualitative report*, 19(32), 1-20.
- Clarke, T., Norris, T., & Schiller, J. (2017). *Early Release of Selected Estimates Based on Data From the 2016 National Health Interview Survey*. Retrieved from <https://www.cdc.gov/nchs/data/nhis/earlyrelease/earlyrelease201705.pdf>
- Connell, R. W., & Messerschmidt, J. W. (2005). Hegemonic masculinity: Rethinking the concept. *Gender & society*, 19(6), 829-859.
- Corcoran, K. J., & Thomas, L. R. (1991). The influence of observed alcohol consumption on perceptions of initiation of sexual activity in a college dating situation. *Journal of Applied Social Psychology*, 21(6), 500-507.
- Correll, S. J., & Ridgeway, C. L. (2003). Expectation states theory. In J. Delamater (Ed.), *Handbook of social psychology* (pp. 29-51). New York: Kluwer Academic/Plenum Publishers.
- Cunha, T. O., Weber, I., Haddadi, H., & Pappa, G. L. (2016). *The effect of social feedback in a reddit weight loss community*. Paper presented at the Proceedings of the 6th International Conference on Digital Health Conference.
- Darrow, S. L., Russell, M., Cooper, M. L., Mudar, P. J., & Frone, M. R. (1992). Sociodemographic correlates of alcohol consumption among African-American and white women. *Women & Health*, 18(4), 35-51.
- De Choudhury, M., & De, S. (2014). *Mental Health Discourse on reddit: Self-Disclosure, Social Support, and Anonymity*. Paper presented at the ICWSM.
- Decker, S. H. (1981). Citizen attitudes toward the police: A review of past findings and suggestions for future policy. *Journal of police science and administration*, 9(1), 80-87.
- DeJoy, D. M. (1992). An examination of gender differences in traffic accident risk perception. *Accident Analysis & Prevention*, 24(3), 237-246.
- Delcher, C., Johnson, R., & Maldonado-Molina, M. M. (2013). Driving after drinking among young adults of different race/ethnicities in the United States: unique risk factors in early adolescence? *Journal of Adolescent Health*, 52(5), 584-591.
- DeNicola, E., Aburizaize, O. S., Siddique, A., Khwaja, H., & Carpenter, D. O. (2016). Road traffic injury as a major public health issue in the Kingdom of Saudi Arabia: A Review. *Frontiers in public health*, 4, 215.

- Drew, L., Royal, D., Moulton, B., Peterson, A., & Haddix, D. (2010). *National Survey of Drinking and Driving Attitudes and Behaviors: 2008*. Retrieved from <https://rosap.nhtl.bts.gov/view/dot/1906>.
- Duggan, M., & Smith, A. (2013). 6% of online adults are reddit users. *Pew Internet & American Life Project*, 3, 1-10.
- Eagly, A. H., & Kite, M. E. (1987). Are stereotypes of nationalities applied to both women and men? *Journal of Personality and Social Psychology*, 53(3), 451.
- Eagly, A. H., Wood, W., & Diekmann, A. B. (2000). Social role theory of sex differences and similarities: A current appraisal. In T. Eckes & H. M. Trautner (Eds.), *The developmental psychology of gender* (Vol. 12, pp. 174). Mahwah, NJ: Lawrence Erlbaum.
- Ellison, N., Heino, R., & Gibbs, J. (2006). Managing impressions online: Self-presentation processes in the online dating environment. *Journal of computer-mediated communication*, 11(2), 415-441.
- Elo, S., Kääriäinen, M., Kanste, O., Pölkki, T., Utriainen, K., & Kyngäs, H. (2014). Qualitative content analysis: A focus on trustworthiness. *SAGE open*, 4(1), 2158244014522633.
- Elo, S., & Kyngäs, H. (2008). The qualitative content analysis process. *Journal of advanced nursing*, 62(1), 107-115.
- Erikson, K. T. (1967). A Comment on Disguised Observation in Sociology. *Social Problems*, 14(4), 366. doi:10.2307/798850
- Everett, S. A., Lowry, R., Cohen, L. R., & Dellinger, A. M. (1999). Unsafe motor vehicle practices among substance-using college students. *Accident Analysis & Prevention*, 31(6), 667-673.
- Fairlie, A. M., Quinlan, K. J., DeJong, W., Wood, M. D., Lawson, D., & Witt, C. F. (2010). Sociodemographic, behavioral, and cognitive predictors of alcohol-impaired driving in a sample of US college students. *Journal of health communication*, 15(2), 218-232.
- FBI. (2014). Crime in the United States. *FBI: UCR*. Retrieved from <https://ucr.fbi.gov/crime-in-the-u.s/2014/crime-in-the-u.s.-2014/tables/table-29>
- FBI. (2016). Crime in the United States: 2016. Retrieved from <https://ucr.fbi.gov/crime-in-the-u.s/2016/crime-in-the-u.s.-2016/topic-pages/tables/table-18>
- Finn, P., & Bragg, B. W. (1986). Perception of the risk of an accident by young and older drivers. *Accident Analysis & Prevention*, 18(4), 289-298.
- Flanagan, T. J., & Vaughn, M. S. (Eds.). (1996). *Public opinion about police abuse of force* (Vol. 30).

- Flowers, N. T., Naimi, T. S., Brewer, R. D., Elder, R. W., Shults, R. A., & Jiles, R. (2008). Patterns of alcohol consumption and alcohol-impaired driving in the United States. *Alcoholism: Clinical and Experimental Research*, 32(4), 639-644.
- Ford, E. S., Merritt, R. K., Heath, G. W., Powell, K. E., Washburn, R. A., Kriska, A., & Haile, G. (1991). Physical activity behaviors in lower and higher socioeconomic status populations. *Am J Epidemiol*, 133(12), 1246-1256.
- Gaziano, J. M., Buring, J. E., Breslow, J. L., Goldhaber, S. Z., Rosner, B., VanDenburgh, M., . . . Hennekens, C. H. (1993). Moderate alcohol intake, increased levels of high-density lipoprotein and its subfractions, and decreased risk of myocardial infarction. *New England Journal of Medicine*, 329(25), 1829-1834.
- George, W. H., Gournic, S. J., & McAfee, M. P. (1988). Perceptions of Postdrinking Female Sexuality: Effects of Gender, Beverage Choice, and Drink Payment 1. *Journal of Applied Social Psychology*, 18(15), 1295-1316.
- Gill, J. S., Zezulka, A. V., Shipley, M. J., Gill, S. K., & Beevers, D. G. (1986). Stroke and alcohol consumption. *New England Journal of Medicine*, 315(17), 1041-1046.
- Glaser, B and Strauss, A. (1967). *Discovery of Grounded Theory*. Chicago: Aldine.
- Goffman, E. (1959). *The presentation of self in everyday life*: New York : Anchor Books, 1959.
- Goffman, E. (1986). *Stigma : notes on the management of spoiled identity*: New York : Simon & Schuster, 1986. 1st Touchstone ed.
- Goode, E. (1996). The ethics of deception in social research: A case study. *Qualitative sociology*, 19(1), 11-33.
- Goulding, C. (2005). Grounded theory, ethnography and phenomenology: A comparative analysis of three qualitative strategies for marketing research. *European journal of Marketing*, 39(3/4), 294-308.
- Graneheim, U. H., & Lundman, B. (2004). Qualitative content analysis in nursing research: concepts, procedures and measures to achieve trustworthiness. *Nurse education today*, 24(2), 105-112.
- Greenberg, D. F. (1977). Delinquency and the age structure of society. *Crime, law and social change*, 1(2), 189-223.
- Gregory, K., Cottom, T. M., & Daniels, J. (2017). Introduction. In J. Daniels, K. Gregory, and T.M. Cottom (Eds). *Digital sociologies*. Great Britain: Policy Press..
- Grube, J. W., & Voas, R. B. (1996). Predicting underage drinking and driving behaviors. *Addiction*, 91(12), 1843-1857.

- Guba, E. G., & Lincoln, Y. S. (1994). Competing paradigms in qualitative research. *Handbook of qualitative research*, 2(163-194), 105.
- Help and discussion regarding DUI/DWI/ Wet and Wreckless. (2018). Retrieved from <https://www.reddit.com/r/dui/>
- Herd, D. (1987). Rethinking black drinking. *British Journal of Addiction*. 82(3), 219-223.
- Hirschi, T., & Gottfredson, M. (1983). Age and the explanation of crime. *American journal of sociology*, 89(3), 552-584.
- Hogan, B. (2010). The presentation of self in the age of social media: Distinguishing performances and exhibitions online. *Bulletin of Science, Technology & Society*, 30(6), 377-386.
- Hsieh, H.-F., & Shannon, S. E. (2005). Three approaches to qualitative content analysis. *Qualitative health research*, 15(9), 1277-1288.
- Huckle, T., You, R. Q., & Casswell, S. (2010). Socio-economic status predicts drinking patterns but not alcohol-related consequences independently. *Addiction*, 105(7), 1192-1202.
- Humphreys, L. (2006). *Tearoom trade : impersonal sex in public places*: New Brunswick, NJ : Aldine, 2006. Enlarged ed.
- Jacobs, J. B. (1989). *Drunk Driving: An American Dilemma*: University of Chicago Press.
- Jessor, R. (1987). Risky driving and adolescent problem behavior: an extension of problem-behavior theory. *Alcohol, Drugs & Driving*. 3(3-4).
- Jewett, A., Shults, R. A., Banerjee, T., & Bergen, G. (2015). Alcohol-impaired driving among adults—United States, 2012. *MMWR. Morbidity and Mortality Weekly Report*, 64(30), 814.
- Johnson, H. B. (2014). *The American dream and the power of wealth: Choosing schools and inheriting inequality in the land of opportunity*: Routledge.
- Kirschenman, J., & Neckerman, K. M. (1991). We'd love to hire them, but...": The meaning of race for employers. *The urban underclass*, 203, 203-232.
- Krippendorff, K. (1989). Content Analysis. In E. Barnouw, G. Gerbner, W. Schramm, T. L. Worth, & L. Gross (Eds.), *International Encyclopedia of Communication* (Vol. 1, pp. 403-407). New York, NY: Oxford University Press.
- Lamb, M. (1998). Cybersex: Research Notes on the Characteristics of the Visitors to Online Chat Rooms. *Deviant Behavior*, 19(2)121-135.

- Lanza-Kaduce, L. (1988). Perceptual deterrence and drinking and driving among college students. *Criminology*, 26(2), 321-341.
- Lapham, S., & England-Kennedy, E. (2012). Convicted driving-while-impaired offenders' views on effectiveness of sanctions and treatment. *Qualitative health research*, 22(1), 17-30.
- Leigh, B. C., & Stacy, A. W. (2004). Alcohol expectancies and drinking in different age groups. *Addiction*, 99(2), 215-227.
- Lender, M., & Martin, J. (1982). *Drinking in America*: NY: The Free Press.
- Lewis, A. E. (2003). *Race in the schoolyard: Negotiating the color line in classrooms and communities*: Rutgers University Press.
- Maines, D. R. (1993). Narrative's Moment and Sociology's Phenomena: Toward a Narrative Sociology. *The Sociological Quarterly*, 34(1), 17-38. doi:10.1111/j.1533-8525.1993.tb00128.x
- Marcil, I., Bergeron, J., & Audet, T. (2001). Motivational factors underlying the intention to drink and drive in young male drivers. *Journal of safety research*, 32(4), 363-376.
- Marres, N. (2013). What is Digital Sociology? Retrieved from <http://www.csisponline.net/2013/01/21/what-is-digital-sociology/>
- Mason, A., & Monk-Turner, E. (2010). Factors shaping the decision of college students to walk or drive under the influence of alcohol: A test of Rational Choice theory. *Drugs: education, prevention and policy*, 17(5), 560-572.
- Massey, D. S., & Denton, N. A. (1993). *American apartheid: Segregation and the making of the underclass*: Harvard University Press.
- Matthews, M. L., & Moran, A. R. (1986). Age differences in male drivers' perception of accident risk: The role of perceived driving ability. *Accident Analysis & Prevention*, 18(4), 299-313.
- MAXQDA. (2019). MAXQDA: Qualitative Data Analysis Software. Retrieved from <https://www.maxqda.com/>
- Mayring, P. (2000). Qualitative Content Analysis. *Forum: Qualitative Social Research*, 1(2).
- McCarthy, D. M., & Pedersen, S. L. (2009). Reciprocal associations between drinking-and-driving behavior and cognitions in adolescents. *Journal of studies on alcohol and drugs*, 70(4), 536-542.
- Mead, G. H. (1934). *Mind, self & society : from the standpoint of a social behaviorist / George H. Mead, edited with introduction, by Charles W. Morris*: Chicago, Ill., The University of Chicago Press.

- Midanik, L. T., Klatsky, A. L., & Armstrong, M. A. (1990). Changes in drinking behavior: demographic, psychosocial, and biomedical factors. *International Journal of the Addictions*, 25(6), 599-619.
- Mirowsky, J., & Ross, C. E. (2003). Education, social status, and health. New Jersey: Transaction Publishers.
- Moan, I. S., & Rise, J. (2011). Predicting intentions not to "drink and drive" using an extended version of the theory of planned behaviour. *Accident Analysis & Prevention*, 43(4), 1378-1384.
- Montaño, D. E., & Kasprzyk, D. (2008). Theory of Reasoned Action, Theory of Planned Behavior, and the Integrated Behavioral Model. In B. K. R. Karen Glanz, K. Viswanath (Ed.), *Health Behavior and Health Education: Theory, Research, and Practice* (pp. 67-96). San Francisco, CA: Jossey-Bass.
- Moskowitz, H., & Burns, M. (1990). Effects of alcohol on driving performance. *Alcohol Health & Research World*, 14(1), 12-15.
- Moulton, B. E., Peterson, A., Haddix, D., & Drew, L. (2010). National survey of drinking and driving attitudes and behaviors : 2008. Volume 2, findings report.
- National Center for Statistics and Analysis. (2004). *Traffic Safety Facts* (DOT HA 809 911). Retrieved from Washington, DC: <https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/809911>
- National Highway Traffic Safety Administration. (2011). National Survey of Drinking and Driving Attitudes and Behaviors: 2008. *Annals of emergency medicine*, 57(4), 405-406.
- National Highway Traffic Safety Administration. (2018). Drunk Driving. Retrieved from <https://www.nhtsa.gov/risky-driving/drunk-driving>
- National Highway Traffic Safety Administration. (2019). About NHTSA. Retrieved from <https://www.nhtsa.gov/about-nhtsa>
- Neff, J. A., Prihoda, T. J., & Hoppe, S. K. (1991). "Machismo," self-esteem, education and high maximum drinking among anglo, black and Mexican-American male drinkers. *Journal of Studies on Alcohol*, 52(5), 458-463.
- Nolen-Hoeksema, S., & Hilt, L. (2006). Possible contributors to the gender differences in alcohol use and problems. *The Journal of general psychology*, 133(4), 357-374.
- Nygaard, P., Waiters, E. D., Grube, J. W., & Keefe, D. (2003). Why do they do it? A qualitative study of adolescent drinking and driving. *Substance use & misuse*, 38(7), 835-863.

- Oksanen, A., Aaltonen, M., & Kivivuori, J. (2015). Driving under the influence as a turning point? A register-based study on financial and social consequences among first-time male offenders. *Addiction*, *110*(3), 471-478.
- Oliver, M., & Shapiro, T. (2013). *Black wealth/white wealth: A new perspective on racial inequality*: Routledge.
- Omi, M., & Winant, H. (2014). *Racial formation in the United States*: Routledge.
- Pager, D. (2003). The mark of a criminal record. *American journal of sociology*, *108*(5), 937-975.
- Parker, D., Manstead, A. S., Stradling, S. G., Reason, J. T., & Baxter, J. S. (1992). Intention to commit driving violations: An application of the theory of planned behavior. *Journal of Applied Psychology*, *77*(1), 94-101.
- Peralta, R. L. (2008). "Alcohol allows you to not be yourself": Toward a structured understanding of alcohol use and gender difference among gay, lesbian, and heterosexual youth. *Journal of Drug Issues*, *38*(2), 373-399.
- Peralta, R. L. (2010). Raced and gendered reactions to the deviance of drunkenness: A sociological analysis of race and gender disparities in alcohol use. *Contemporary Drug Problems*, *37*(3), 381-415.
- Peralta, R. L., & Cruz, J. M. (2005). Conferring meaning onto alcohol-related violence: An analysis of alcohol use and gender in a sample of college youth. *The Journal of Men's Studies*, *14*(1), 109-125.
- Peters, B. L., & Stringham, E. (2006). No booze? You may lose: Why drinkers earn more money than nondrinkers. *Journal of Labor Research*, *27*(3), 411-421.
- Petry, N. M., Kirby, K. N., & Kranzler, H. R. (2002). Effects of gender and family history of alcohol dependence on a behavioral task of impulsivity in healthy subjects. *Journal of Studies on Alcohol*, *63*(1), 83-90.
- A place to get simple legal advice. (2018). Retrieved from <https://www.reddit.com/r/legaladvice/>
- Progressive Casualty Insurance Company. (2019). Drunk Driving, BAC, Blood Alcohol Level, State BAC Limits. Retrieved from <https://www.progressive.com/vehicle-resources/blood-alcohol-calculator/>
- Quinlan, K. P., Brewer, R. D., Siegel, P., Sleet, D. A., Mokdad, A. H., Shults, R. A., & Flowers, N. (2005). Alcohol-impaired driving among US adults, 1993–2002. *American journal of preventive medicine*, *28*(4), 346-350.

- Recuber, T. (2017). *Digital discourse analysis: Finding meaning in small online spaces*. Chicago: Policy Press.
- Ridgeway, C. L., & Correll, S. J. (2004). Unpacking the gender system: A theoretical perspective on gender beliefs and social relations. *Gender & society, 18*(4), 510-531.
- Ronai, C. R., & Ellis, C. (1989). Turn-ons for money: Interactional strategies of the table dancer. *Journal of Contemporary Ethnography, 18*(3), 271-298.
- Ross, C. E., & Mirowsky, J. (1983). Social epidemiology of overweight: a substantive and methodological investigation. *Journal of Health and Social Behavior, 288-298*.
- Ross, H. L. (1984). Social control through deterrence: Drinking-and-driving laws. *Annual review of sociology, 10*(1), 21-35.
- Ross, H. L. (1992). *Confronting drunk driving: Social policy for saving lives*: Yale University Press.
- Royal, D. (2003). *National survey of drinking and driving attitudes and behavior: 2001. Volume 1, Summary report*. Retrieved from <https://rosap.ntl.bts.gov/view/dot/1727>.
- Saldaña, J. (2013). *The coding manual for qualitative researchers*: Los Angeles : SAGE, 2013. 2nd ed.
- Schreier, M. (2012). *Qualitative content analysis in practice*: Sage Publications.
- Schutz, A. (1967). *The phenomenology of the social world*: Northwestern University Press.
- Scully, D. (2013). *Understanding sexual violence: A study of convicted rapists*: Routledge.
- Shelton, M., Lo, K., & Nardi, B. (2015). Online media forums as separate social lives: A qualitative study of disclosure within and beyond Reddit. *iConference 2015 Proceedings*.
- Singer, P., Flöck, F., Meinhart, C., Zeitfogel, E., & Strohmaier, M. (2014). *Evolution of reddit: from the front page of the internet to a self-referential community?* Paper presented at the Proceedings of the 23rd international conference on world wide web.
- Sloan, F. A., Chepke, L. M., & Davis, D. V. (2013). Race, gender, and risk perceptions of the legal consequences of drinking and driving. *Journal of safety research, 45*, 117-125.
- Smith, C. P. (2000). Content analysis and narrative analysis *Handbook of research methods in social and personality psychology*. (pp. 313-335). New York, NY, US: Cambridge University Press.
- Sowles, S. J., McLeary, M., Optican, A., Cahn, E., Krauss, M. J., Fitzsimmons-Craft, E. E., . . . Cavazos-Rehg, P. A. (2018). A content analysis of an online pro-eating disorder community on Reddit. *Body image, 24*, 137-144.

- Stampfer, M. J., Colditz, G. A., Willett, W. C., Speizer, F. E., & Hennekens, C. H. (1988). A prospective study of moderate alcohol consumption and the risk of coronary disease and stroke in women. *New England Journal of Medicine*, 319(5), 267-273.
- Stappenbeck, C. A., & Fromme, K. (2010). Alcohol use and perceived social and emotional consequences among perpetrators of general and sexual aggression. *Journal of interpersonal violence*, 25(4), 699-715.
- StataCorp. (2013). *Stata User's Guide: Release 13*. College Station, TX: Stata Press.
- StataCorp. (2015). *Stata Statistical Software: Release 14*. College Station, TX: StataCorp LP.
- Strodtbeck, F. L., & Mann, R. D. (1956). Sex role differentiation in jury deliberations. *Sociometry*, 19(1), 3-11.
- Subramanian, R. (2009). *Motor Vehicle Traffic Crashes as a Leading Cause of Death in the United States, 2006* (DOT HS 811 226). Retrieved from Washington, DC: <https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/811226>
- Sykes, G. M., & Matza, D. (1957). Techniques of neutralization: A theory of delinquency. *American sociological review*, 22(6), 664-670.
- Tewksbury, R. (2002). bathhouse intercourse: structural and behavioral aspects of an erotic oasis. *Deviant Behavior*, 23(1), 75-112.
- Toma, C. L., Hancock, J. T., & Ellison, N. B. (2008). Separating fact from fiction: An examination of deceptive self-presentation in online dating profiles. *Personality and Social Psychology Bulletin*, 34(8), 1023-1036.
- Vander Ven, T. (2011). *Getting wasted: Why college students drink too much and party so hard*: NYU Press.
- VERBI Software. (2017). MAXQDA 2018. Retrieved from <https://www.maxqda.com>
- Voas, R. B. (1981). *Results and implications of the ASAPs*. Paper presented at the Proceedings International Council on Alcohol, Drugs and Traffic Safety Conference.
- Voas, R. B., Torres, P., Romano, E., & Lacey, J. H. (2012). Alcohol-related risk of driver fatalities: an update using 2007 data. *Journal of studies on alcohol and drugs*, 73(3), 341-350.
- Voas, R. B., Wells, J., Lestina, D., Williams, A., & Greene, M. (1998). Drinking and driving in the United States: the 1996 national roadside survey. *Accident Analysis & Prevention*, 30(2), 267-275.
- Volpe, J. (1983). Presidential commission on drunk driving, final report. *Washington, DC: US Government Printing Office*.

- Wagenaar, A. C., Salois, M. J., & Komro, K. A. (2009). Effects of beverage alcohol price and tax levels on drinking: a meta-analysis of 1003 estimates from 112 studies. *Addiction*, *104*(2), 179-190.
- Wakefield, S., & Uggen, C. (2010). Incarceration and stratification. *Annual review of sociology*, *36*, 387-406.
- Walker, S. (2001). Searching for the denominator: Problems with police traffic stop data and an early warning system solution. *Justice Research and Policy*, *3*(1), 63-95.
- Wang, L., Zhan, Y., Li, Q., Zeng, D., Leischow, S., & Okamoto, J. (2015). An examination of electronic cigarette content on social media: analysis of e-cigarette flavor content on Reddit. *International Journal of Environmental Research and Public Health*, *12*(11), 14916-14935.
- Weed, F. J. (1987). Grass-Roots Activism and the Drunk Driving Issue: A Survey of MADD Chapters. *Law & Policy*, *9*(3), 259-278.
- West, C., & Zimmerman, D. H. (1987). Doing gender. *Gender & society*, *1*(2), 125-151.
- Williams, A. F. (2006). Alcohol-impaired driving and its consequences in the United States: the past 25 years. *Journal of safety research*, *37*(2), 123-138.
- Wilsnack, R. W., Vogeltanz, N. D., Wilsnack, S. C., & Harris, T. R. (2000). Gender differences in alcohol consumption and adverse drinking consequences: cross-cultural patterns. *Addiction*, *95*(2), 251-265.
- Wilsnack, S. C. (1996). *Women's perceptions about the social acceptability of women's versus men's drinking*. Unpublished raw data. School of Medicine and Health Sciences. University of North Dakota. Grand Folks, ND.
- Winkleby, M. A., Jatulis, D. E., Frank, E., & Fortmann, S. P. (1992). Socioeconomic status and health: how education, income, and occupation contribute to risk factors for cardiovascular disease. *American Journal of Public Health*, *82*(6), 816-820.
- Yang, C.-c., & Brown, B. B. (2016). Online self-presentation on Facebook and self development during the college transition. *Journal of youth and adolescence*, *45*(2), 402-416.
- Zador, P. L., Lund, A. K., Fields, M., & Weinberg, K. (1989). Fatal crash involvement and laws against alcohol-impaired driving. *Journal of Public Health Policy*, *10*(4), 467-485.