CONNECTIONS BETWEEN THE FOLK PSYCHIATRY OF ADDICTION AND LEVELS OF ATTRIBUTED STIGMA

by

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ABSTRACT

Some serious health problems, such as addiction, can be highly stigmatized by others. Through different learning experiences and life events, people develop varying conceptions of the etiology of addiction. These sets of beliefs are referred to as "folk psychiatry" and can be understood as a guiding force behind public opinion. This study examines the knowledge individuals use to make judgments about individuals with substance-use disorder by positing a shared cultural model of addiction causality. This research was conducted among undergraduate students at the University of Alabama, as college students in the 18-25 age range are especially at risk for developing substance-use disorder due to binge drinking on college campus and other factors. As causes of addiction are heavily intertwined with biological, social, and political issues, this model aids in recognizing which realm of understanding maintains the highest saliency in laypeople's conceptions of the development of substance use-disorder. The model consists of 28 causes distributed throughout five themes: Biomedical, Self-Medication, Familial, Social, and Hedonistic. Cultural consensus was found along three dimensions of the model: overall influence of causes, level of personal control over causes, and level of outsider influence on causes. Differing knowledge and understandings of the model of addiction causality and measures of political progressivism were shown to have significant effects on the level of attributed stigma towards individuals with substance use disorder.

LIST OF ABBREVATIONS AND SYMBOLS

AA	Alcoholics Anonymous
AAWS	Alcoholics Anonymous World Services
ABC	Alcoholic Beverage Control Board
ACLU	American Civil Liberty Union
ANT 101	Introduction to Anthropology
ANT 102	Introduction to Cultural Anthropology
APA	American Psychiatric Association
ASAM	American Society of Addiction Medicine
AUD	Alcohol-Use Disorder
β	beta, Standardized Coefficient
CASA	National Center on Addiction and Substance Abuse at Columbia University
CBHSQ	Center for Behavioral Health Statistics and Quality
CCA	Cultural Consensus Analysis
CCT	Cultural Consensus Theory
CDC	Center for Disease Control and Prevention
CSR	Campus Security Report
df	Degrees of Freedom
DSM-IV	Diagnostic and Statistical Manual of Mental Disorders – 5
HED	Heavy Episodic Drinking

HHE 270	Personal Health
IRB	Institutional Review Board
M	Mean
MDMA	3,4-methylenedioxy-methamphetamine
MDS	Multi-dimensional Scaling
MFQ	Moral Foundations Questionnaire
N, n	Number, Sample Size
NDIC	National Drug Intelligence Center
NIAAA	National Institute on Alcohol Abuse and Alcoholism
NIDA	National Institute on Drug Abuse
NSDUH	National Survey on Drug Use and Health
ONDCP	Office of National Drug Control Policy
p	Probability of Results or Outcome
PPACA	Patient Protection and Affordable Care Act
PROFIT	Property Fitting Analysis
PY 355	General Experimental Psychology
r	Pearson Product Moment Correlation
R^2	Multiple Correlation Coefficient
RA	Residual Agreement
REL 419	Myth, Ritual, and Magic
SAMHSA	Substance Abuse and Mental Health Services Administration
SD	Standard Deviation
SMART	Self-Management and Recovery Training

SUD	Substance-Use Disorder
t	Computed Value of t-test
UA	University of Alabama
USDHHS	United States Department of Health and Human Services
WCTU	Women's Christian Temperance Union
=	Equal to
>	Great than
≥	Greater than or equal to
<	Less than
≤	Less than or equal to
±	Plus or minus

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CHAPTER 1

INTRODUCTION

Substance abuse and addiction are major public health problems that impact people in the United States at the national, communal, and personal level. The National Institute on Drug Abuse (NIDA) (2012) estimates that the United States spends over $600 billion annually on health and crime-related costs associated with addiction. Of this $600 billion dollars, approximately $193 billion is related to illicit drugs (NDIC, 2011), $193 billion to tobacco (CDC, 2008), and $235 billion to alcohol (Rehm et al., 2009). Abuse of substances is not only costly for the United States, but it places a burden on the work place and health care systems. Further, though there are alternative ways of measuring rates of addiction, all measurements indicate addiction rates are high. A recent report claims that approximately 47% of the U.S. adult population suffers from maladaptive signs of an addictive disorder, but only 11% of people seek treatment every year, and approximately 40-60% of those relapse within the first year (Bowen et al., 2014).

Due to this widespread issue, changing drug policy is often thought of as a matter of national importance. For almost 40 years, American policy makers have followed in the path set out by Richard Nixon and his War on Drugs. These policies are harsh and have led to the criminalization and marginalization of large portions of American society. Overturning the policies of Nixon's War on Drugs and altering how addiction treatment is

handled is one of the few true bipartisan issues facing the country today. With the recent passing of the Patient Protection and Affordable Care Act (PPACA) and President Obama releasing of thousands of federal prisoners detained due to Drug War policies, the United States seems to be heading toward a more medical understanding of addiction. However, national opinion does not change overnight: the War on Drugs has gone on for decades and addicts have long been painted as moral deviants. Historically, addiction to alcohol or other substances inherently brought attributions of public stigma and distain to the individual. Potentially, it is confusion between the medical and the criminal that leaves the community at odds with substance abusers. The chemical nature of addiction implies the necessity of medicine to "cure" the disorder, but the stigma attached to criminals and the illegality of substances creates a dilemma.

Recent research has shown that people are significantly more likely to have negative attitudes toward individuals with substance abuse disorders than individuals with other mental illnesses (Barry, McGinty, Pescosolido, and Goldman, 2014). Societal stigma associated with substance use and abuse creates a vicious cycle of disapproval for users, so much so that it may discourage or prevent them from seeking proper treatment (Regier et al., 1993), as well as create a negative environment for the addict and their social network (Farina and Felner, 1973; Link, Cullen, Frank, and Wozniak, 1987; Wahl, 1999; Wright, Gronfein and Owens, 2000). Furthermore, the internalization of stigma has been shown to reduce the well-being of persons with mental illness, as it lowers self-esteem and increases self-blame (Link et al., 1987). Early characterizations of stigma referred to the individual as having a "spoiled identity" (Goffman, 1963). This change in status then acts as an exclusionary device, which essentially disqualifies the individual from complete social

acceptance or participation in certain social mores. This distinction remains useful when considering the role of stigma in health and, even more so, in mental health.

Though people have used mind-altering and other addictive substances for at least 8-10,000 years, the labeling of addicts did not become the social norm until quite recently (Singer and Page, 2013). In the field of anthropology, little attention was paid to addiction research until the early 1970s (Bennett and Cook, 1996). However, as focus shifted both to Western cultures and useful applications of anthropology, social issues such as addiction began to gain more attention in the field. Therefore, when Heath (1962) observed the social value of intoxication among the Camba, he challenged the social conception of addiction and posited the existence of varying cultural models of alcohol use (Heath, 1987a; Heath, 1987b; Heath 1987c). In doing so, addiction could then be understood as a disorder that stems from cultural and biological factors, with attributions ranging from moral failings to genetics (Bacon, 1976; Bennett, 1988; MacAndrew and Edgerton, 1969)

In this way, anthropologists argue that substance use and addiction must be understood as biocultural in nature. Therefore, I am interested in the intersection between culture, the etiology of addiction, and attributed stigma. This study investigates how this ever-changing status of addiction leaves society in the midst of confusion. Specifically, I am interested in how experience influences beliefs about the etiology of addiction and, furthermore, how those beliefs influence stigmatization. People in society develop beliefs about the etiology and manifestation of mental illness through a variety of life experiences. These beliefs are compiled into what Haslam (2005) calls a "folk psychiatry" of mental illness and have been shown to be guiding factors behind public attitudes of individuals with mental illness. In essence, people use their folk psychiatric models to formulate both

positive and negative judgments about people with disorders. With this in mind, it is conceivable that it would be possible to describe the source of stigma through looking at what individuals in society view as the salient causes of addiction.

Techniques in cognitive anthropology provide an opportunity to delve into society's cultural model of addiction causality, in that these techniques can be used to elicit how people understand the causes of addiction. Through establishing the model, this research aims to show how cultural experiences affect how individuals understand addiction, and, ultimately, attribute stigma based on those understandings. Stigma reduction campaigns often fail to effectively target the multiple layers of the issue, as they do not have an accurate conception of the roots of the attributions of stigma. This study seeks to elucidate these roots by looking at how varying etiological understandings of addiction and differing mechanisms of moral decision making influence the attribution of stigma.

This cross-sectional project utilizes convenience-sampling methods among undergraduate students at the University of Alabama (UA). In the first phase, 39 students at UA between the ages of 18 and 25 were asked to free-list potential causes of addiction. An analysis of the frequency with which potential causes are named in the free-lists revealed 28 causes that were mentioned often. In the second phase, 38 students in the same age group were asked to engage in pile-sorting tasks. Cluster analysis and nonmetric multidimensional scaling showed that there were five distinct cluster groups embedded within the model: Biomedical, Self-Medication, Familial, Social, and Hedonistic. In the third phase, 212 students completed a questionnaire including a demographics survey, 3 rating tasks, the moral foundations questionnaire (MFQ), and a stigma attribution scale. This research hypothesized: (1) There is a shared cultural model of addiction causality; and, (2)

Endorsement of particular elements in the model leads to higher or lower levels of attributed stigma.

1.1. Outline of the Thesis

Chapter two contextualizes the state of substance use and addiction in the United States through tracing an abbreviated history of American drug policy. The country has experienced several shifts in how addiction is understood, with the current shift to medicalization only being the most recent. This chapter discusses the forces that have led, are leading, or could lead to another conceptual shift. The mechanisms through which addiction was criminalized and addicts were marginalized will be discussed. Finally, the changing demographic composition of addiction in the United States will be discussed in terms of what led to these changes and what they could mean for how people understand addiction.

Chapter three describes the research population and setting of this study. A rationale for why college students at UA are appropriate subjects for this study is given. The chapter discusses increasing rates of substance use among college students and how rates differ on and off college campuses. Elements of college life are discussed in terms of how they relate to substance use and beliefs about substance abuse on college campuses. Finally, aspects of college life that are unique to college life at UA are discussed.

Chapter four provides the theoretical background and foundation for this study. First, this study is based in cognitive anthropological theory and methods, which views culture as shared knowledge that fundamentally shapes how people understand and respond to social situations. Second, two primary themes surrounding addiction – addiction as "brain disease" and addiction as "moral deviance" – are discussed and a unified

biocultural conception of addiction is presented. Next, an overview of how stigma is understood in the context of public health and how attributed stigma can be used in combination with folk psychiatry to better understand the source of stigma in American society is given. Finally, the moral foundations theory is discussed in terms of being both an alternative hypothesis to stigma attribution and how the mechanisms of moral decision making could affect stigma attribution.

Chapter five outlines the methods and chapter six presents the results of this study. A detailed description of each of the three phases of this research and the outcomes at each stage is provided. Cultural domain analysis was used to construct the cultural model of addiction causality and cultural consensus was confirmed using cultural consensus analysis. Residual agreement analysis was used to further explore the model by analyzing the shared agreement beyond the first factor consensus. Finally, linear regression models are presented to account for attributed stigma.

Finally, in chapter seven, the social and political implications of the existence of a shared cultural model of addiction causality is discussed. I suggest that the residual agreement analysis provides evidence for two alternative ways of understanding the etiology of addiction. Further, I discuss how these alternative perspectives and the mechanisms of moral decision-making influence stigma attribution.

CHAPTER 2

STATEMENT OF THE PROBLEM

2.1. Introduction

Many would argue that the United States is currently in the midst of a major conceptual shift regarding substance use and abuse. In fact, overturning the abject policies of Nixon's War on Drugs and re-evaluating how addiction treatment is handled is widely regarded as one of the few bipartisan issues facing the country today. However, history demonstrates that the United States has experienced persistent shifts in opinion on drugs and alcohol since the country's inception in 1776. These attitudes have changed from endorsement to toleration to condemnation in phases that tend to last approximately the length of a single human lifetime (Musto, 2002). Thus, the questions we should be asking are not merely those of how and when policies will change, but, instead, what is driving change and how it will affect public opinion. This chapter will discuss the forces that have led or could lead to a shift in the social understanding of addiction by discussing how an interwoven history of criminalization and medicalization have led to the understanding of addiction in American society today. The exodus of addiction and addiction treatment from the medical world, the mass-overpopulation of American prisons with non-violent offenders, and the changing demographic profile of individuals with addiction will be

discussed in terms of the drug policies that led to them and how they contribute to the social understanding of addiction in the United States today.

2.2. The Criminalization of Addiction

In 1911, a New York Times article quoted the United States Opium Commissioner, Hamilton Wright in stating "the United States consumes [the] most habit-forming drugs per capita" (quoted in Marshall, 1911). Though this was substantiated with little more than personal observations, this statement instigated a number of acts aiming to curb domestic distribution and consumption of drugs. The first of these successfully passed through Congress is referred to as the Harrison Narcotic Act of 1914 (Brecher, 1972; Weissman, 1978). Some argue that this particular law laid the foundation for the criminal model of substance use disorder (Musto 2002; Weissman, 1978). While previously the states were in charge of determining their own anti-narcotic laws, this act placed the responsibility into the hands of the federal government. Primarily, the act required that all individuals engaging in any way with cocaine or opiate drugs register with the Treasury department, pay a tax on all non-pharmaceutical sales of opiates, and keep records of all transactions that occur (King, 1974). However, it also limited the amount of opiates that could be prescribed to a single individual and denoted that physicians were only able to prescribe narcotics for "legitimate medical purposes" and "in the course of professional practice" (Harrison Narcotics Tax Act, 1914). Ultimately, it was the varying interpretation of these phrases that led to the criminality of addiction. Some interpretations viewed "addiction maintenance," or the prescribing of narcotics to addicts, as a legitimate medical issue, as the physician was aiding the patient in relieving symptoms of withdrawal. However, others

saw physicians as in violation of the law, because addiction was not seen as a "legitimate medical purpose" (1914).

This controversy was meant to be ended by Webb v. United States, in 1919, when the Supreme Court of the United States held that the Harrison Narcotic Act did not allow physicians to prescribe narcotics to known addicts for the purpose of maintaining patient comfort (Bonnie, Coughlin, Jeffries, and Low, 2004). Later, in 1922, Supreme Court of the United States again ruled that any prescription of narcotics to known addicts was illegal, even when prescribed as a part of a treatment program. This case, United States v. Behrman (1922), brought forth the idea that *mens rea*, or guilty intent, was not necessary to be found in violation of the Harrison Narcotics Act and effectively labeled violation of the act as a strict liability crime (Bonnie et al., 2004). For individuals with substance use disorder, this effectively blocked all pathways to the legal procurement of drugs. However, the Supreme Court of the United States reversed the US v. Behrman (1922) decision in Linder v. U.S. (1925) and Boyd v. United States (1926) by holding that the earlier decision to withhold medical care from addicts was an overstep of power and sought to distinguish between doctors prescribing in "good faith" and those prescribing to enable "recipients to indulge their acquired longing for the drug and its effects" (Boyd v. United States, 1926, p. 271).

Despite this overhaul, little to nothing changed among the American "addict" community. Doctors often refused treatment to addicts, and underground markets that flourished between 1922 and 1925 continued to develop. Additionally, the majority of government bodies, including the US Bureau of Narcotics of the Treasury Department, effectively ignored the 1925 ruling and continued to prosecute physicians who prescribed

narcotics to addicts (Novick and Joseph, 1991). In sum, while the Harrison Narcotic Act (1914) initially sought to place restrictions on those individuals handling and receiving narcotics, it effectively took addiction out of a medical setting and placed it into the underground criminal world that is often still associated with addiction today.

Attitudes surrounding alcohol use experienced a similar change at around the same time. Whereas popular opinion held that minorities made up the majority of the drug-using population, alcoholics were believed to be ubiquitous in American society and, therefore, were much more likely to negatively influence their social and familial networks (Courtwright, 1992). Following the American Revolution, attitudes about alcohol use were positive, which led to an increase in consumption levels (Musto, 2002). As consumption continued to increase, an opposition movement began to grow and culminated in the first temperance movement in 1855. Though prohibition policies were established in 13 states and territories, these laws were generally ignored and the movement failed (2002).

By the end of the 19th century, however, public opinion had shifted again to allow for the second temperance movement to achieve a moderate amount of success. The movement was primarily led by the American Society for the Promotion of Temperance (later called the American Temperance Society), the Women's Christian Temperance Union (WCTU), and the Anti-Saloon league. Though motivated by religious faith, temperance supporters argued that Prohibition would also "energize political reform, promote community welfare, and improve public health" (Blocker, 2006, p. 234) Though the American Medical Association went on record as being opposed to the use of alcohol (Herd, 1992; Katcher, 1993; Timberlake, 1963), the majority of the opposition to alcohol stemmed purely from the social reasons (Levine, 1978). Most of the success of the movement was

accomplished through promoting political candidates who were sympathetic to the prohibitive goals of the groups (Sinclair, 1962). This strategy would culminate in the passing of the 18th Amendment of the Constitution in 1919, which deemed the production, transport and sale of "intoxicating liquors" illegal in the United States, and the Volstead Act of 1919, which strengthened the 18th Amendment by defining "intoxicating liquors" and establishing penalties.

In sum, the period of alcohol prohibition lasted 13 years, before the ratification of the 21st Amendment to the Constitution in 1933, which repealed the 18th Amendment. Kerr (1985) points out that because congressmen ratified the amendment before the drafting of the Volstead Act, many were not aware that Prohibition policies would be abstinent in nature. Musto (2002) also notes three potential reasons for the ultimate failure of prohibition policies:

> "the blatant inability to control alcohol distribution, the failure to convince a large majority of Americans that alcohol is intrinsically destructive, and, after 1929, the specious hope that revival of the alcoholic beverage industry would help lift the nation out of the great depression" (p. 11-12).

Further, what began as an effort to curb the downfall of American morality quickly derailed as millions of previously law-abiding American systems were turned into criminals (Peck, 2009). Instead of being confined to saloons, alcohol manufacture and consumption retreated into the homestead, where individuals made moonshine and "bathtub gin" to sell to their local bootlegger (Peck, 2009). Excitement about lawbreaking grew with the rise of stock car racing by bootleggers and the opening of speakeasies all over the country (Okrent, 2010; Peck, 2009; Sismodo, 2011).

With the repeal of alcohol Prohibition, focus soon returned to the control of other substances. In 1937, the Narcotic Unit within the Treasury Department's Bureau of Prohibition was replaced with the Federal Bureau of Narcotics and Harry Anslinger held the position of director from its inception until 1962 (Courtwright, 1982; King, 1974; Weissman, 1978). Throughout his reign, Anslinger led the fight against medical maintenance and towards a moralistic and violent view of drugs and drug users. Some historians believe this period represents the climax of legislation aiming to punish drug users in the United States (Musto 1973). Two laws in particular had the most effect in further criminalizing addiction: the 1951 Boggs Act and the 1956 Narcotics Control Act. While the Boggs Act increased penalties for drug possession or distribution fourfold over previous drug laws, the Narcotics Control Act increased penalties eightfold over the Boggs Act, culminating in a mandatory minimum sentence of twenty years in prison, without eligibility for parole or probation (Bonnie and Whitebread, 1999; Brecher, 1972; Kolb, 1962; Lindesmith, 1965; Musto, 1973).

Given the events described above, it seems naïve to believe that the American War on Drugs began with President Richard Nixon's declaration in June of 1971. The "War on Drugs" is a term with which most Americans are familiar, yet few people truly understand the purposes, successes, and failures of it. Richard Nixon began the "war" in an attempt to "restore 'law and order'" to American society, and stop the production, distribution, and use of 'dangerous substances'" (Singer, 2004, p. 288-289). The initial call by Nixon included an entreaty for devoting more federal resources toward the "prevention of new addicts and the rehabilitation of those who are addicted" (Nixon, 1971, para. 27). However, these parts of the speech did not receive nearly as much attention as the more punitive statements that

called for eradication of drugs currently in the country, the interdiction of those on the way, and the incarceration of those individuals caught in the middle (Payan, 2013). Nixon launched the Special Action Office for Drug Abuse Prevention, the Office of Drug Abuse Law Enforcement, and the Office of National Narcotics Intelligence in order to reign in drug use. By increasing the size and power of federal drug agencies and implementing measures such as mandatory sentencing and no-knock warrants, the President only established policies to aggressively attack drug use and virtually ignored rehabilitation and support services drug users required (Drug Policy Alliance, 2015).

The mass incarceration of non-violent offenders that we see today has most of its origins in the Reagan administration. Reagan sought to "get tough" on drugs and established a program known as the "zero tolerance" program, where, again, primarily punitive measures were used to combat substance use (Reagan, 1988). The Anti-Drug Abuse Act of 1986 established the basic framework of mandatory minimum penalties, where a prison term of five or ten years was directly activated by the type and quantity of drug in possession (US Sentencing Commission, 2002). Although some provisions in the act sought to provide treatment, efforts were altogether insufficient to meet the need of the population at large.

After this, the number of arrests began to rise and by the end of the 1980s they had risen 126% (Austin and McVey, 1989). Then, throughout the next decade, drug offenses accounted for 15% of the prison inmate growth among white inmates, 7% among Hispanic inmates, and 27% among black inmates (Yates, Collins, and Chin, 1995), which culminated in the approximate incarceration of one million Americans each year (Grinspoon and Bakalar, 1994). Of the 210,567 offenders incarcerated in the United States at the end of

2014, 51% committed a drug related offense that resulted in their arrest (US Sentencing Commission, 2015), and as of October 2015, this proportion had dropped slightly to 48.3% of inmates (Federal Bureau of Prisons, 2015). Additionally, a 2010 report by the National Center on Addiction and Substance Abuse (CASA) at Columbia University found that approximately 65% of all U.S. inmates met the medical criteria for substance use disorder, but only 11% of those individuals received treatment. Further, an additional 20% of the total inmate population did not meet the substance use disorder criteria established by the DSM-IV, but either had histories of substance abuse, were under the influence of alcohol or other drugs at the time of their crime, committed their offense to get money to buy drugs, were incarcerated for an alcohol or drug law violation, or shared some combination of these characteristics (CASA, 2010).

These high rates of incarceration are critical to the study of beliefs about addiction, because they naturally lead to the coupling of addiction and criminality. In essence, to be an addict is to be a criminal, which allows for the public perception of one to apply directly to the other. As criminality itself is already a stigmatized condition (Chung, Michelle and Laurence, 2005; Henderson, 2005; Sullivan, 2004; Uggen and Wakefield, 2005; Winnick and Bodkin, 2008), this only adds to the plight of individuals with substance use disorder. Studies have repeatedly shown that news and popular media content repeatedly emphasize violent behavior associated with mental illness and addiction, while downplaying stories of individuals who have undergone successful treatment (McGinty, Webster, Jarlenski, and Barry, 2014; Olafsdottir, 2011; Wahl, 1992; Wahl, 1995; Wahl, 2003; Wahl et al., 2002; Wahl et al., 2003). Considering the bulk of American society has little to no direct personal experience with drug addiction (Frank and Glied, 2006; Kessler

et al., 2012), it is reasonable that a considerable portion of beliefs about individuals with addiction stem directly from the media (Link, Phelan, Bresnahan, Stueve, and Pescosolido, 1999; Yankelovich, 1990). Undoubtedly, this has led to the perception that all addicts are inherently dangerous and maintain some degree of personal responsibility for becoming addicted to substances that were known to be both habit-forming and illegal. Both of these concepts will be discussed further in a later chapter in regards to the types of attributed stigma related to addiction.

2.3. Social Factors of Addiction

The demographics of substance use, in and out of the prison system, accounts for another major dimension in how Americans think about addiction. Over time, the key demographics of drug use have shifted and policy and public opinion has almost immediately followed directly behind. In noting the legality and illegality of drugs today, an emerging pattern develops not from the negative health impacts, but the profile of individuals associated with them. It is clear that drug policies have disproportionately affected minority individuals. Recently, however, the demographics of drug abuse have shifted again to primarily white, middle-class individuals, which could lead to another massive change in American drug policy.

The intersection of race and drug policy began well before the modern era. Anti-opium laws of the 1870s were aimed directly at Chinese immigrants (Brecher, 1972; McNamara, 1973), while anti-cocaine laws of the South in the early 1900s were directed at African American men. Just as opium smoking became associated with Chinese immigrants, cocaine became inextricably linked to African Americans. For example, a New York Times article from 1914 was entitled, "Negro Cocaine 'Fiends' Are a New Southern Menace:

Murder and Insanity Increasing Among Lower Class Blacks Because They Have Taken to 'Sniffing'" (Williams, 1914). This association continued into the late 1900s, though the convention altered somewhat with the invention of crack cocaine (Reinarman and Levine, 1997). This association culminated in the 1986 Anti-Drug Abuse Act, which initiated a 100 to 1 sentencing disparity for the possession or trafficking of crack to powder cocaine, which has been widely regarded as discriminatory towards minority individuals. (This sentencing disparity was not further considered until the Fair Sentencing Act reduced it to 18:1 in 2010.) Courtwright (1992) argues that the perceived shift in the addict population from white individuals in the early 1900s (who primarily used patent medicines) to black individuals in the later 1900s (who primarily used cocaine or heroin) strengthened the antipathy towards drugs and allowed for both Anslinger's and the War on Drugs' punitive policies to prosper. This perception was aided by the use of misleading statistics that showed that black addicts made up a larger proportion of individuals who entered federal treatment centers and who were arrested by police for drug charges (Iiyama, Nishi, and Johnson, 1976).

Addiction also began to be associated with having a poor home life. In a major study of young heroin users in New York City, Chein, Gerard, Lee, and Rosenfeld (1964) found that 97% of the study participants' families possessed "a disturbed relationship between the parents, as evidenced by separation, divorce, open hostility, or lack of warmth and mutual interest" (as cited in Courtwright, 1992, p. 20). Further, the study found that the mother was seen as the primary parent and approximately half of the fathers presented "immoral models through their own deviant activity with respect to criminality, infidelity, alcoholism, and the like" (Chein et al., 1964; as cited in Courtwright, 1992, p. 20). When

questioned about the increase in youth drug use in 1957, Anslinger invoked both of these stereotypes in saying, "The increase is practically 100% among Negro people in police precincts with the lowest economic and social standards . . . There is no drug addiction if the child comes from a good family, with the church, the home, and the school all integrated" (Anslinger and Chapman, 1957, as cited in Courtwright, 2002, p. 21). Instead of realizing that the increase in addiction rates stemmed from economic and social conditions within black and poor communities, Anslinger and future administrations continued to push punitive measures that disproportionately affected these individuals (Courtwright, 1992).

Today, however, the United States is experiencing another shift in the demographics of the addict population that corresponds to what the popular media are calling the Heroin Epidemic. Michael Botticelli, the director of the White House Office of National Drug Control Policy (ONDCP), told the New York Times that he believed this demographic shift is one of the primary reasons why attitudes about addiction are changing today:

> Because the demographic of people affected are more white, more middle class, these are parents who are empowered. They know how to call a legislator, they know how to get angry with their insurance company, they know how to advocate. They have been so instrumental in changing the conversation (quoted in Seelye, 2015, para. 7).

The conversation that he is referring to is one that involves slowly revoking the punitive policies of the past in favor of replacing them with funding used to provide treatment and other rehabilitative efforts. Though the Obama administration has done little in the way of actually changing policy, they have made strides in an attempt to alter public opinion on addiction. First, the administration contends that addiction is not a result of moral failing,

but is instead a "disease of the brain that can be prevented and treated" (ONDCP, 2015, para. 1). With this movement towards a more health-based approach, the administration has reduced sentencing disparities (Fair Sentencing Act, 2010) and advocated for a harm reduction approach by attempting to end the ban on federal funding for syringe access. (The administration lifted the ban in 2009, but Congress voted to reinstate it in 2011.)

These changes in approach are especially important due to the increasing use of all types of substances throughout the country, though much of the concern has been placed on the increase in prescription drug and heroin abuse. The CDC has found that not only have heroin overdoses nearly quadrupled since the early 2000s, but there has also been an increase in use among groups that have historically had low rates of heroin use (CDC, 2015). In the 1960s, individuals who sought treatment for addiction were primarily young men, with an average age of 16.5, living in urban areas and approximately 80% of them began their opioid use through heroin (Cicero, Ellis, Surratt, and Kurtz, 2014). In contrast, modern users were older (average age of approximately 23) men and women living in less urban areas (75.2%), who began abusing opiates through prescription medication (75%) (Cicero et al., 2014). Further, almost 90% of individuals who tried heroin for the first time in the last decade were white (Cicero et al., 2014).

This change in route to abuse is also significant in the understanding of drug addiction in the United States today. Whereas in the past, criminality and addiction were inextricably tied through the illegal nature of abused substances, modern day substance abusers can potentially follow a legal route towards addiction through legitimate prescriptions from physicians. Prescription drug addiction refers to a variety of behavioral patterns associated with the non-medical use of prescription medication. In this case, non-

medical refers to instances where the dose or frequency of use does not match the prescriber's instructions or the prescription itself is illegitimate (Compton and Volkow, 2006; McHugh, Nielson, and Weiss, 2015). Over the past 20 years, prescription drug abuse has increased by 250 percent (Substance Abuse and Mental Health Services Administration (SAMHSA), 1998; SAMHSA, 2013). Further, in the past 10 years alone, the number of individuals entering treatment for prescription opioid use has increased by 500 percent (SAMHSA and CBHSQ, 2014) and accidental overdoses on prescription opioids increased by 400%, which surpasses the number of overdose deaths from heroin, cocaine, and other stimulants combined (Calcaterra, Glanz, and Binswanger, 2013). Though prescription opioids have received a substantial amount of attention through the so-called heroin epidemic mentioned above, a host of other prescription medications are experiencing misuse, including benzodiazepines, ADHD medications, sleeping pills, and many over-the-counter medications such as cough syrup.

2.4. Conclusion

This chapter used an abbreviated history of American drug policy to contextualize the current state of addiction and addiction treatment in the United States today. Beginning with the Harrison Narcotic Act of 1914, addiction and addiction treatment left the medical world and moved into the world of criminality. Through changing public opinion and the onslaught of laws aimed at increasing penalties associated with drug possession and use, addiction became inextricably linked with criminality. Recently, however, the demographic profile of drug users has begun to shift away from the poor, black stereotype from earlier in the twentieth century towards a primarily white and middle-class segment of the population. Many believe that this shift, along with the usage shift towards prescription

and over-the-counter drugs has paved way for addiction to re-enter the medical sphere. The increase in prescription drug addiction indicates that, in a sense, addiction is becoming normalized. No longer is it possible to relegate addiction to poor, predominately black neighborhoods as Anslinger did in the mid-1900s. Though strict laws regarding the possession and use of illegal drugs remain, addiction itself is no longer constrained by illegal drugs.

CHAPTER 3

RESEARCH POPULATION AND SETTING

3.1. Introduction

Substance use has skyrocketed among college age students. Beyond this, however, there are several other reasons why college students at the UA are appropriate subjects for this study. Despite reports detailing rampant substance use on campuses across the country, the proportion of students who receive treatment for substance use disorder is substantially lower than expected. Further, ethnographic literature on college life exposes the deep roots of substance use in campus culture. At the UA, these roots could possibly be traced to the ease of access of bars near campus, the high rates of involvement in Greek life organizations, and the commitment to celebrating the Crimson Tide football team.

3.2. Increasing Substance Use

Though increasing opioid abuse is undoubtedly a concern, the National Survey on Drug Use and Health (NSDUH), conducted by SAMHSA shows that substance use is remaining steady in nearly all categories (2015). Results from the 2014 reports are shown in Table 1, below.

Table 3.1. Lifetime Use of Substances Reported in the 2014 National Survey on Drug Use and Health, Divided into Age-Groups (in percent)

		Alcohol	Cigarettes (any use)	Illicit Drugs	Cocaine	Hallucinogens	MDMA	Heroin	Marijuana/ Hashish	Methamphetamine	Psychotherapeutics (Nonmedical Use)	Pain Relievers	Stimulants
Ages 12 or Older	2012	82.3	61.9	48	14.5	14.6	6.2	1.8	42.8	4.7	20.9	14.2	8.3
	2013	81.5	61.8	48.6	14.3	15.1	6.8	1.8	43.7	4.7	20.3	13.5	8.3
	2014	82.1	61	49.2	14.8	15	6.6	1.8	44.2	4.9	20.5	13.6	8.5
Ages 12 to 17	2012	32.4	17.4	24.2	1.1	3.3	2	0.2	17	0.6	10	8.3	2
	2013	30.8	15.7	23.3	0.9	2.8	1.5	0.2	16.4	0.5	8.8	7.3	1.8
	2014	29.6	14.2	23.3	0.9	2.5	1.2	0.1	16.4	0.7	9.2	7.3	2.1
Ages 18 to 25	2012	84.4	59.5	57.8	12.3	17.6	12.9	1.9	52.2	3.1	28.1	22.4	9.8
	2013	83.8	57.9	57	11.6	17.6	12.8	1.8	51.9	3	26.6	20.8	9.4
	2014	83.4	56.1	57.9	11.1	16.6	12	2	52.6	3	26.3	20	9
Ages 26 or Older	2012	88.1	67.9	49.3	16.5	15.4	5.6	1.9	44.4	5.5	21	13.6	8.8
	2013	87.3	68.1	50.2	16.5	16.2	6.4	2	45.7	5.5	20.6	13	8.8
	2014	88.3	67.5	50.8	17.1	16.2	6.4	2	46.1	5.7	20.9	13.3	9.2

Note: Table is modified from National Institute on Drug Abuse (2015). *National Survey of Drug Use and Health.* Retrieved from https://www.drugabuse.gov/national-survey-drug-use-health*; Data originally derives from* Substance Abuse and Mental Health Services Administration (2015). *Behavioral Health Trends in the United States: Results from the 2014 National Survey on Drug Use and Health.* Retrieved from http://www.samhsa.gov/data/sites/default/files/NSDUH-FRR1-2014/NSDUH-FRR1-2014.pdf

Several trends can be observed in these data. First, when considering all age groups combined together, the rise or fall of substance use comes down to a mere fraction of a percent. However, when broken down, a pattern begins to emerge. In nearly every drug category listed above, there was a decrease in usage between 2012 and 2014 for individuals aged 12 to 17. Another study showed that, among teens, rates of the use of cigarettes and alcohol and the abuse of prescription pain killers are down since 2013, though the rates of marijuana use have remained constant, and rates of e-cigarette use are high (Johnston, O'Malley, Bachman, Schulenberg, and Miech, 2015). These results add to a nearly two-decade downward trend in rates, which could indicate that prevention efforts aimed at high schoolers are working. This decrease in use among younger teenagers corresponds to the shifting demographics of use presented above and highlights college-aged individuals as the next potential target group

When moving into the 18 – 25 age group, there is a large jump in usage levels. In most groups, usage at least doubles, but cocaine, MDMA, and heroin all experience 10 times as much usage in the 18-25 as in the 12-17 age group. Further, in a majority of categories, the usage rate decreases between the 18-25 and 26 and older groups. This suggests that there is not only an impetus for individuals in the 18-25 age group to begin using substances, but there is also a deterrent as people age. Thus, particular attention should be focused on the 18-25 age group, particularly on how they understand addiction and how that understanding relates to how they view others who use drugs.

3.3. Rates of Substance Abuse on Campus

Entrance into undergraduate collegiate programs marks the beginning of a critical period that has been associated with a significant increase in the use of alcohol (Hartzler and Fromme, 2003) and other substances. In a large representative study of college students across the United States, 76.1% of respondents reported that they had consumed alcohol in the past year and 63.1% reported use in the past month (Johnston, O'Malley, Bachman, Schulenberg, and Miech, 2015). College students have also been known to engage in behaviors referred to as heavy episodic drinking (HED), which is defined as having 5 or more drinks in a row for men or 4 or more drinks in a row for women (Wechsler, Dowdall, Davenport, and Castillo, 1995). The rates of reported HED in the past 30 days are high for college students, though they have been somewhat steadily dropping since 1980 (Johnston, O'Malley, Bachman, and Schulenberg, 2013). However, some students bypass the definition of HED and report having 10 or more drinks in a row (14%) or 15 or more drinks in a row (5%) in the past two weeks (Johnston et al., 2013). The reports of other substance use are somewhat lower with 38.6 percent of students reported use of any illicit drug in the past

year, though only 20.8% reported use of an illicit drug other than marijuana (Johnston et al., 2015).

Studies have shown that these patterns of substance use increase the risk of developing either an alcohol-use disorder (AUD) or a substance-use disorder (SUD) (Jennison, 2004; Knight et al., 2002). Using the criteria laid out by the DSM-V, approximately 20% of college students could be diagnosed with an AUD (Wu, Pilowsky, Schenger, and Hasin, 2007). However, only 3.9% of these students receive any type of treatment or services for the AUD (Wu et al., 2007). This could be due to the lack of services available for college students or to the attitudes surrounding problematic behavior and treatment services. In other words, in order for individuals to seek treatment services, they must perceive that there is something that needs to be treated. This could indicate that college students do not believe that these types of behaviors warrant treatment at that stage in their lives. Another study showed that approximately half of college students with an AUD "mature out" of problematic drinking behaviors after graduating from college (Sher and Gotham, 1999).

Interestingly, though college-bound 12th graders have been shown to be less likely to engage in heavy drinking that their non-college-bound peers, this trend reverses after high school graduation (Johnston et al., 2015). College students have actually been shown to be more at risk for alcohol use than their contemporaries who are not enrolled in college (Johnston, O'Malley, Bachman, and Schulenberg, 2010; Substance Abuse and Mental Health Services, 2012). This occurrence of "catching up" has been primarily explained by college students leaving the parental home earlier and deferring marriage until later (Bachman, Wadsworth, O'Malley, Johnston, and Schulenberg, 1997; Bachman et al., 2002). Another

difference in the college versus non-college subgroups could be due to the types of living arrangements (such as residence halls and dorms) and participation in Greek life on campuses (Lee et al., 2006; Presley et al., 2002). Living on campus and being a member of a sorority or fraternity is associated with an increase in heavy episodic drinking (Dawson, Grant, Stinson, and Chou, 2004; Larimer et al., 2001; Wechsler et al., 2002) and marijuana use (McCabe et al., 2005). Further, student-athletes have reported more alcohol use, heavy episodic drinking, and alcohol-related consequences than non-athletes (Hildebrand, 2001; Leichliter, Meilman, Presley, and Cashin, 1998; Nelson andWechsler, 2003). However, reports of daily drinking are virtually the same between groups (4.8% in 2014 for college students, 4.1% in 2014 for non-college students), which suggests that most of college drinking is confined to the weekend (Johnston et al., 2015).

Though studies of non-alcohol drug use are growing more popular, studies on alcohol still appear more frequently in the literature. Studies that do discuss the prevalence data of all types of substance use on college campuses are typically reported in terms of large scale demographic reports (Johnston et al., 2010; Johnston et al., 2013; Johnston et al., 2015; SAMHSA, 2013) and very few have tackled the social context (Arria et al., 2008; Matto, Miller, and Spera, 2007) and biomedical aspects (Crippa et al., 2012; Kleber et al., 2007) associated with use. The study of illicit use of prescription stimulants among college students is gaining in popularity, as usage has increased from 2003 to 2013 (McCabe, West, Teter, and Boyd, 2014). This trend has been analyzed in terms of behavioral motives, such as the striving for better grades (DuPont, Coleman, Bucher, and Willford, 2008; Judson and Langdon, 2009; Low and Gendaszek, 2002; Teter, McCabe, LaGrange, Cranford, and Boyd, 2006) and recreational use (Bavarian, Flay, Ketcham and Smit, 2013).

In noting that all types of substance use are more prevalent among college students, it is important to discuss particular motives that could lead to this occurrence. When questioned about motives relating solely to alcohol, respondents report reasons such as to be social, to conform, to cope with negative affect, and to enhance experience (Cooper, Frone, Russel, and Mudar, 1995). Further, two of these motives, coping and enhancement, have been linked to increases in heavy drinking and alcohol-related consequences (Carey, 1993; Kassel, Jackson, and Unrod, 2000). Another study examined personality differences and levels of stress amongst collegiate drug users and found that neuroticism and high levels of stress were significant predictors of drug use (Coleman and Trunzo, 2015). Additionally, personality traits such as being extremely motivated to seek sensation and pleasure (Curcio and George, 2011; Del Boca, Darkes, Greenbaum, and Goldman, 2004; White, Kraus, and Swartzwelder, 2006) and a tendency to act without considering potential consequences (Adams et al., 2012) have been associated with heavy and problematic drinking.

3.4. Ethnography of College Life

These behaviors and motives can potentially be better understood through ethnographic research at colleges and universities. Though the issues listed above arguably affect students attending technical and community colleges, the majority of research into college student substance abuse has focused on attendees of four-year institutions (Kilmer and Grazioli, 2015). However, even the literature regarding these four-year institutions is somewhat scarce (Iloh and Tierney, 2014). Ethnographic research at higher education institutions can use spaces such as the classroom, a residence hall, or the entire college campus as a social unit (Erickson, 1984). Instead of a purely descriptive account,

ethnography seeks to portray events from the perspective of informants (Erickson, 1984) and ultimately allows the researcher to experience the world from this point of view (Cousin, 2009; Lincoln and Guba, 1985).

One of the first quasi-ethnographic studies of college life was conducted by Moffatt in 1989, wherein he attempted to detail campus life at Rutgers University. Moffatt noted that in every sphere of college life (i.e. the classroom or the residence hall), students engage in social interaction with peers who share very different viewpoints from themselves (1989). Unlike high school, where students still lived with their parents and attended school with individuals from the same area as them, college opens the door for experiencing new types of people. This affects students in that it could stimulate interest in different viewpoints (Bowman, 2013; Tadmor, Ying-Yi, Chao, Fon, and Wei, 2012) through direct peer effects (Dey, 1997) or through the creation of "free spaces" that allow for the individual to develop personal ideologies without the interference of guardians to guide their thoughts (Morris, 1992; Polletta, 1999).

This has led some scholars to suggest that college campuses can encourage interethnic relations (Bowman, 2013), gender egalitarianism (Bolzendahl and Myers, 2004; Bryant, 2003; Cunningham, 2008; Harris and Firestone, 1998; Kingston, Hubbard, Lapp, Schroeder, and Wilson, 2003), and democratic norms (Bobo and Licari, 1989). Popular media has long suggested a dynamic relationship between college attendance and the indoctrination of liberal political views (Gross and Fosse, 2012; Mariani and Hewitt, 2008). However, many scholars argue that the effects of college attendance on student sociopolitical attitudes are confounded by family background (Kam and Palmer, 2008; Markus, Ryff, Conner, Pudberry, and Barnett, 2001; Schnittker and Behrman, 2012) and

institutional context (Dey, 1996; Dey, 1997). Dey (1997) found that while students who enter a politically liberal institution do tend to become more liberal, the converse is similarly true for students at conservative institutions. Thus, in a study of students' beliefs about a politically charged topic such as addiction, it is necessary to consider the role of student's political leanings.

After spending a week posing as a freshman during orientation and spending one night a week for two years sleeping in a residence hall, Moffatt (1989) also noted that the primary goal of students at Rutgers University was to achieve a steady balance between work and play. Unlike earlier generations who focused primarily on school work, the culture of college had changed to broaden the focus of student commitments to include not just school, but work and socializing, as well (Levine and Cureton, 1998; Moffatt, 1989; Nathan, 2005). After teaching anthropology for over 15 years at Northern Arizona University, Dr. Cathy Small underwent a similar experience as Moffatt when she enrolled at the university as a freshman under the pseudonym of Rebekah Nathan (Nathan, 2005). Facing a full course load, Small also found that student life primarily consisted of resolving time management tensions between classes, jobs, and leisure (Nathan, 2005).

Often, these social activities involve substance use. Further, it has become customary across popular media and academic journals alike to discuss on campus substance use in terms of culture (Alverson, 2005; NIAAA and USDHHS, 2002). However, Alverson (2005) points out that this "culture" does not simply include drinking behaviors. Instead, it includes all other aspects of socialization, such as the formation of friendships, relaxing and numerous other activities that are critical to having a fulfilling social life. Studies routinely show that while there are detriments to partaking in this "culture," such

as increased risk of sexual victimization (Abbey, 2002; Howard, Griffin, and Boekeloo, 2008; LaBrie et al., 2011; Maggs, Williams, and Lee, 2011; McCauley, Calhoun and Gidycz, 2010) and unsafe sexual behaviors (Piombo and Piles, 1996) that can lead to sexually transmitted diseases or unwanted pregnancy (Randolph, Torres, Gore-Felton, Lloyd, and McGarvey, 2009; Wechsler and Wuethrich, 2002), there are also positive outcomes, such as stress management (Green et al., 2001; Martens, Cox, and Beck, 2003; Zucker and Landry, 2007) and the development of a camaraderie between peers (Cashin, Presley, and Meilman, 1998).

However, despite numerous reports on the positives and negatives of college drinking, there are relatively few studies that take a qualitative approach and even fewer who consider the motives and effects of the drinking population on non-drinking students (Herman-Kinney and Kinney, 2013). Those who have studied non-drinkers have taken a quantitative approach that focused either on abstinence or recovering alcoholics (Lucas, Windsor, Caldwell, Rodgers, 2010; Powers and Young, 2008; Schuckit and Smith, 2010). Instead Herman-Kinney and Kinney (2013) sought to better understand the subjective experience of non-drinkers in college by questioning their motives for not drinking in an environment where drinking is the norm and their experience of stigma for going against the norm. They found that non-drinking students employ a number of strategies to avoid being labeled as a non-drinker, including the use of props to conceal abstainment (i.e. carrying around a near empty beer bottle) and sharing false stories of their drunkenness (2013).

It is interesting to note that there is a reversal in the stigmatized role between college and later in life. Whereas Herman-Kinney and Kinney discuss the stigmatized role

of the non-drinker in college, most studies regarding addiction stigma discuss the "addict" as the stigmatized role. From numerous studies, we know that college students partake in substance use and that a substantial amount of that use can be considered to be problematic in its intensity. In fact, nearly 20% of students could be diagnosed with a substance use disorder (Wu et al., 2007), but due to the social situation, the level of use that is typically pathologized is normalized instead. Thus, more research needs to be conducted into how college students conceptualize problematic use, both in what it entails and what factors lead to it. This study seeks to better understand the factors and motives that college students believe lead to addiction and the knowledge they use to formulate attributions of stigma towards addicts.

3.5. University of Alabama College Life

The University of Alabama at Tuscaloosa was chosen for a number of reasons. First is a matter of convenience, as I could access a large number of subjects through the use of non-costly incentives such as extra credit and points towards class participation. Further, as with most colleges in the United States, UA participated in the U.S. Surgeon General and the U.S. Department of Health and Human Services (USDHHS) goal to reduce binge drinking on campus and has implemented standards set out by the NIAAA to help achieve this effort (UA Office of Student Conduct, 2016). Further, in accordance with the 1989 Safe and Drug-Free Schools and Community Act and the 1990 Clery Act, the University is required to provide a description of all drug- or alcohol-abuse education programs on campus and to report all alcohol and drug related violations in a given year.

The state of Alabama has traditionally been very conservative with regard to drug and alcohol policy. The state legislature passed the Carmichael State Prohibition Law in

1907 (United States Brewers' Association, 1910) and established the Alcoholic Beverage Control (ABC) Board in 1937, which means that the state banned alcohol for years before and after National Prohibition. Even today, Alabama still has one dry county (Clay County) and 24 partially dry counties out of the total 67 counties (Alabama ABC Board, n.d. a.). Additionally, even though the state blue laws have been struck down, only 9 counties and 16 cities within other counties allow for alcohol sales on Sunday (Alabama ABC Board, n.d. b.). Tuscaloosa County is one of the wet counties within the state, though it only allows the sale of alcohol on Sundays in the city of Tuscaloosa, itself (Alabama ABC Board, n.d.b.).

Tuscaloosa County is home to several higher learning institutions, including the UA, Stillman College, and Shelton State Community College. Most of Tuscaloosa's residents have at least a high school diploma or higher (86.6%) and more than a quarter have a Bachelor's degree or higher (27.0%) (U.S. Census Bureau, 2015). The demographic makeup of the UA student body is somewhat less diverse than the County at large. The city is predominately white (66.0%), with a large black population (31.0%) and a small Hispanic community (3.3%) (U.S. Census Bureau, 2015). However, of the 37,100 students enrolled at UA, only 12% are black and 2% are Asian American (UA, 2016a). Further, nearly half of the students at UA are from Alabama (46.0%) and over half are female (55.0%) (UA, 2016a).

Social life on campus is also vibrant and multifaceted. With over 500 student organizations to choose from, there are many opportunities to find and participate in those that suit individual interests (UA, 2016c). UA also has one of the largest fraternity and sorority communities in the United States. The university has 61 social Greek-letter organizations that involve over 10,000 students, which is over 33% of the total university population (UA Division of Student Affairs, 2016). Though the Capstone has not been

included in the Newsweek or Princeton Review's list of party schools since 2011, social life and partying are still a major part of the culture. The school is situated right off of "the strip" and a few miles from downtown Tuscaloosa, which offer numerous bars and restaurants for students.

Further, football is a major part of the University of Alabama culture. In the past 7 years, the University's football team has clinched 4 National Championships, which has aided in the development of quite the cult following. During home game weekends, fans from the multi-state area flood Tuscaloosa in order to tailgate and to watch the Crimson Tide play. Massive tents, complete with widescreen televisions and outdoor cooking grills, cover nearly the entire surface area of the campus. As alcohol is not permitted inside Bryant-Denny Stadium, it is common for people to engage in day-drinking and drinking games in their homes, the bars around campus, and even on the University Quad prior to attending the game. However, according to the UA Alcohol and Other Drug Policy for students, drinking games and alcohol itself is prohibited from tailgating activities (UA Office of Student Conduct, 2016). The Campus Security Report (CSR) of UA reported 1222 liquor law violations that resulted in a disciplinary action/judicial referral and 25 that resulted in arrests in 2014 (2015). Similarly, there were 70 drug abuse violations that resulted in disciplinary actions/judicial referrals and 109 that resulted in arrests (2015).

UA claims to use a combination of education, prevention and assistance activities to promote a drug-free campus and workplace (UA, 2014). Prior to attending UA, incoming students must participate in the AlcoholEdu programs (UA, 2016b). These programs allow for the university to meet federal guidelines set out by the U.S. Department of Education and the U.S. Department of Justice (UA, 2016c). Additionally, resources are available for

students with a substance use disorder at the counseling center, University police station, the women's resource center, and the student health center (UA Office of Student Conduct, 2016).

3.6. Conclusion

College students at UA are an appropriate subject population for several reasons. First, studies have shown that college-aged individuals (18-25) are at a great risk for developing substance use disorder as rates of substance use increase dramatically during this time. Further, college students have been shown to use substances more frequently and intensely than their non-college peers, which indicates that certain facets of campus life could be triggering or exacerbating this issue. Potential factors include increased stress, due to both academic and social life pressures, as well as, the existence of an atmosphere where engagement is more accepted than non-engagement in substance use. In addition to convenience, UA was chosen as a research setting as a paradigm of college life. The prominence of the Greek life system and dedication to the football team has shaped a social life system that maintains a strong emphasis on substance use.

CHAPTER 4

THEORETICAL APPROACH

4.1. Introduction

The following chapter will discuss the theoretical framework used to inform this investigation. First, cognitive anthropological theory and methods are central to this study, as they provide a means to ensure the reliability and validity of data, without compromising the ability to draw context-specific interpretations. Further, anthropologists have long argued that substance use and addiction must be understood as something that is biocultural, and most people, perhaps without realizing, recognize that this is true. Through different experiences and life events, members of society develop varying understandings of the etiology of mental illness, and these lay conceptions have been shown to be a guiding factor behind public attitudes toward those with mental illnesses (Haslam, 2005). Stigma will be used as a lens to investigate these public attitudes. Finally, moral foundations theory was used in order to better understand how political beliefs and leanings relate to knowledge of addiction causality and also as an alternative hypothesis to explain stigma attribution.

4.2. Cognitive Anthropology

Cognitive anthropological theory and methods provide an excellent foundation for researching these beliefs about addiction causality. Essentially, cognitive anthropology

seeks to investigate cultural knowledge and, more specifically, individuals' knowledge of culture. "This perspective suggests that culture is composed of an interconnected framework of schematized, shared knowledge that constructs meaning, represents social reality, directs behavior, and facilitates the interpretation of behavior" (Collins and Dressler, 2008, p. 364; D'Andrade, 1984; 1999). Instead of viewing culture as a single, integrated whole, culture is understood to be made up of various cultural models that allow the individual to define and categorize everything in the world (Strauss and Quinn, 1994).

Generally speaking, an individual's approximation of a cultural model is thought to be composed of two different elements: the portion that is shared and the portion that is derived from individual experience (Dressler, 2005). In other words, cultural models are variably shared and not uniformly distributed throughout society (Anders and Batchelder, 2012; de Munck, 2000; Romney, Weller, and Batchelder, 1986). It is this sharing of cultural knowledge that forms the aggregate properties of culture (D'Andrade, 1984; Dressler, Balieiro, Ribeiro, and Dos Santos, 2005). Further, no two individuals hold identical configurations of a cultural model of a given domain (Handwerker, 2002). However, despite the lack of comprehensive agreement, cultural models still have the power to act as a social force (Strauss and Quinn, 1994). Cultural models aid the individual in deciphering not only behaviors of others, but, also, in formulating the correct behavior to perform in certain situations. In this way, they can be seen as interpretive devices and guiding tools for everyday and extraordinary situations. These categorizations limit the amount of work necessary to identify and respond to stimuli, as one is able to draw on past experiences and other schema for help. In the case of addiction causality, cultural models are important

factors shaping how we understand the plight of individuals with substance use disorder and respond to them.

Cultural domain analysis is used to determine elements embedded in particular cultural models (Borgatti, 1999). Unlike purely ethnographic analysis, cultural domain analysis minimizes observer bias by asking respondents to list aspects of the domain in question that are important to them or others like them. Further, informants are asked to organize the salient elements of a domain through pile sorting, which allows for multiple layers of research into the distribution of the domain, without the potential for losing cultural validity. In other words, meaning is inferred through the quantitative analysis of informant responses, instead of through conclusions drawn by the observer. This technique has allowed researchers to quantify ethnographic research in a way that was previously not possible.

Cultural consensus analysis (CCA) is a method developed by Romney and colleagues (1986) that is used to determine the degree of agreement among informants about specified cultural domains. CCA provides the evidence that individuals are drawing from a shared cultural model. Further, it operationalizes the degree to which a cultural model is shared by measuring the cultural competence of individual informants (Dressler et al., 2005; Romney et al., 1986). The consensus model provides a tangible connection between the individual and the group by analyzing how an individual's model corresponds to the derived group model. CCA also provides a weighted correct answer key, which is "…estimated by weighting the responses of each person by their competency and aggregating responses across people" (Weller, 2007, p. 340). Essentially, this

operationalizes cultural salience by attaching a numeric value to items of a domain based on their relation to the dimension of the domain in question (Sweet, 2010).

4.3. Biocultural Theory

Biocultural theory also serves as a foundation for this research. Researchers in the social sciences have long moved past reductionist views of health and illness to favor more robust accounts that incorporate a wide range of social and biological causes. Many studies have demonstrated a link between culture, biology and health (Cassel, Patrick, and Jenkins, 1960; Dressler, 1994; Dressler, 1999; Dressler and Oths, 1997; Oths, 1999; Scotch, 1963). Biocultural theory is based in the understanding that humans are both biological and cultural beings. The cultural confusion surrounding addiction is potentially due to the intertwining of biomedical and cultural aspects. However, neither approach is exclusive of the other, and, thus, can be seen as complements in the drive to understand addiction.

Given the tumultuous history of drug and alcohol policy in the United States, understandings of the causes of addiction are doomed to be fraught with confusion. The New York Times found considerable disagreement even amongst experts on the question of "What is addiction?" ("What is Addiction," 2014). The "expert" definitions emphasized a wide range of factors including poverty, personal choice, genetics, and spirituality (2014), that are so diverse one can ask if there is even an expert consensus on the causes of addiction. Thus, it seems reasonable to consider whether there exists an agreement among "non-experts" on the causes of addiction. Two primary motifs that continuously reappear in discussions of addiction causality are the addiction as "brain disease" and addiction as "moral deviance" arguments. In a sense, these notions are simultaneously universally accepted and disputed.

4.3.1. Addiction as Biological

The phrase "brain disease" is included in many influential definitions of addiction, including the official definition from the American Society of Addiction Medicine (ASAM, 2011). This insistence towards the biomedical could be due to the drive for federal funding in the study of addiction (Raikhel, 2015). This corresponds with the recent push by the Obama administration and other well-known agencies to consider addiction as purely a medical issue. The recent passing of the PPACA essentially placed substance abuse treatment at parity with other medical and surgical benefits, whereas prior to the expansion of the PPACA, substance abuse treatment and care was largely separate from the medical system. This is partly due to the lack of governmental funding available for treatment, but also due to the American conception of substance abuse and beliefs in how addiction should be treated.

Though the Affordable Care Act has the potential to open up treatment options for more individuals, it is necessary to note that the national standards and guidelines for approved treatment providers and programs has yet to be released. This means that even though individuals have had the right to seek treatment for substance abuse problems, it is unclear and often difficult to determine which treatments are covered and which are not. Furthermore, though the bills claim to focus on increasing quality and quantity of treatment, there have been no developments of quality measures for substance use disorder treatment facilities (Watkins, Farmer, DeVries, and Hepner, 2015). Though the PPACA provides a list of measures for evaluating Medicaid treatment, there is only one measure that is directly related to substance use disorder (Watkins et al., 2015). Thus, there is no way of actually insuring that individuals are receiving quality biomedical

treatment or that there is sufficient capacity within programs that will provide access to treatment.

The DSM-V also included many changes from the previous edition in the way that addiction is diagnosed. This includes morphing substance abuse and substance dependence into a single disorder called Substance Use Disorder that can be viewed on a spectrum from mild to severe (APA, 2013). This change in terminology is a direct call for a movement away from the traditional "rock bottom" definition of addiction, advocated by Alcoholics Anonymous and its sister programs. Additionally, previous diagnoses of substance abuse disorder required the presence of only one symptom, whereas the mild form of the new disorder requires at least 2-3 symptoms. Though each substance is considered to be a separate disorder (e.g. alcohol use disorder, opioid use disorder), the criteria for establishing disorder are consistent throughout (APA, 2013). Potential symptoms include problems controlling intake of alcohol, continued use of alcohol despite problems resulting from drinking, development of a tolerance, drinking that leads to risky situations, or the development of withdrawal symptoms (SAMHSA, 2014).

However, arguments against a strictly biomedical model of addiction have long arisen from a wide range of researchers, including psychiatrists, psychologists, behavioral economists, and philosophers. The first criticism of the "brain disease" model is that it often ignores the finding that many individuals who have used opiates or other addictive substances regularly and heavily for a long period time often are able to stop without medical or therapeutic intervention (Robins, 1993). Others argue that a "brain disease" model of addiction omits critical factors in the development of addictive behavioral patterns such as choice, agency, and social environment (Foddy and Savulescu, 2010;

Heyman, 2009; Levy, 2012; Satel and Lilienfeld, 2013). Still, others contend that medicalizing addiction is merely the renaming of conditions that have long been understood as mere "problems of living," moral deviance, or the long-term interaction between individuals and subpar environments (Keane, 2002; Peele, 1985; Reinarman, 2005). Further, medicalizing addiction is often seen as a pseudo-panacea that seeks to provide medical attention to individuals with substance use disorder, but, instead, merely serves to obscure patterns of structural violence (Bourgois, 2003; Singer, 2007). Additionally, explicitly defining an illness through medicalization is typically followed by a massive increase in diagnosed cases (Conrad and Schneider, 1992).

4.3.2. Addiction as Cultural

No matter the approach, the physiological effects of substances cannot fully address the culturally patterned responses of substance use. To understand the pitfalls of the "moral deviance" model of addiction, one need only to consider the history and effects of American drug policy on the American addict population. However, the "moral deviance" model can perhaps be better understood as an extreme version of a cultural approach to understanding illness. Anthropologists have long understood that alcohol consumption is culturally dependent since the studies completed by Dwight Heath in 1962. Heath described the relationship of the Bolivian Camba to alcohol as normative, even though their actions would be seen as destructive and dangerous to most people living in the United States. He describes a cycle that involves members of society drinking an undiluted distillate of cane sugar that contains 89% ethyl alcohol until they pass out. Upon waking, they continue to imbibe until the alcohol is completely consumed or they have to return to work (1962). While this behavior is common and expected within the group, Heath (1962)

neither observed evidence of dependence or loosening of inhibitions surrounding intoxication.

The Reichel-Dolmatoff's (1961) ethnographic account of the Mestizo village of Aritama in northern Columbia details a similar lack of disinhibitions. Members of the culture maintain similar "masks of seriousness" regardless of the levels of consumed alcohol. The same goes for inhabitants of Ifaluk, a small atoll found in the Caroline Islands of the South Pacific (Burrows and Spiro, 1953), and Takashima, a fishing island off the coast of Japan (Norbeck, 1954), where members maintained non-aggressive demeanors. However, despite MacAndrew and Edgerton's (1969) demonstration that intoxication does not act on the brain in a way that leads to the removal of inhibition, more often than not disinhibition is understood cross-culturally as a symptom of intoxication.

In this sense, it is plainly apparent that no symptom is pre-cultural and moderation is culturally constructed. This theory is also not a new one. Chandler Washburne (1961) demonstrated that individuals have preconceived notions about the effects of drugs and alcohol and those notions reflect culturally patterned ideals of behavior. MacAndrew and Edgerton (1969) furthered this idea with their concept of "within-the-limits." Every society recognizes "permissible alterations in behavior from normal, sober comportment when alcoholic beverages are consumed, but these alterations are always 'within limits'" (Marshall, 1979, p. 453).

Furthermore, societal expectations and allowances of behavior vary widely based on situation. For example, Ritchie (1963) discussed differences in behavior among the Maori of North Island, New Zealand when engaging in consumption of alcohol at drinking sessions and drinking parties. Though similar amounts of alcohol were consumed at each,

individuals engaging in drinking sessions remained subdued in their behavior, while parties were often more boisterous. A similar argument can be made for generational differences in behavior when considering appropriate behavior for an individual in college and an older adult. Thus, from this conception of intoxicated behavior, it is reasonable to assume that alcohol and other substance abuse occurs when individual behavior exceeds the realm of cultural expectation. However, with cultural expectation constantly shifting, it is nearly impossible to operationalize this definition of addiction when determining who does and does not require treatment.

4.3.3. Addiction as Biocultural

Potentially, the greatest confusion surrounding addiction causality stems not from the consideration of one of these primary models of thought, but from the lack of a synergistic approach that draws from each of them. Instead of looking at the cultural and biological as two divergent ends of a spectrum, many argue that there is more to be gained in the study of addiction by looking at the ways in which the physiological effects of substance use interact with the cultural and social components (Campbell, 2010; 2011; Courtwright, 2005; Fraser, Moore, and Keane, 2014; Hansen and Skinner, 2012; Kaye, 2012; Kushner, 2010; Lende 2005; 2012; Saris, 2013; Singer, 2001; Vrecko, 2010; Weinberg, 2011). This consideration has led to the positing of biocultural and ecological accounts of addiction (Downey and Lende, 2012; Fitzgerald and Callard, 2014; Lock and Nguyen, 2010; Rose, 2013; Slaby and Choudhury, 2012). Interestingly, this shift of the social sciences to address and include physiological factors of addiction has been mirrored by researchers in neuroscience and psychiatry (Volkow, Wang, Fowler, and Tomasi, 2012).

I anticipate that through constructing a cultural model of addiction causality, the

inherent biocultural nature of addiction will be exposed through the presence of both biological and cultural factors in the model. In asking informants about causes of addiction at large, they will undoubtedly draw from what they know about the social and biological causes of addiction. Further, through pile-sorting and rating exercises, this study will allow for a better understanding of how individuals conceptualize and prioritize the intermixing of factors.

4.4. Stigmatization of Addiction

The above section brings a particular question to mind: if the consideration of addiction as purely biomedical is riddled with issues, why is there such a strong push for the medicalization of addiction in today's American society? The answer undoubtedly lies in the realm of stigma and stigma attribution. Erving Goffman (1963) first characterized stigma as a "spoiled identity," which reduces the individual to a soiled state that is no longer indicative of the entire human being. Stigma is "the phenomenon whereby an individual with an attribute which is deeply discredited by his/her society is rejected as a result of the attribute. Stigma is a process by which the reaction of others spoils normal identity" (Goffman, 1963, p. 3). This definition refers back to the ancient Greek usage of the stigma symbol to mark individuals who possessed negative characteristics relating to their moral character (Ben-Zeev, Young, and Corrigan, 2010). This distinction remains useful when considering the role of stigma in health and, even more so, in mental health.

Substance use and addiction have long been associated with stigma. As drug use became more and more intertwined with criminality, so too did drug users. Further, Courtwright (1992) compared addiction to venereal disease, in that both were contracted through "forbidden indulgence with evil associates" and had the potential to affect other

previously "innocent" individuals (p. 6). Through concepts such as "peer pressure," drug users gained a reputation of recruiting new members, which led to Richmond Hobson to refer to them as the "vampires" of society who will "recruit seven others in a lifetime" to join their way of life (Gray, 2013, p. 58). Hobson, born in Hale County, Alabama, was often referred to as "The Father of American Prohibition" (Ramsey, 1995) as he employed a biomedical explanation to argue against both the usage of alcohol and other drugs (Soderstrum, 2003). He claimed that alcohol was a "protoplasmic poison" that tore down the top part of the brain, which he believed corresponded with the seat of will power (quoted in Hobson, 1911). Thus, when considering how the folk psychiatry of addiction affects stigma attributions, reasoning must be understood in terms of a broader cultural and political context.

Modern interest in mental health stigma derives partially from a now well-known statement from the psychologist, Patricia Deegan, where she noted that "it is important to understand that we are faced with recovering not just from mental illness, but also from the effects of being labeled mentally ill" (Deegan, 1993, p. 10). She divulged her personal experience with mental illness and noted that often individuals who develop mental illness simultaneously experience stigmatization and the results of that stigmatization are often as agonizing as the illness itself (1993). Later, in the first ever Surgeon General's Report on Mental Health, David Satcher noted that not only was mental illness an "urgent health concern" for the United States, but also that mental illness stigma was perhaps the greatest barrier to receiving adequate mental health care (USDHHS, 1999). He called for fact-based research to dispel the myths surrounding mental health care (USDHHS, 1999).

4.4.1. What is Stigma?

Modern understandings of mental illness stigma are slightly more nuanced than hypothetical markings on the persona of individuals. Link and Phelan (2001) divide mental illness stigma into distinct components that speak to the interrelated concepts of labeling, stereotyping and discrimination. The first component involves the determination of salient aspects of human difference. Differences between individuals are divided into those that do not matter in a social context (such as "hairy ears or vegetable preferences") and those that do matter in a social context (such as "skin color and sexual preference") (Link and Phelan, 2013, p. 530). For mental illness, these distinctions often come in the form of cues such as psychiatric symptoms, social-skills deficits, physical appearance, and common diagnostic labels (Corrigan, 2000; Penn and Martin, 1998). Another example of this resides in the mere existence of The Diagnostic and Statistical Manual of Mental Disorders (DSM), wherein characteristics are systematically presented to distinguish between those that are mentally ill and those that are not (APA, 2013).

The second stage occurs when the stated difference is associated with negative attributions, which leads to the third stage of using the difference to signify a distinction between "us" and "them" (Link and Phelan, 2001). Classically, this type of distinction is made between individuals of various ethnic or national groups – we are American, whereas you are not (Morone, 1997). However, in the case of mental illness, the individual takes on an identity that is more powerful than other groups to which they belong (Link and Phelan, 2013). In other words, the status of being an "addict" overwrites all other states of being. This leads to the development of stereotypes about the marked group (Corrigan, 2007; Krueger, 1996; Lauber and Rossler, 2007). The fourth stage emerges with the development

of emotional responses toward individuals marked as other (Link and Phelan, 2013). Feelings of anger, irritation, anxiety, pity and fear have been identified as primary responses towards individuals with mental illness (Link, Yang, Phelan, and Collins, 2004). These, in turn, have the potential to alter how stigmatizers behave around individuals with mental illness (Weiner, Perry and Magnusson, 1988). Finally, Link and Phelan's (2001) ultimate stage culminates in the status loss and discrimination experienced by the individual due to the components above.

Moving forward from Link and Phelan's (2001) conception of stigma, it is then possible to divide stigma into three distinct categories based on who is considered to be the subject. These levels are self-stigma, label avoidance, and public stigma (Corrigan, Markowitz, and Watson, 2004; Corrigan and Watson, 2002). Self-stigma and label avoidance occur from the perspective of individuals with mental illness. Self-stigma occurs when the afflicted individual is both aware of and agrees with stereotypes associated with addiction and applies these negative feelings inward (Corrigan, Larson, and Rusch, 2009). Further, label avoidance occurs when people intentionally do not seek out mental health services, because they seek to avoid taking on the stigmatized label (Ben-Zeev et al., 2010).

Many studies of addiction and mental illness stigma have revolved around these concepts. The first major study concerning addiction stigma was completed by Biernacki (1986). Primarily, he focused on individuals who had recovered from problematic heroin use without any formal treatment and found that those who were successful tended to find success after their "addict" identity began to conflict with their "non-addict" identity (1986). In other words, individuals in his study overcame their addiction because they sought to no longer experience the stigma associated with substance abuse. Later studies

have shown that societal stigma associated with substance use and abuse creates a vicious cycle of disapproval for users, so much so that it may discourage or prevent them from seeking proper treatment (Regier et al., 1993), as well as create a negative environment for the addict and their social network (Farina and Felner, 1973; Link et al., 1987; Wahl, 1999; Wright, Gronfein and Owens, 2000). Furthermore, the internalization of stigma reduces self-esteem (Corrigan, Faber, Rashid, and Leary, 1999; Rosenberg, 1965), self-efficacy (Bandura, 1989), and confidence in the future (Corrigan, 1998; Holmes and River, 1998).

Though undeniably important, studies that focus solely on self-stigma and label avoidance leave out a critical factor of stigma – its source. Public stigma persists as a combination of three key constructs: stereotypes, prejudice, and discrimination (Corrigan, 2004). Stereotypes are widely held and vastly oversimplified beliefs about a particular group of people. In terms of addiction, these could include that individuals are dangerous (Corrigan et al., 2002), will not recover, or that the disorder is caused by moral defect (Pescosolido et al., 2010). Prejudice refers to preconceived negative feelings toward a person or group. This is expressed through the degree of social closeness one is willing to engage in with an individual with substance abuse disorder (2010). Finally, discrimination implies action against someone that conveys and perpetuates a sense of inequality (Krieger, 1999). Barry and colleagues (2014) showed that people are more likely to have negative attitudes toward individuals with substance use disorders than those with other mental illnesses.

This study will primarily focus on two types of stigma related to substance use disorder: personal responsibility and dangerousness. Levels of attributed stigma toward individuals with substance use disorder were determined by using a modified version of

Corrigan and colleague's (2002) attribution questionnaire, where "persons with substance use disorder" was used in place of "persons with mental illness." Two pathways of personal responsibility were explored. In the first, the individual was presumed to have a complete lack of responsibility, which led to a pity response from the onlooker. Whereas, in the second, the individual was presumed to be completely responsible for their status, which led to an anger response from the onlooker. Each of these potential responses then impacted whether or not a person would be willing to or thought that they could help someone with substance use disorder. In contrast, the dangerousness model is comprised of three constructs: dangerousness, fear, and avoidance. According to Corrigan and colleagues (2002) model, attributing a person's behavior as dangerous leads to fear, and fear leads to avoidance.

4.4.2. Attribution Theory

One way to combine knowledge about substance use disorder and stigma is to use attribution theory. Instead of looking at the effects of stigma on the stigmatized, attribution theory analyzes how the social perceiver forms judgments based on information present (Fiske andTaylor, 1991). Proposed by Heider (1958) and developed by Weiner (1974), it is concerned with the ways in which outsiders explain and understand events and illness happening to other people. Heider suggested that individuals could make two types of attributions: internal and external. Internal attributions suggest that the cause of a behavior stems from attitude, character, or personality of the person in question, whereas external attributions draw context from the social situation that the person is in (Heider, 1958).

Using cognitive anthropological theory and methods discussed earlier, it is possible

to empirically determine the factors that individuals favor in explaining the development of substance use disorder. Essentially, each element in the cultural model of addiction causality can be looked at as an attribution. However, simply the presence of an element in an individual's cultural model or knowledge of a cultural stereotype does not necessarily indicate endorsement of that element/stereotype (Devine, 1989; Dressler, Bindon, and Neggers, 1998; Jussim, Nelson, Manns, and Soffin, 1995). Instead, it is the endorsement of these stereotypes and other negative attributions that leads to stigmatizing actions (Corrigan, Markowitz, Watson, Rowan, and Kubiak, 2003; Corrigan et al., 2009; Devine, 1995). Thus, through using cultural consensus theory, it is possible to directly measure the degree of endorsement of particular attributions and compare those endorsements to levels of attributed stigma, in order to ultimately understand the source of stigma.

4.5. Moral Foundations Theory

The status of substance use/abuse as a politically charged subject has been discussed at length in earlier chapters. Thus, it is necessary to consider the role political leanings and beliefs in how individuals understand the cultural model of addiction causality and the attribute stigma. Instead of directly asking informants about their political views, this study used the MFQ to ascertain differences in key facets of morality. As conservatives and liberals have been shown to endorse these facets in different manners, these data will allow for a more in depth analysis how those facets interplay and lead to greater or lesser attributions of stigma.

Moral foundations theory arose as a part of a movement towards understanding the role of automatic, or intuitive, processes involved in judging both the morality of situations and other people. It "argues that human groups construct moral virtues, meanings, and

institutions in variable ways by relying, to varying degrees, on five innate psychological system" (Koleva, Graham, Haidt, Iyer, and Ditto, 2009, p. 4). By inducing immediate positive or negative internal reactions to real world situations, these five foundations essentially guide how individuals make moral decisions. In other words, situations trigger one or more of these five foundations, which, in turn, leads the individual towards making a decision about whether or not an action was moral. In theory, these moral intuitions are found cross-culturally, though they differ in the relative construction and endorsement of each of the foundations (Haidt and Graham, 2006; Haidt and Joseph, 2007; Shweder, Much, Mahapatra, and Park, 1997).

Several attempts have been made to categorize the moral intuitions based on the content domain of the moral violation. In naming these foundations, Shweder and collaborators (1997), followed by Haidt and Joseph (2007) posited a set of underlying, unifying principles that essentially underlie how individuals make moral decisions. Shweder and colleagues (1987) first devised these domains through cluster analysis of elements of morality in India and the United States, and the usefulness of the foundations was later validated in both Brazil (Haidt, Koller, and Dias, 1993) and the United States (Haidt and Hersh, 2001; Jensen, 1997). The first domain was referred to as "autonomy" and was associated explicitly with the rights of the individual. "Community" refers to the ethics involved with protecting the rights and traditions of the group, as well as, to maintaining loyalty to the group. Finally, "divinity" is associated with the ethics that maintain purity and prevent degradation, contamination, pollution.

Haidt and Joseph (2004; 2007) and Haidt and Graham (2007) expanded Shweder and colleagues' (1997) broad domain categories into five more precise domains in order to

"go beyond discourse patterns and search for the psychological systems that give rise to moral intuitions around the world" (Haidt and Graham, 2006, p. 6). Each of their foundations derived from independent evolutionary histories that gave rise to their intuitive functions today. Haidt and his collaborators repeatedly relate their five foundations to the function of the four types of taste buds on the human tongue, in that the production of an affective response is nearly immediate upon contact, but the type of response is dictated by the specific papillae, or foundation, triggered.

Moving forward from Shweder et al.'s (1997) clusters, Haidt and Joseph (2004) conceptually split "autonomy" into "care/harm" and "fairness/cheating." According to Haidt (2012), the "harm" foundation "makes us sensitive to signs of suffering and need; it makes us despise cruelty and want to care for those who are suffering" (p. 178-179). Furthermore, the foundation moves individuals to feel approval towards individuals who prevent or relieve harm and disapproval towards those who cause harm (Haidt and Graham, 2006). Evolutionarily speaking, the "fairness/cheating" foundation likely developed from Trivers (1971) concept of reciprocal altruism (Koleva et al., 2009). This foundation guides individuals towards potential partners who would be cooperative and would likely engage in reciprocal altruistic acts, while simultaneously leading people away from others who may exploit them (Haidt, 2012).

The "community" domain was split into the foundations of "ingroup loyalty" and "authority." In the original paper outlining the foundations, Haidt and Joseph (2004) kept these merged into one "authority" foundation, but noted that "ingroup" was likely its own separate configuration. These were officially split and discussed separately by Haidt and Bjorklund (2007) and Haidt and Joseph (2007). Humans and other animals have a long

history of living in small defined groups wherein insiders are strongly cared for and trusted and outsiders are feared and mistrusted. The valuing of those individuals who sacrificed for the group and the spurning of those who betray the group effectively led to the development of values such as loyalty, patriotism, and heroism in most cultures (Haidt and Graham, 2006). Thus, the "ingroup" foundation sensitizes us towards awareness of potential betrayal by individuals both in our group and outsiders to the group. For the evolutionary basis of the "authority" foundation, Haidt and Graham (2006) point to the "long history of living in hierarchically-structured ingroups" (p. 8). In these stratified groups, some individuals will inherently be of higher rank than others, which permits them access to greater privileges, but also responsibility to take care of the group. This leads to the development of ideas about what it means to be a great leader and how those leaders should be treated by other members of society. Thus, the "authority" foundation ultimately alerts us to those who are 1) behaving appropriately while in a leadership role and 2) behaving appropriately in a subordinate role.

Finally, Shweder et al.'s (1997) "divinity" domain essentially remains the same, but is renamed as "purity." Haidt and Graham (2006) tie the development of the "purity" foundation to the coincidence of the transition to a meat-based diet and the rapid growth of the human frontal cortex. It has been argued that these somewhat simultaneous changes led to the development of the emotion of disgust, which is only experienced by humans (Rozin, Haidt, and McCauley, 2000). There appears to be both biological (avoidance of disease) and social (appearance; occupation) correlates to the emotion (Haidt and Graham, 2006). Often, these social links further manifest in judgments of bodily activities. Whereas

it is good to be seen as in control of one's body, it is impure or debased to be ruled by hedonistic desires (Haidt and Graham, 2006).

Measures of these five foundations have been used to consider the relative political conservativeness or liberalness of voters in the United States (Graham, Haidt, and Nosek, 2009; McAdams et al., 2008; van Leeuwen and Park, 2009). These studies have found that while political liberals tend to more strongly endorse the "care" and "fairness" foundations, political conservatives tend to more strongly endorse the "ingroup," "authority," and "purity" foundations. It has been noted that voters who regularly vote against their self-interest, do so for the sake of their values (Lakoff, 2004; Westen, 2008). Theoretically, these foundations are the tangible measures of these values and can be combined into an overall measure of trait progressivism. Thus, in a study of students' beliefs about a politically charged topic such as addiction, it is necessary to consider the role of student's political leanings, which is why this study utilized the Moral Foundations Questionnaire – 30 to illuminate potential differences in how students utilize key facets of morality (harm, fairness, liberty, loyalty, authority, and purity) to develop moral attributions (Koleva et al., 2009). Furthermore, this will allow for a more comprehensive understanding of the informants involved in the study and allow for direct insight into how cultural beliefs are tied to explanatory models of health.

4.6. Conclusion

In conclusion, four main theoretical orientations were used to inform this study: cognitive anthropological theory, biocultural theory, stigma, and moral foundations theory. Cognitive anthropology served as the bedrock for this work, as methods contributed to the elicitation of a cultural model of addiction causality. Further, as humans must be

understood as equally biological and cultural beings, biocultural theory will be used to fully understand the etiology of addiction. As substance use and addiction has long been associated with stigma, stigma attribution will be used to better understand public attitudes towards individuals with substance use disorder. Finally, moral foundations theory will allow me to draw connections between how individuals make moral attributions in general and how individuals make moral attributions towards individuals with substance use disorder.

CHAPTER 5

METHODS

5.1. Introduction

This chapter details the mixed-methods approach undertaken in this cross-sectional study. Students were chosen as the subjects for this study, because individuals in the 18-25 age range are especially at risk for developing substance use disorder due to binge drinking on college campuses and other factors, such as high levels of stress and a heavy emphasis on social lives. Additionally, the social networks of individuals in this age range have been shown to be especially salient in the decision-making process. This makes students excellent subjects for establishing how peers think about substance use disorder and formulate attributions of stigma based on those thoughts. The University of Alabama provides the setting for gaining access to this population. Cognitive anthropological methods were used to investigate the existence of a cultural model of addiction causality, which will elicit how members of society understand the causes of addiction. The model was assessed throughout three phases of freelisting, pile-sorting, and rating, and confirmed using cultural consensus analysis.

All interviews were conducted throughout the summer of 2015. Prior to beginning data collection, this study was reviewed and approved by the University of Alabama's Institutional Review Board (Protocol ID: 6765). The first phase of data collection and

analysis consisted of the elicitation of the shared model of addiction causality and was completed during early July 2015. The 2nd phase was completed during the following two months of July and August and the final phase was finished during the first week of classes in fall 2016.

5.2. Phases I and II: Freelisting and Pile-Sorting

Sampling for the first phase of the study was two-fold. First, convenience sampling was employed through the Anthropology 102 class in the fall of 2014. Dr. Weaver announced in class that participation in the study would serve as one of the opportunities to receive extra credit in the course. The students were also informed that interviews would take approximately 5-10 minutes and they were free to schedule an appointment with the researcher at their leisure. Thirty students participated in the study at this time. A further nine students were selected through convenience sampling at the University of Alabama in June of 2015. Each of these students had a summer class that was held in ten Hoor Hall and had arrived early for that class. Participants were asked if they could spare 5-10 minutes to participate in the study and were informed that they would not receive any form of compensation for their participation. The Phase I Interview schedule is presented in Appendix A. The sample completing the free-list task had a mean age of 20.25 and was predominantly female (71.79%). All participants were currently enrolled at UA and there were 12 freshmen, 9 sophomores, 12 juniors, and 6 seniors.

After obtaining basic demographic information, steps were taken to elicit the cultural model of addiction causality. Participants were asked to list all potential causes of addiction that they believe or they believe others believe maintain some power in the ultimate development of addiction to drugs or alcohol. A total of 37 terms were generated

by informants and 28 terms were selected for inclusion in the model, which best represents how college students believed others became addicted to drugs and alcohol. The second phase of the study focused on conducting pile-sorting interviews with these 28 terms and eliciting a construction of informants' version of stereotypical addicts and ideas about how those individuals seek and receive treatment for substance use disorder in American society. For this stage, professors offering summer classes at UA were emailed and asked for their permission to speak to their class about participating in this study. Several professors offered extra credit in their course in exchange for participation: General Experimental Psychology (PY 355), Personal Health (HHE 270), and Myth, Ritual and Magic (REL 419). A total of 38 informants were included in this phase: 23 participants were from PY 355, 11 were from HHE270, and 4 were from REL 419. No demographic information was collected from these individuals, besides ensuring that each person was in the 18 to 25 age range. Both the pile-sorting and semi-structured interview portions were audio recorded, transcribed, and analyzed for recurrent themes.

Following the pile-sorting section, informants were asked a series of questions aimed at ascertaining their conception of an addict and their understanding of the state of addiction and addiction treatment in the United States today. The second part of the interview involved questions regarding the informant's personal experience with substance abusers. The purpose of the second half of the interview was to determine if the individual's ideals about the stereotypical addict are informed by personal experiences with friends or family members abusing drugs/alcohol. A complete list of interview questions can be found in the Appendix B.

Each of the 28 salient terms identified in phase I were written onto index cards,

randomized, and given to each of the informants at the beginning of the interview. Participants were asked to perform an unconstrained pile sort, where cards are sorted based on their similarity to each other. The only restriction was that respondents could not create a single group that encompassed all of the cards. This technique allowed an estimation of the ways in which the cultural domain of addiction causality was cognitively arranged in the shared mental map. After the cards had been sorting into piles, informants were asked to explain how and why they sorted the cards the way they did.

The piles were coded and analyzed with ANTHROPAC to create a proximity matrix for each informant. These proximity matrices are essentially numerical representations of the relative similarities of each of the elements in the cultural model. Each individual's matrix had a total of 28 rows and 28 columns, wherein each cause in the cultural model of addiction causality represented a single row and a single column. Thus, each cause has an intersecting cell in the matrix with every other cause in the model. If the informant sorted two causes together, a "1" was placed in these shared cells, whereas, if the informant did not sort the causes together, a "0" was placed in the shared cell. ANTHROPAC then formulates an aggregate proximity matrix by averaging all of the individual proximity matrices together. Each cell in the aggregate proximity matrix represents the proportion of times each pair of causes were sorted together. This aggregate proximity matrix can then be input back into ANTHROPAC to perform nonmetric multi-dimensional scaling and cluster analysis (Borgatti, 1996).

Nonmetric multi-dimensional scaling was used to map the items in two dimensions, based on how often informants grouped them together. A set of coordinates is calculated for each item in a way that ensures the Euclidian distance between points corresponds

with the properties of the aggregate proximity matrix (Borgatti, 1996). This essentially creates a diagram of similarities and differences among the items in the domain by determining a set of coordinates for each item on a plot. The degree of proximity on the MDS plot indicates relative frequencies of co-appearance in piles: closer items were sorted together often, while further items were rarely or never sorted together.

Next, the aggregate proximity matrix was used to perform Johnson's hierarchical cluster analysis in ANTHROPAC. Beginning with each of the individual items in their own unique cluster, the algorithm then gradually agglomerates the items into clusters based on level of similarity. These divisions are notated by decreasing cluster values, which indicate the degree of heterogeneity within the cluster. Thus, at higher levels, when items are in a larger number of smaller groups, the items have a corresponding high degree of association between them. However, as the levels and the numbers of clusters decrease, the degree of heterogeneity within a cluster increases. Conventionally, the optimum number of clusters is subjectively determined by analyzing large changes in clustering statistics (Aldenderfer and Blashfield, 1984). A large change between levels indicates that there was a substantial increase in the heterogeneity among items, when the items were combined into an additional group. Thus, final item groupings were heuristically determined by starting at the lowest level and selecting the second large jump in level values. These distinct item groupings were then titled based on informant explanations of their groupings during the pile-sorting interview phase.

5.3. Phase III

The third phase of the study was multi-focal, in that it encompassed rating tasks and measures of stigma attribution (through a modified version of Corrigan et al., 2002) and

political progressivism (according to Moral Foundations, Graham et al, 2008). A total of 212 students participated in this phase. Participants were asked to complete a single questionnaire, which included three rating tasks, a measure of stigma attribution, and a measure of moral foundations (Appendix C).

5.3.1. Rating Tasks

The rating tasks are used to score each cause across three potential dimensions:

1. Level of influence in the ultimate development of addiction
2. Level of control individuals are able to exert over the cause
3. Level of social/familial involvement in the cause

These dimensions were selected based on Phase II informants' explanations about how and why piles were sorted. Phase III participants were asked to rate each cause on a scale of 0 to 3, where 0 represented the lowest level and 3 denoted the highest level. Individual ratings are then coded into SPSS for cultural consensus analysis.

Cultural consensus analysis is a technique used to further explore the cultural model by determining inter-informant agreement and obtaining competency scores for each individual. Essentially, an informant by informant matrix of correlations is created and used to determine if there are any underlying latent variables that account for variation among respondents through an unweighted least squares factor analysis. If the resulting eigenvalue ratio is high (greater than 3:1 is the rule of thumb), then it can be inferred that all informants are drawing on a shared cultural model, in this case of addiction causality. However, a low eigenvalue ratio (less than 3) indicates a lack of consensus and could point to the existence of sub-populations and alternative models. The loadings on the first factor are referred to as the competency score for the individual; this coefficient is the correlation

between an individual's ratings and the ratings estimated for the group. A low competency score indicates that the individual is not familiar with the cultural model. Consensus was tested on all three dimensions.

For each of these dimensions, a cultural "answer key" was devised utilizing the first factor competency scores of each individual. Essentially, the "answer key" provides estimates of the culturally correct consensus ratings for each item on each of the dimensions. These estimates are calculated "by weighting the responses of each person by their competency and aggregating responses across people" (Weller, 2007, p. 340). Thus, those who are more competent in the model have more weight in the determination of the culturally correct ratings for each cause. The "answer key" allows for item-to-item comparison of ratings while taking into account the consensus pattern and informant competency level.

Residual agreement analysis was then used to determine the areas within the model that experienced subpopulation agreement. The first factor can be thought of as explaining the majority, but not all of the variance within the population. Thus, it is necessary to determine whether there exists any patterned deviation from the model. In cultural consensus analysis, the second factor describes the patterned disagreement with the overall consensus. This study used Dressler, Balieiro, and Dos Santo's (2015) method for determining residual agreement, which involves subtracting the item value of the cultural answer key from each individual's distinct item rating. Essentially, this method allows for the removal of the variation accounted for by the first factor and leaves only that which deviates from consensus. Then, individual item mean deviations can be calculated for presumed subgroups and correlated with each other. To maximize the differences between

the subgroups, RA coefficients were used to divide informants into three equal groups: low, medium, and high. Only individuals with low or high RA coefficients were used in the study of residual agreement.

Property Fitting Analysis (PROFIT) further tests the hypothesized structure of the MDS plot by assessing whether theorized dimensions or themes appropriately correspond to the multi-dimensional scaling map. Specifically, in this case, PROFIT analysis examines whether informants used a shared cognitive criterion to organize their thoughts about causes of addiction. The x and y coordinates of the causes on the MDS plot are used as independent variables throughout a series of multiple regression analyses, where, the dependent variable is the attribute which is being tested. In this study, a multiple regression analysis was run for each of the tested dimensions. Though, conventionally, a multiple R of 0.8 is required to conclude validity in the hypothesized dimension (Borgatti, 1996), I contend that lesser R values are not entirely bereft of potential interpretive gain. Thus, each of the hypothesized dimensions will be considered both in terms of overall strength and validity, as well as, in terms of hermeneutic value.

5.3.2. Moral Foundations Questionnaire

The Moral Foundations Questionnaire - 30 (Graham et al., 2008) was used in order to better understand how political beliefs and leanings relate to knowledge of addiction causality. This information will illuminate potential differences in how individuals use key facets of morality to develop moral attributions. The questionnaire ascertains differences in moral concerns, such as harm, fairness, loyalty, authority, and purity. There are two sections of the questionnaire. In the first section, respondents are asked to consider 15 statements in terms of how important each statement is to them when they're "deciding

whether something is right or wrong." For each of the five moral foundations, there are three statements that directly refer to them. For instance, the three "purity" statements are "whether or not someone violated standards of purity and decency," "whether or not someone did something disgusting," and "whether or not someone acted in a way that God would approve of." Then, in the second section, participants are asked to indicate their agreement or disagreement with a series of statements that either represent or contradict each of the foundations. Again, there are three statements for each foundation in this section.

For each person, the six items per foundation are averaged to produce an overall score. Reliability testing was completed by Koleva and colleagues (2009) and they found the scale to be reliable for each of the individual foundations. Further, Graham and colleagues (2009) demonstrated that conservatives and liberals have been shown to endorse these facets in different manners and devised protocol to calculate a "trait progressivism" score for each participant by subtracting the sum of the conservative traits (authority, loyalty, and purity) from the sum of the liberal traits (harm and fairness).

5.3.3. Stigma Attributions Questionnaire

Levels of attributed stigma toward individuals with substance use disorder were determined by asking the informant to rate their agreement with a series of statements using a 9-point Likert scale. These questions were modified from Corrigan et al.'s Attribution questionnaire (2002) to inquire about "persons with substance abuse disorder," as opposed to "persons with mental illness." As discussed in the last chapter, there were two types of stigma that were sampled in this study: personal responsibility and dangerousness. In Corrigan et al.'s (2002) personal responsibility model of stigma, two

pathways of responsibility were explored, which resulted in the testing of 4 different constructs. On the scale, there were two questions targeting beliefs about personal responsibility, three questions targeting pity, three questions targeting anger, and three questions targeting helping behavior. For the dangerousness model of stigma attribution, the three constructs of dangerousness, fear, and avoidance were targeted by three questions each. For each individual, the individual questions will be combined into an overall total for a comprehensive measure of stigma attribution. The questions were tested to confirm the reliability and internal consistency of the scale. Two questions, both concerning avoidance, were not included in the final calculation, as they negatively impacted the reliability of the scale.

Two different multiple regression models will be constructed on the attributed stigma variable. The first will utilize each of the five moral foundations as covariates with the dependent variable stigma, whereas the second will use the summary measure of progressivism. The purpose of this is to provide the opportunity to comment both on the utility of specific moral foundations and on political progressivism when considering addiction stigma. That is, do one or multiple foundations play a larger role in predicting overall attributed stigma? Additionally, while the individual foundations have a substantial amount of utility, the progressivism measure will allow the author to relate the model concretely to modern political policy.

CHAPTER 6

RESULTS

6.1. Freelisting Results

Thirty-nine participants were interviewed during the freelisting phase of the study. First, participants were asked to freelist answers to the question, "What do you think causes people to become addicted to drugs or alcohol?" Additionally, participants were asked to consider not only what they believe to be salient causes of addiction, but also what they believe other college students consider to be important factors. They were also asked for further clarification on what they *mean* by each of the words or phrases that they included in the list. The free-lists were consolidated and analyzed with ANTHROPAC (Borgatti, 1996), which resulted in a total of 38 domain items sorted by frequency of mention. The mean free-list length was approximately 6 (± 2.68). Twenty-four of these items were mentioned by at least ten percent of the sample, and these items were retained for further analysis in pile-sorting and rating tasks (Table 6.1).

Table 6.1 Freelisting Terms with Percentage of Participants in Parentheses (n = 39)

Addictive Properties of Drugs/Alcohol (15)	Environment (21)	Personal Issues (21)
	Genetics (33)	**Emotional Instability**
Boredom (15)	Having an Addictive Personality (10)	
Childhood Exposure to Family Members Using Drugs/Alcohol (21)	Having Friends that Use Drugs/Alcohol (21)	**Loneliness**
		Low Self-Esteem
	Lack of Family/Friend Support (10)	Poor Home Life (44)
Coping Mechanism (23)	Lack of Will Power (13)	Social Media (26)
Curiosity (15)	Money (23)	Stress (38)
Depression (44)	**Being in a High Social Class**	**To Rebel Against Parents/Authority**
Desire for Acceptance (26)	**Being in a Low Social Class**	
Easy Access to Drugs and Alcohol (23)	Pain (10)	Repetitive Use of Drugs/Alcohol (13)
	Past Traumatic Events (23)	
Enjoyment (38)	Peer Pressure (51)	

Note: Bolded items are items either split or added by author.

Figure 6.1 Word Cloud of Top Free List Items

The freelist data are graphically represented as a word cloud in Figure 6.1. These types of figures allow for the quick interpretation of frequency sensitive data by visually representing items with higher frequencies as larger and items with lower frequencies as small. While location has no significance, color corresponds to the themes that were derived in later stages of research.

Several items were consolidated or split based on interview data. For instance,

"money" was split into "being in a high social class" and "being in a low social class," as it was clear that individuals were referring to both an excess and a lack of money in their explanations of causes. Further, "personal issues" seemed to refer to a wide range of mental health problems but was narrowed down to a combination of having "low self-esteem," "loneliness," and "emotional instability." Finally, "to rebel against parents/authority" was included in the list of salient terms, even though the response frequency was low, I felt it acted as an underlying foundation to several of the other causes in the list. In total, 28 terms were included as domain items that compose the cultural model of addiction causality.

6.2. Pile-Sorting Results

After defining the items in the domain of addiction causality, 38 informants participated in the pile-sorting and interview stage of the study. This phase allowed me to ascertain the existence and better understand the cognitive structure of the cultural model. The pile sorts were converted into a proximity matrix, which numerically represents the relative similarities of each of the elements in the cultural model. The next step utilized nonmetric multidimensional scaling (MDS) to create a two-dimensional plot of the similarities and differences among the 28 items. The relationship was determined by how often informants sorted the causes into the same group. Items that were routinely sorted together appear closer on the MDS plot, while items that were rarely or never sorted together are further apart. MDS analysis produces a stress factor, which indicates how well the two-dimensional structure fits the data. As a goodness-of-fit measure, a stress score of 0 indicates a perfect representation of the data, though this rarely happens in practice. Typically, stress values are analyzed in terms of the number of hypothesized dimensions

and the number of items involved in the mapping. For 28 items mapped on 2 dimensions, Sturrock and Rocha (2000) demonstrate that a stress of 0.319 or less would have a less than 1% chance of occurring randomly. Therefore, a stress of 0.169, as produced by MDS analysis on the addiction causality data, indicates the existence of an underlying structure to the domain. Figure 6.2, below, is the MDS plot generated from the pile-sorting results. Again, the degree of similarity between items is displayed in terms of distance. Items that appear closer together on the MDS plot are more related than items that are further away. Hierarchical cluster analysis was then used to identify the distinct clusters by demarcating potential boundaries between groups of items. As discussed in the methods chapter, groups were decided by beginning at the bottom level and looking for the second large jump in level values. At the 0.2889 level, a total of five distinct item groupings were identified and named according to both informant explanations of groupings and researcher interpretations: Biomedical, Self-Medication, Hedonistic, Social, and Familial.

The first group, "Biomedical," includes *genetics, repetitive use of drugs/alcohol, addictive properties of drugs/alcohol,* and *having an addictive personality.* Primarily, informants related these causes to biological matters. For instance, three individuals described this grouping as "the biological aspects," "biological reasons," and having "a little bit to do with biology." As this study concerns the etiology of a mental illness in the United States, "biological" was expanded to "Biomedical," in order to emphasize the application of biology and chemistry to better understand health and illness.

The largest group included items that referred explicitly to mental and physical stress of the body (*stress, loneliness, depression, low self-esteem, emotional instability,* and *pain),* as well as, to potential precursors (*past-traumatic events)* and how the individual

copes with these states (*coping mechanism).* A number of individuals actually referred to this group as their "coping mechanism" group, as they felt that each of the other causes would lead the individual to seek relief through the use of drugs/alcohol or "a way to escape." Another informant said, "These were all psychological factors or problems that would cause somebody to turn to drugs or alcohol for some type of help." To emphasize the role of the user in seeking drugs and alcohol as a way to reduce or manage negative emotional and physical states, this particular group was named in reference to Khantzian's (1997) self-medication hypothesis of addiction.

Enjoyment, curiosity, and *boredom* comprised the smallest cluster of terms. Often, informants referred to these causes in a cavalier way, in that individuals who were influenced by these causes used drugs "just because" or because they asked themselves the question, "why not?." One respondent said, "I would say this is like you tried it for the first time . . . Like you tried cigarettes or beer and you liked it, so you kept doing it. You've gotten to the point where you actually enjoy it. And, then, it just becomes habit, I guess." Another individual explained, "This would be almost experimenting with drugs or alcohol. Because it's almost like they're either trying it for the first time or they have nothing else to do or they've tried it before and they like it." Due to the lack of substantive reasoning involved with these particular causes and the historical association between substance use and pleasure, the theme name "Hedonistic" was chosen to represent this group.

The fourth group included terms principally associated with an individual's social life: *easy access, social media, desire for acceptance, peer pressure,* and *having friends that use drugs/alcohol.* These causes were often seen to be "outside of yourself" or "outside influences" that "might be able to influence you using alcohol or drugs." Another

respondent said, "It's who you surround yourself with. If you surround yourself with good people then you'll have peer pressure still, but it will at least be positive peer pressure instead of negative." As the majority of these "outside influences" seemed to refer specifically to friends and acquaintances, this group is referred to as the "Social" cluster.

The second largest group included an array of terms that revolved around family life and environment. It included terms such as "*being in a high social class," "being in a low social class," "poor home life," "childhood exposure to family members using drugs/alcohol," "environment,"* and *"lack of family/friend support."* In general, the group highlighted "the effects of poor home life" and dealt "with family life and what goes on in the home." One informant explained that she named the group family, because the included causes were a "reflection of your family" and she believed that "everything starts from when you're a child." Thus, this group took on the name "Familial" to refer to the influence of the home life on the ultimate development of addiction and to distinguish between outside factors that emerge from the individual's social and familial networks.

Finally, a single cause, *will power*, was excluded from all of the groups. The hierarchical cluster analysis showed that *will power* was not consistently sorted with any other cause. Potentially, this comes down to a disagreement in the understanding of to what exactly will power refers. Some informants viewed will power as something that an individual was born with and, thus, applying one's will power has little to do with choice and all to do with the actual biological composition of the person. For instance, one informant said, "your will power comes from in yourself, so if you don't have it, then that's an easy way to get addicted, because you don't have a stopping point." In contrast, others viewed will power as something that everyone possessed, but individuals had to choose to

exert it: “Lack of will power is your own decision and it’s not really being affected by anyone else.” Thus, in further analysis, *will power* will not be considered in terms of other causes, but only on its own.

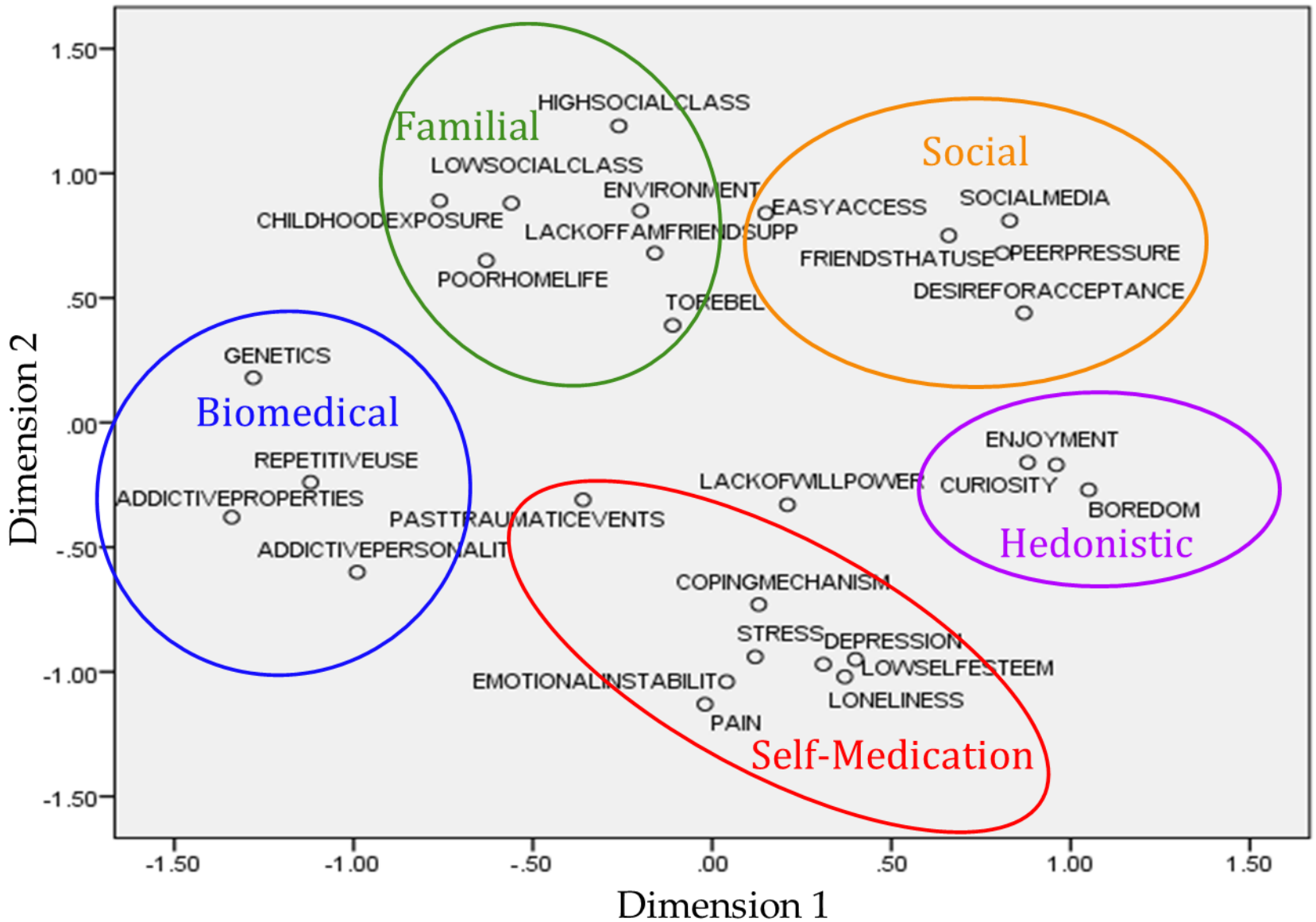

Figure 6.2 Cognitive Map for the Model of Addiction Causality

6.3. Phase III Descriptive Statistics

In the third phase, students were asked to complete a single questionnaire, which encompassed three rating tasks, a measure of stigma attribution, and a measure of progressivism (APPENDIX C). Two professors considered participation in the study as one of the avenues to receiving extra credit in their Anthropology 102 and 101 classes, respectively. One hundred and thirty-four students (63.25%) were from ANT 102 and 78 (36.8%) were from ANT 101. The sample was heavily weighted toward women (67.9%), but this is somewhat consistent with both the gender ratio of UA students (55% female) and anthropology in general. Their ages ranged from 18-24 (M= 18.94) and the sample primarily consisted of freshmen (44.8%) and sophomores (36.3%). Approximately half (46.7%) of the sample named Alabama as the state they had lived in for the longest amount of time and the years of residency in Alabama ranged from 0 – 24 years (M= 8.20). A majority of the sample was white (78.3%), with 23 black participants (10.8%), 8 Hispanic participants (3.8%), 6 Asian participants (2.8%) and 7 participants who listed a different ethnicity (3.3%). Further, 159 (75.0%) individuals considered themselves to be affiliated with Christianity, 44 (20.8%) were either not affiliated with a particular religion or considered themselves to be Agnostic/Atheist, and 9 (4.2%) identified as with a religion other than Christianity. There were a few cases of missing data spread throughout each of the demographic data sections. As the information was collected in the form of surveys, questions were sometimes missed either because of intentionality or accident. This is one of the pitfalls of this form of data collection.

Table 6.2. Demographic Data for Phase III Participants (n = 212)

Variable	Category	Frequency	Percent (%)
Course	ANT 102	134	63.2
	ANT 100	78	36.8
Gender	Male	67	31.6
	Female	144	67.9
	Missing	1	0.5
Class	Freshman	95	44.8
	Sophomore	77	36.3
	Junior	28	13.2
	Senior	11	5.2
	Missing	1	0.5
Longest Lived in State	Alabama	99	46.7
	Other	111	52.4
	Missing	2	0.9
Ethnicity	White	166	78.3
	Black	23	10.8
	Hispanic	8	3.8
	Asian	6	2.8
	Other	7	3.3
	Missing	2	0.9
Religion	Christianity	159	75
	"None"	44	20.8
	Other	7	3.3
	Missing	2	0.9

Table 6.3. Continuous Demographic Data for Phase III Participants (n = 212)

Variable	Mean	SD (Range)
Age	18.94	1.056 (18-24)
Years of Residency	8.2	8.671 (0 - 24)

6.4. Rating Tasks Results

The respondents were asked to rate each of the causes on three different

dimensions: level of influence in the ultimate development of addiction, level of control individuals are able to exert over the cause, and the level of social network involvement with the cause. These rating tasks provided the input for cultural consensus analysis. They were asked to consider not only what they personally believed to be the correct rating, but also what others like them in society would choose. In this way, consensus analysis is able to determine what the culturally correct ratings are for each item. Each individual's ratings were coded into SPSS and a minimum residual factor analysis was used to determine how each individual's ranking matched up with those of the group. Table 6.4 provides the results of the consensus analysis, including eigenvalue ratios, the mean competence score, and the amount of variance explained by the first factor for each dimension. For each of the dimensions, the results meet the criteria for concluding that there is a shared cultural model of addiction causality, which supports my initial hypothesis.

Table 6.4 Consensus Analysis Results

Dimension	**Eigenvalue Ratio**	**Mean Competence**	**# of Negative Competency Scores**	**Factor 1 (%)**
Influence	3.31	0.476	9	27.38
Control	9.04	0.668	3	50.39
Network	8.08	0.668	8	50.81

6.4.1. Consensus Results for Influence

The weakest level of consensus was found on the influence dimension, wherein the first factor only accounted for 27.38% of the variance. Though the eigenvalue ratio (3.31:1) is technically high enough to be considered a shared model, the low level of mean competence (0.476) and relatively high number of negative competency scores (9) clearly indicate that there is some level of contention regarding this dimension. The contested

nature of the domain indicates the need for an analysis of residual agreement. Table 6.5 provides the weighted correct answer key for the Influence Dimension and has been color coded for the ease of differentiating between clustered causes. Further, Figure 6.3 visually affirms the differences in average rating by portraying those items with larger average ratings as bigger words and those with smaller average ratings as smaller words.

Table 6.5 Weighted Correct Answer Key for Influence Dimension

Cause of Addiction		Weighted Average Rating
Depression		2.63
Repetitive Use of Drugs/Alcohol		2.47
Stress		2.42
Poor Home Life		2.34
Addictive Properties of Drugs/Alcohol		2.30
Loneliness		2.30
Past Traumatic Events		2.28
Peer Pressure		2.27
Environment		2.25
Coping Mechanism		2.24
Childhood Exposure to Family Members Using Drugs/Alcohol		2.19
Lack of Family/Friend Support		2.16
Pain		2.14
Having Friends that Use Drugs/Alcohol		2.14
Emotional Instability		2.10
Having an Addictive Personality		2.06
Desire for Acceptance		2.03
Easy Access to Drugs/Alcohol		2.00
Lack of Will Power		1.97
Low Self-Esteem		1.89
Enjoyment		1.81
To Rebel Against Parents/Authority		1.57
Curiosity		1.52
Genetics		1.45
Being in a Low Social Class		1.38
Social Media		1.33
Boredom		1.14
Being in a High Social Class		1.11

Figure 6.3 Word Cloud of Consensus Answer Key on the Influence Dimension

6.4.2. Residual Agreement Analysis for Influence

To test my second hypothesis regarding how differential beliefs about the folk psychiatry of addiction relate to factors such as stigma attribution, it is necessary to unpack the intracultural variation seen in the consensus analysis results of the influence dimension. Essentially, this will allow me to analyze the variation left over by the first factor and to determine if informants agreed and disagreed in a similar fashion. A number of statistical tests were performed in order to gauge the level of subpopulation agreement among those who share other measured characteristics. An independent samples t-test showed that second factor residual scores were significantly related to gender, where men ($M = 0.12$, $SD = 0.26$) had smaller residual agreement coefficients than women ($M = -0.02$, $SD = 0.28$); $t(209) = 3.281$, $p = 0.001$. All other hypothesized variables [ethnicity, years of residency in Alabama, classification of childhood community (rural or urban), religious affiliation and attendance, perceived social class of family, social distance to someone with addiction, and perceived importance of gateway drugs] did not have a significant relationship with residual agreement coefficients.

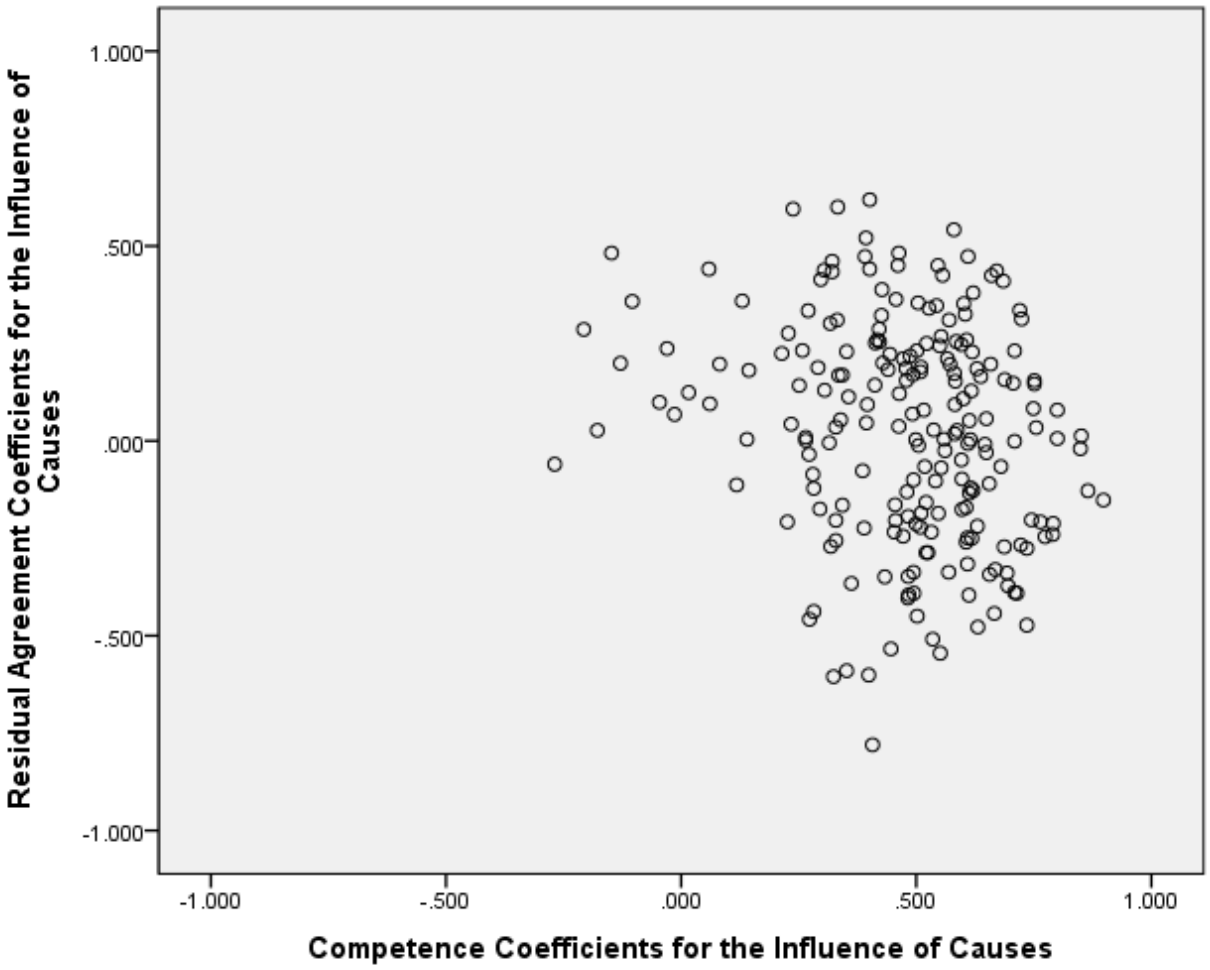

Figure 6.4 Respondent Loadings on the 1st and 2nd Factors for the Influence Dimension

First, I plotted each respondent by their first factor competency scores and their second factor residual scores, in order to visualize how cultural knowledge is distributed throughout the sample (Figure 6.4). Competency scores are directly interpretable, in that the higher the score, the more competent an individual is on a particular model. In contrast, residual agreement coefficients do not have a convenient and straightforward interpretation. Instead, when individuals "share variation beyond the cultural consensus, they will cluster in space when plotted by cultural competence and residual agreement and will have loadings on the second factor of comparable magnitude" (Dressler et al., 2015, p. 25). The majority of individuals in the sample had RA coefficients of above 0 (n = 121), but

individuals were spread fairly evenly across the y-axis. To produce a clearer picture of the patterning of respondents and the differing and contested models embedded within the overall consensus, only individuals with low (below -0.113) and high (above 0.183) were included in analysis.

Following Dressler et al.'s (2015) method for determining residual agreement, the weighted correct answer was subtracted from each individual item rating resulting in individual item deviations for each informant. Informant deviations were then averaged amongst the "low" and "high" RA groups to form deviation averages for each cause. The deviation averages for each cause are presented below in Table 6.6. Positive item deviation averages indicate that individuals in the subgroup more often ranked the item higher than the weighted correct answer key, whereas negative item deviation averages indicate that causes were more often ranked lower than the weighted correct answer key. Items that have a deviation mean of close to zero indicate that there was little difference between the subpopulation rating and the weighted correct answer key. The pattern of residual agreement can be visualized by plotting the deviation of the low RA group versus the high RA group, as shown in Fig. 6.5. According to Figure 6.5, when moving left to right along the x-axis, items increase in their ratings of importance for individuals with "High" RA coefficients, while decreasing for individuals with "Low" RA coefficients.

Table 6.6 Item Deviation Means among “High” and “Low” Residual Agreement Coefficients on the Influence Dimension

Cause of Addiction	"High" Deviation Mean	"Low" Deviation Mean
Peer Pressure	0.2951	-0.3683
Stress	-0.3592	0.2131
Depression	-0.2356	0.2271
Loneliness	-0.314	0.2715
Poor Home Life	-0.215	0.2011
Enjoyment	0.1155	-0.0141
Genetics	-0.5577	0.4908
Social Media	0.263	-0.2428
Past Traumatic Events	-0.2616	0.2672
Easy Access	0.3447	-0.5575
Desire for Acceptance	0.3744	-0.5055
High Social Class	-0.1372	0.0124
Low Social Class	-0.2685	0.1259
Childhood Exposure	0.1911	-0.1749
Environment	0.0887	-0.0422
Coping Mechanism	-0.347	0.1157
Friends that Use	0.4093	-0.4543
Curiosity	0.3383	-0.3495
Low Self-Esteem	-0.2124	0.0544
Emotional Instability	-0.5317	0.2265
Boredom	0.0817	-0.3008
Addictive Properties	-0.0081	-0.0396
Repetitive Use	0.1028	-0.0033
Lack of Will Power	0.047	-0.1814
Lack of Fam/Friend Support	-0.2007	0.1416
Pain	-0.4224	0.3164
Addictive Personality	-0.4673	0.2841
To Rebel	0.3213	-0.3089

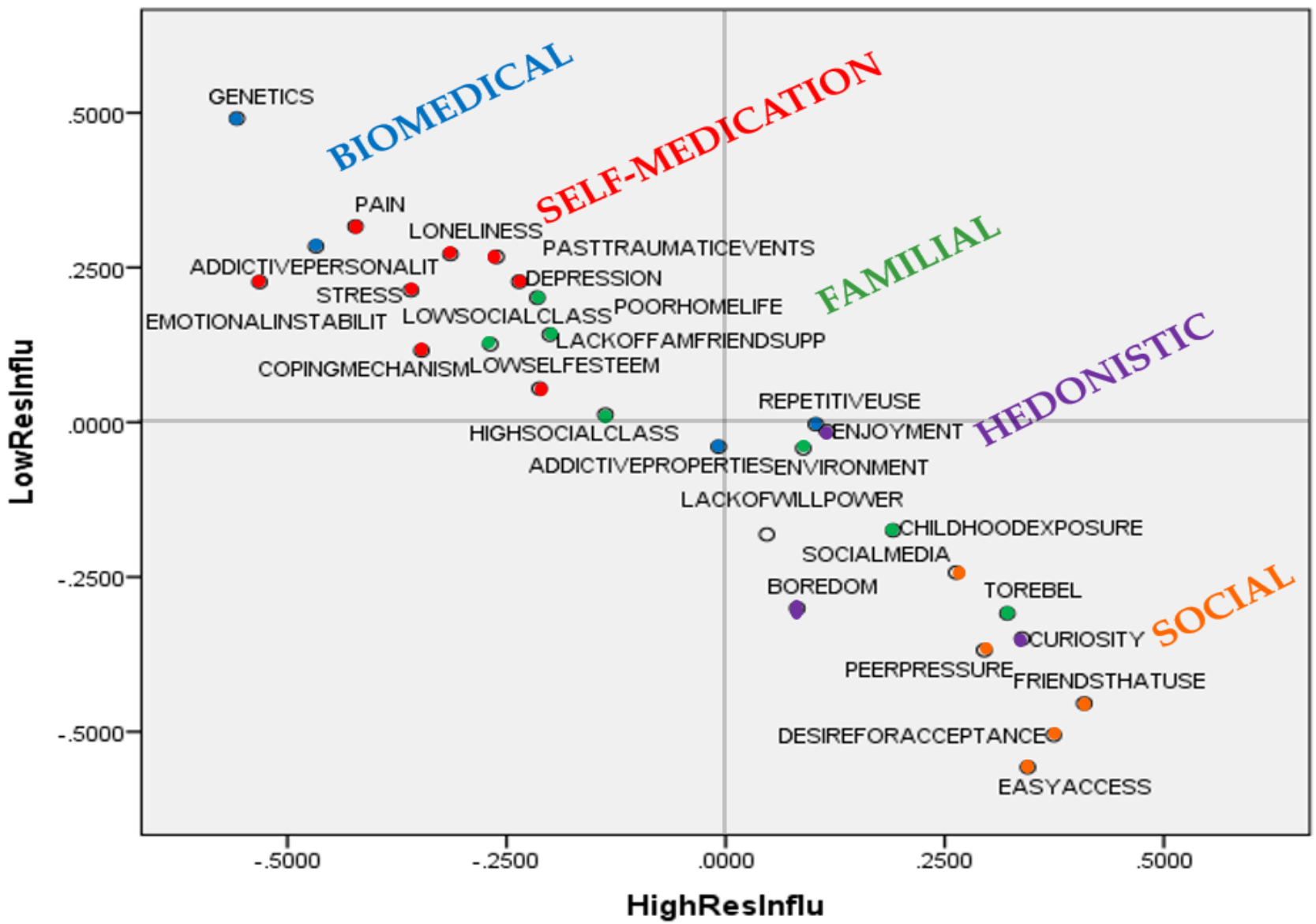

Figure 6.5 Representation of Residual Agreement on the Influence Dimension

There is an extremely strong negative association between these two sets of item deviation scores ($r = -0.942$, $p < 0.001$). This indicates that those items that were rated more highly than the overall consensus by the "low" group were exactly those rated less important by the "high" group. Thus, those items that were nearer to the top left quadrant of the scatterplot were favored by the "low" and unpopular among the "high." And, moving horizontally across the graph, items gradually gain favor by the "high" group and lose favor by the "low" group.

The items favored primarily by the "low" group primarily included items from the Biomedical and Self-Medication themes. Among these items are *genetics, having an addictive personality, pain, emotional instability, loneliness, stress, past traumatic events*, and *depression*. In contrast, the Social and Hedonistic cluster causes were more over-valued by the "high" group and under-valued by the "low" group, which includes *easy access to drugs/alcohol, desire for acceptance, having friends that use drugs/alcohol, peer pressure, curiosity, boredom,* and *social media.* From the Familial cluster, the cause *to rebel against parents/authority* was also more highly rated by the "high" group. Finally, there were some causes that were closely agreed upon by all informants. In Figure 6.5, these causes are those that are found near the 0.0. Primarily, this set of causes is comprised of those from the Familial group, though there are also several causes from other clusters as well. The agreed upon Familial causes are *lack of family/friend support, being in a high social class, being in a low social class, environment,* and *childhood exposure to family members using drugs.*

6.4.3 Consensus Results for Level of Personal Control

The strongest level of consensus was found along the dimension of personal control

over causes. Table 6.4, above, reports an eigenvalue ratio of 9.04:1, which indicates that the first factor accounted for approximately 9 times the variance of the second factor. Further, a mean competence of 0.668 and a low number of negative competency scores (3) indicate the existence of a single shared cultural model. In other words, there is substantial agreement surrounding ideas about which causes of addiction individuals have the most control over. An independent samples t-test showed that first factor competency scores were significantly related to gender, where men (M = 0.605, SD = 0.279) had lower competency coefficients than women (M = 0.700, SD = 0.207); t(209) = -2.772, p = 0.006. Further, informants who were not from Alabama (M = 0.649, SD = .222) had lower competency scores than informants who were from Alabama (M = 0.700, SD = 0.222); t(208) = -1.671, p = 0.096.

Table 6.7 provides the weighted correct answer key for the control dimension. This shows that informants agreed that individuals have the most control over *rebelling against parents/authority, boredom, repetitive use of drugs/alcohol,* and *curiosity.* As demonstrated by the color coding of the chart, the Hedonistic cluster causes tended to be rated higher, whereas the Familial cluster causes tended to be rated lower. Further, Figure 6.6 graphically represents words in regards to their weighted average rating. The words appearing larger in the graphic were rated higher overall, whereas those appearing smaller were rated lower overall.

Table 6.7 Weighted Correct Answer Key for Control Dimension

Cause of Addiction		Weighted Average Rating
To Rebel Against Parents/Authority		2.79
Boredom		2.74
Repetitive Use of Drugs/Alcohol		2.52
Curiosity		2.46
Having Friends that Use Drugs/Alcohol		2.38
Enjoyment		2.38
Desire for Acceptance		2.20
Social Media		2.13
Coping Mechanism		2.09
Lack of Will Power		2.05
Peer Pressure		2.02
Easy Access to Drugs/Alcohol		1.98
Loneliness		1.53
Stress		1.53
Low Self-Esteem		1.52
Emotional Instability		1.25
Having an Addictive Personality		1.24
Environment		1.19
Pain		1.00
Depression		0.92
Being in a High Social Class		0.88
Lack of Family/Friend Support		0.87
Being in a Low Social Class		0.83
Addictive Properties of Drugs/Alcohol		0.78
Past Traumatic Events		0.63
Poor Home Life		0.61
Childhood Exposure to Family Members Using Drugs/Alcohol		0.57
Genetics		0.34

Figure 6.6 Word Cloud of Consensus Answer Key on the Control Dimension

6.4.4 Residual Agreement Analysis for Personal Control

Though there was stronger agreement along this dimension than on the influence dimension, it is still important to unpack the intracultural variation. Analysis of the residual agreement coefficients allows for the exploration of potential subpopulation agreement beyond the first factor. This will be especially important later in this chapter when the multiple regression model of attributed stigma is discussed. Several statistical tests were performed to assess whether differences in agreement can be tied to other measured characteristics; however, none of the tests were statistically significant. These hypothesized variables included gender, ethnicity, years of residency in Alabama, classification of childhood community (rural or urban), religious affiliation and attendance, perceived social class of family, social distance to someone with addiction, and perceived importance of gateway drugs.

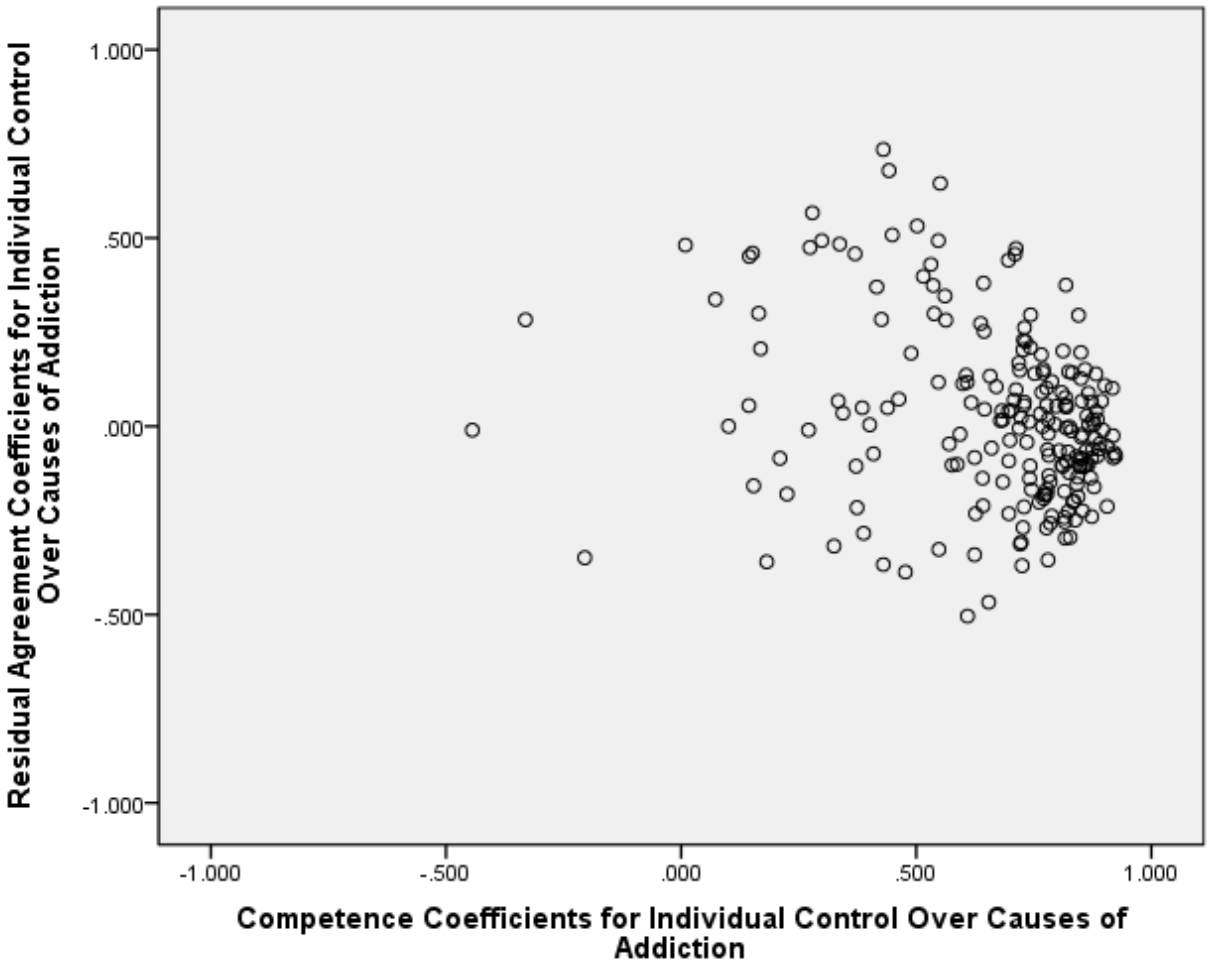

Figure 6.7 Respondent loadings on the 1st and 2nd factors for the Control Dimension

To demonstrate how informants differ in their cultural knowledge of personal control over causes of addiction, Figure 6.7 maps each respondent based on their first factor competency scores and their second factor residual agreement scores. The first factor represents competency with the model: competencies closer to one indicate that those individuals more closely agreed with the weighted cultural answer key, while lower competencies indicate that the individual did not know or was not entirely sure of the model. The second factor represents informants' residual agreement (RA) coefficients. Respondents with similar RA coefficients agreed in the way that they disagreed with the at-large model. The vast majority of individuals are clustered near the right end of the plot,

which shows that though there is intracultural variation, the variation is not extensive enough to suggest the existence of multiple subcultural models.

As with the influence dimension above, a tertiary split of the RA coefficients identified informants with extreme scores will be used for residual agreement analysis. Informants with an RA coefficient of less than -0.084 were included in the "low" group, while informants with an RA coefficient of greater than 0.07 were included in the "high" group. Using Dressler et al.'s (2015) method for determining residual agreement, the weighted correct answer was subtracted from each informant's individual item ranking, which resulted in an individual item deviation for each informant. These item deviations were then averaged for each of the groups and can be found in Table 6.8 below.

Table 6.8 Item Deviation Means among “High” and “Low” Residual Agreement Coefficients on the Control Dimension

Cause of Addiction	"High" Deviation Mean	"Low" Deviation Mean
Peer Pressure	.0828	.0271
Stress	-.2450	.3233
Depression	-.2408	.3402
Loneliness	-.2049	.3141
Poor Home Life	.1221	-.0246
Enjoyment	.1756	-.1093
Genetics	.0968	-.0112
Social Media	.3228	-.3635
Past Traumatic Events	.1914	-.0325
Easy Access	.1935	-.2755
Desire for Acceptance	.1921	-.0023
High Social Class	1.0793	-.6927
Low Social Class	.9575	-.6169
Childhood Exposure	.4061	-.1657
Environment	.2421	-.3802
Coping Mechanism	-.0185	.0254
Friends that Use	.1538	-.1528
Curiosity	.1471	-.0871
Low Self-Esteem	-.0081	.0635
Emotional Instability	-.0635	.1963
Boredom	-.0255	-.1225
Addictive Properties	.0579	-.0230
Repetitive Use	-.2272	.1127
Lack of Will Power	-.5300	-.3302
Lack of Fam/Friend Support	.3751	-.1857
Pain	.1724	-.0395
Addictive Personality	.2804	-.2264
To Rebel	-.0163	.0520

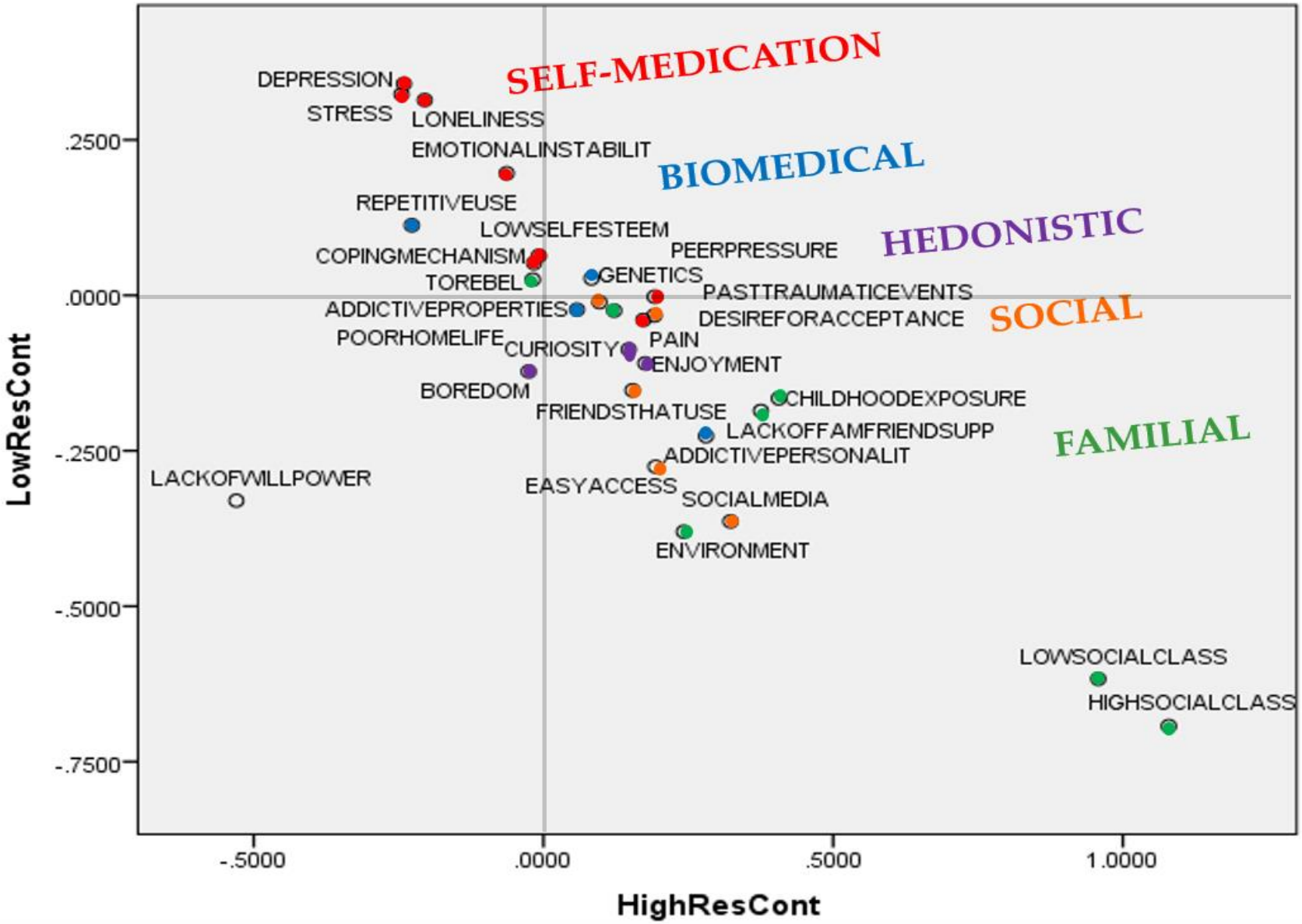

Figure 6.8 Representation of Residual Agreement on the Control Dimension

There is a strong negative association between the "high" and "low" deviation scores ($r = -0.749$, $p < 0.001$). This indicates that those items that were rated as more under personal control than the overall consensus by the "low" group were those rated less under personal control by the "high" group. Thus, those items that were nearer to the top left quadrant of the scatterplot were believed to be more controllable than average by the "high" group and less controllable than average by the "low" group. Further, as you move horizontally across the graph, causes become more controllable according to the "high" group and less controllable according to the "low" group.

Primarily, the items listed as more controllable by the "low" group and less controllable by the "high" group belonged to the Self-Medication theme. These items were *depression, stress, loneliness,* and *emotional instability.* Additionally, *repetitive use of drugs/alcohol* was included in this quadrant, though it belonged to the Biomedical theme. In contrast, items rated more controllable by the "high" group and less controllable by the "low" group include *being in a high social class, being in a low social class, social media, environment, easy access to drugs/alcohol, having an addictive personality, lack of family/friend support,* and *childhood exposure to family members using drugs/alcohol. Being in a high social class* (low: -0.6927, high: 1.0793) and *being in a low social class* (low: -0.6169, high: 0.9575) showed the greatest amount of disagreement. Additionally, a number of causes were agreed upon by both the "high" and "low" groups. These causes include *low self-esteem, to rebel against parents/authority, coping mechanism, addictive properties of drugs/alcohol, poor home life, boredom, curiosity, having friends that use, enjoyment, pain, past traumatic events, desire for acceptance, genetics,* and *peer pressure.*

6.4.5 Consensus Results for Level of Social Network Influence

A similarly strong level of consensus was found along the dimension of social network involvement. With an eigenvalue ratio of 8.08:1 and an average competency of 0.668, the level of network involvement embedded in each cause was shown to be a shared mechanism for organizing thoughts about the etiology of addiction. Table 6.9 provides the weighed correct answer key for the network dimension. Informants agreed that the social and familial network of addicts had the greatest amount of influence on the causes *childhood exposure to family members using drugs/alcohol, poor home life,* and *lack of family/friend support.* Unsurprisingly, each of the top three causes were included in the Familial cluster of causes. In contrast, Hedonistic causes were thought of as being more personal and less under network influence. Figure 6.9 demonstrates the emphasis on green Familial and orange Social causes in this dimension, while deemphasizing blue Biomedical and purple Hedonistic causes.

Table 6.9 Weighted Correct Answer Key for Network Dimension

Cause of Addiction	Weighted Average Rating
Childhood Exposure to Family Members Using Drugs/Alcohol	2.49
Poor Home Life	2.31
Lack of Family/Friend Support	2.30
Peer Pressure	2.10
Genetics	2.09
Being in a Low Social Class	2.09
Being in a High Social Class	2.06
Having Friends that Use Drugs/Alcohol	1.93
Environment	1.91
Easy Access to Drugs/Alcohol	1.66
Social Media	1.33
Past Traumatic Events	1.15
Stress	1.07
To Rebel Against Parents/Authority	0.95
Loneliness	0.92
Desire for Acceptance	0.85
Addictive Properties of Drugs/Alcohol	0.80
Depression	0.77
Coping Mechanism	0.65
Low Self-Esteem	0.63
Pain	0.62
Emotional Instability	0.59
Enjoyment	0.57
Repetitive Use of Drugs/Alcohol	0.53
Having an Addictive Personality	0.49
Lack of Will Power	0.47
Boredom	0.41
Curiosity	0.35

Figure 6.9 Word Cloud of Consensus Answer Key on the Network Dimension

6.4.6 Residual Agreement Analysis for Network Influence

Though agreement along this dimension was particularly strong, it is still necessary to test for potential explanations for the variance in knowledge about the role of social and familial networks. Several statistical tests were performed to assess whether subpopulation agreement can be tied to other measured characteristics. A weak negative correlation was found between religious service attendance and RA coefficients on the network dimension ($r = -0.133$, $p = 0.053$). This indicates that as religious service attendance in the previous month increased, RA coefficients decreased. All other hypothesized variables [gender, ethnicity, years of residency in Alabama, classification of childhood community (rural or urban), religious affiliation, perceived social class of family, social distance to someone with addiction, and perceived importance of gateway drugs] did not have a significant relationship with residual agreement coefficients.

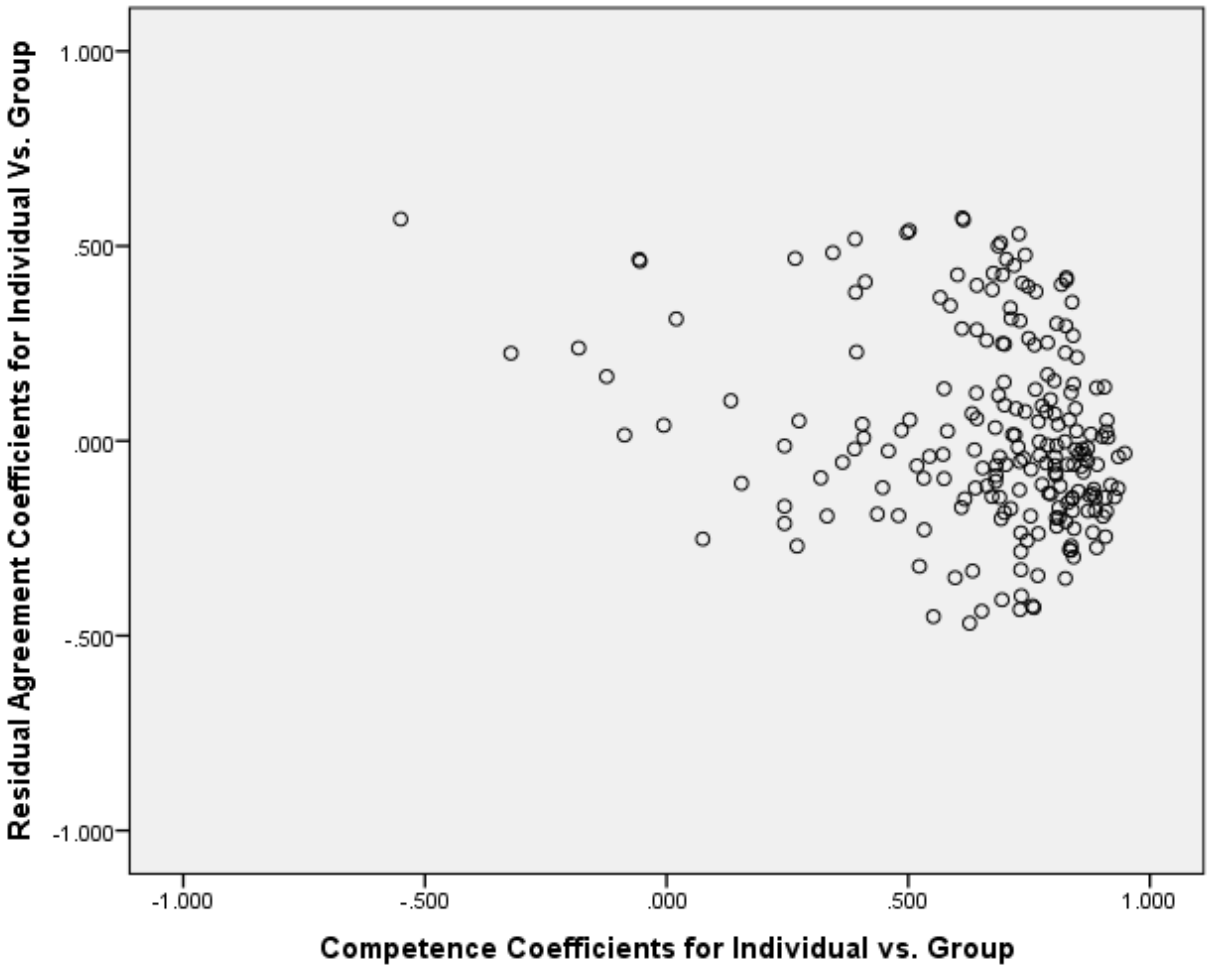

Figure 6.10 Respondent Loadings on the 1st and 2nd Factors for the Network Dimension

To better visualize intracultural variation, the first and second factor scores of each individual are plotted in Figure 6.10. From the scatter, it is possible to tell see that informants were more spread out in their knowledge of this dimension than on the "control" dimension. RA coefficients are evenly spread throughout the sample population, but competency coefficients remain fairly high, which indicates that the majority of participants know the model well. The dispersion of the RA coefficients could suggest that there are other potential dimensions that were not tested for in this study that influence knowledge of the model.

To better view the patterning of respondents and the differing and contested

models embedded within the overall consensus, a tertiary split of the RA coefficients identified participants with extreme scores. Only individuals with “low” (below -0.113) and “high” (above 0.075) RA coefficients were included in the residual agreement analysis below. As above, Dressler et al.’s (2015) method for determining residual agreement was followed. The weighted correct answer key was subtracted from each individual’s individual item rating resulting in individual item deviations for each informant. These item deviations were then averaged for both the “high” and “low” groups to form deviation means for each causes. The deviation means for each causes are presented in Table 6.10 below.

Table 6.10 Item Deviation Means among “High” and “Low” Residual Agreement Coefficients on the Network Dimension

Cause of Addiction	"High" Deviation Mean	"Low" Deviation Mean
Peer Pressure	.0768	.0105
Stress	-.0260	.0180
Depression	-.2101	.1486
Loneliness	-.0706	-.0105
Poor Home Life	-.0296	.0926
Enjoyment	.3226	-.2092
Genetics	-1.2845	.7385
Social Media	.6744	-.5185
Past Traumatic Events	-.2251	.3656
Easy Access	.1520	-.0748
Desire for Acceptance	.3734	-.2131
High Social Class	-.1608	.2221
Low Social Class	-.2839	.2819
Childhood Exposure	.0255	.0830
Environment	-.0026	-.0697
Coping Mechanism	.1175	-.0821
Friends that Use	.4522	-.4583
Curiosity	.1821	-.1314
Low Self-Esteem	-.0754	.0261
Emotional Instability	-.1216	.2062
Boredom	.0746	-.0901
Addictive Properties	-.1214	.2409
Repetitive Use	.1173	-.1571
Lack of Will Power	-.0801	-.0119
Lack of Fam/Friend Support	.1137	-.0887
Pain	-.1088	.1344
Addictive Personality	.0482	.1278
To Rebel	.2404	-.2469

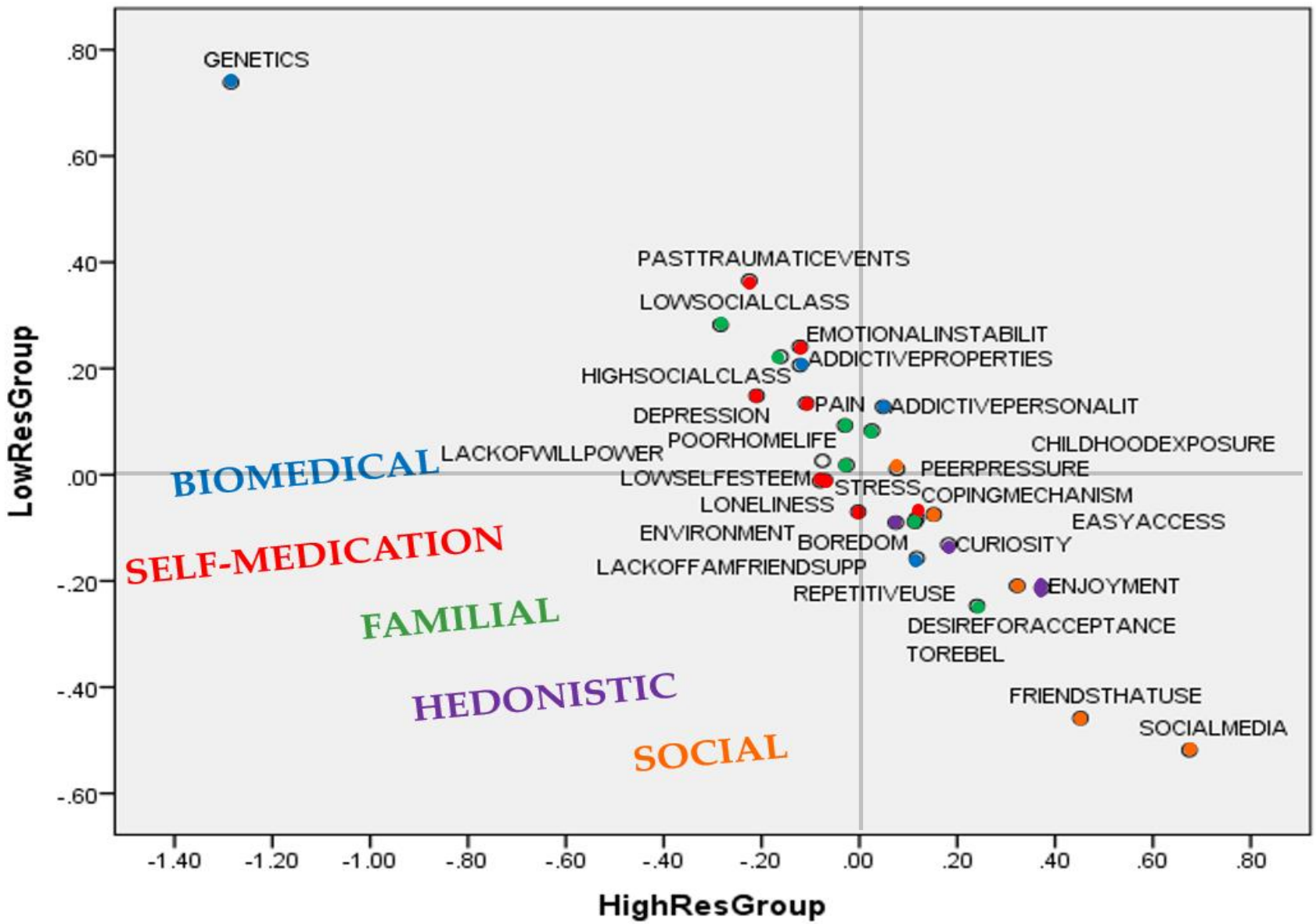

Figure 6.11 Representation of Residual Agreement on the Network Dimension

There is a strong negative correlation between these two sets of item deviation scores ($r = -0.932$, $p < 0.001$), which indicates that the exact items that were rated more highly by those with high residual agreement were simultaneously rated lower by those with low residual agreement coefficients. Accordingly, those items in the top left quadrant were considered to be more under the influence of an individual's social and familial network, while those in the bottom right quadrant were considered to be less influenced by the individual's networks by individual's with high RA coefficients. For those with low RA coefficients, the opposite is true.

The items rated as more influenced by Social and familial networks by the "high" group includes *genetics, past traumatic events, being in a low social class, being in a high social class, emotional instability,* and *addictive properties of drugs/alcohol. Genetics* experienced the greatest amount of disagreement, with those with high RA coefficients rating the cause an average of 0.7385 above the cultural answer key and those with low RA coefficients rating the cause 1.2846 below the cultural answer key. In contrast, the items that were considered to be less associated with social and familial networks include *social media, having friends that use, to rebel against parents/authority, desire for acceptance,* and *enjoyment.* Finally, a large proportion of the causes were agreed upon by both the "high" and "low" groups. In Figure 6.11, these causes are found near the origin [where the X and Y axis cross at (0, 0)]. The agreed upon causes include *depression, pain, having an addictive personality, lack of will power, poor home life, childhood exposure to family members using drugs/alcohol, low self-esteem, loneliness, environment, boredom, lack of family/friend support, repetitive use, curiosity, easy access to drugs/alcohol, coping mechanism, stress,* and *peer pressure.*

6.5 Property Fitting (PROFIT) Analysis Results

Once the existence of shared cultural models have been confirmed, it is possible to utilize those dimensions to delve into the cognitive structure of the model. As discussed earlier, pile-sorting and multi-dimensional scaling (MDS) can be utilized to produce a two dimensional representation of how each cause in the model is related to another. Those that are sorted together the most often are represented as closer together on the map, whereas those that are rarely or never sorted together appear further apart. Property Fitting (PROFIT) analysis further details the structure of the cognitive mapping of a cultural model. While cluster analysis looked to identify groups within causes, PROFIT tests the validity of hypothesized dimensions. In other words, PROFIT analysis is used to determine where there is an underlying criterion that influences the location of items on the MDS plot. Figure 6.12 is the MDS plot produced earlier with the PROFIT dimension lines overlaying the causes. Conventionally, Borgatti (1996) suggests that an R-squared of at least 0.8 is necessary to conclude the existence of a shared hypothesized distance. However, R-squared values of less than 0.8 do not completely lose their interpretive value.

The influence dimension had the lowest R-square (0.186, $p = 0.076$), which suggests that this was the least important tool used to organize causes. This result is supported by pile-sorting interviews, wherein informants repeatedly claimed to be sorting causes based on their similarity to each other and not necessarily based on a hierarchy of which causes were more important in the ultimate development of addiction. During each of the interviews, the informant was asked whether they believed their piles would have changed if they were primed with a particular type of addiction (e.g. addiction to alcohol or prescription pain pills). In the vast majority of cases, informants responded that their

categories would not change, as they had sorted based on addiction in a broad sense. However, they noted that particular groups seemed to resonate more readily with particular types of addiction. For instance, one informant said, "Well, I feel like the social and first time categories would be like beer, cigarettes, stuff like that . . . but I feel like this category with depression and stress, I feel like that would be more hardcore things." Alternatively, informants responded that their piles would change to reflect a group of items they believed led to that particular type of addiction versus those items they believed did not influence that particular type of addiction. An informant explained, "I think some piles would get taken away. I think there would be fewer piles, because there are specific triggers for particular drugs." Therefore, while the influence dimension was not particularly helpful in explaining how causes were organized along a two-dimensional plane, it manages to retain its salience based on evidence that suggests that the influence dimension could be especially useful in future studies that consider differences in the cultural model of addiction causality based on addiction type.

In contrast, the dimensions of personal control and network influence had a multiple R^2 of 0.408 ($p = 0.001$) and 0.659 ($p < 0.001$), respectively. Though these dimensions do not meet Borgatti's benchmark, they still explain a significant amount of the variance in informant responses. Thus, the role of the individual's social and familial networks was the most important factor when individuals were sorting the causes, while personal control ranked second. According to the line produced by profit analysis, Biomedical and Familial causes were the least controllable by individuals, whereas Hedonistic and Social causes were the most controllable. For the network involvement dimension, Social and Familial causes were more highly rated, while Self-Medication causes

were lower. This essentially reiterates the earlier discussion of the cultural answer key for each of these dimensions.

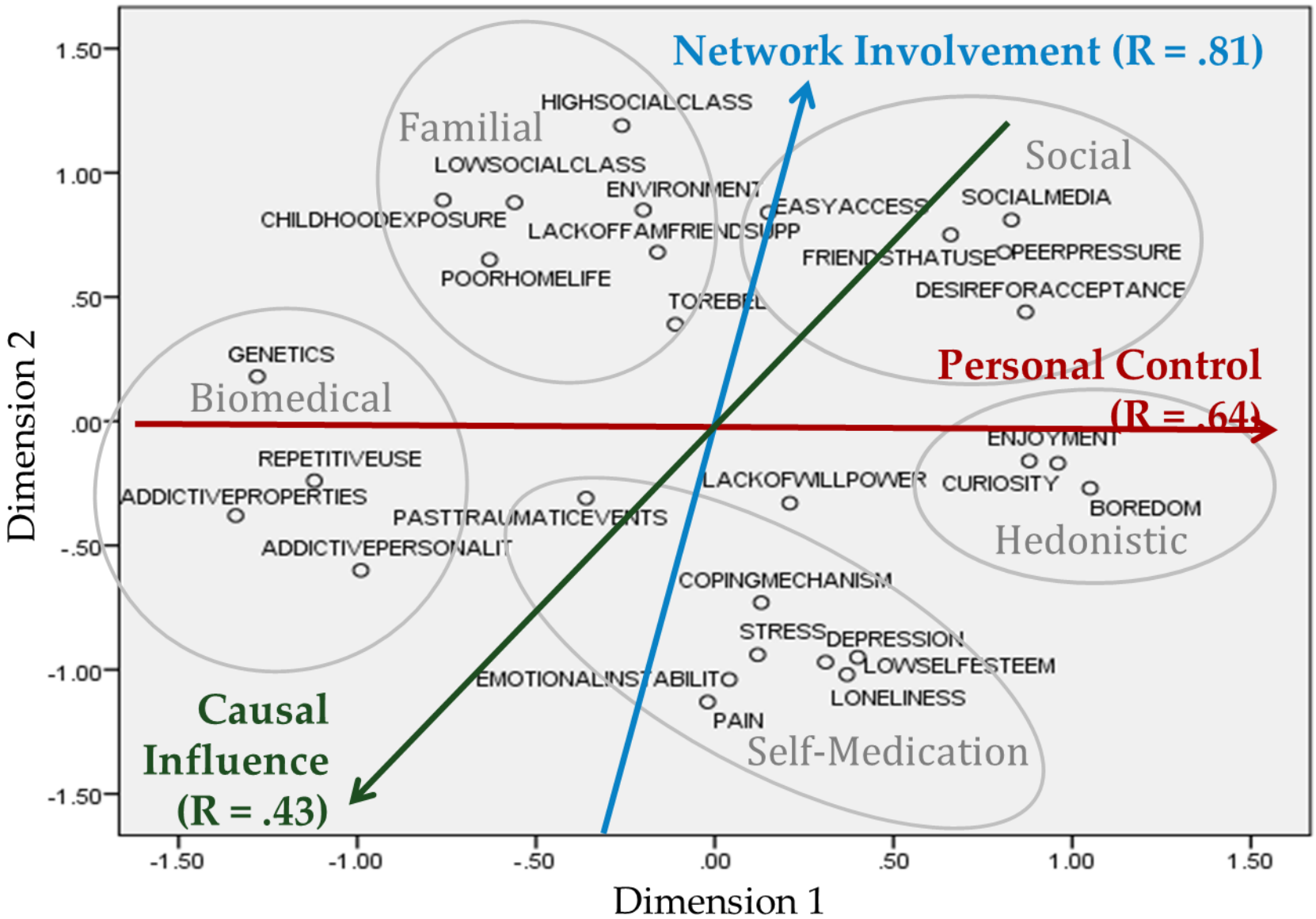

Figure 6.12 PROFIT Analysis Results

6.6 Moral Foundations Questionnaire Results

This study utilized the Moral Foundations Questionnaire – 30 (Graham et al., 2008) to explore the relationship between political beliefs and knowledge of addiction causality. As discussed previously, this questionnaire arises from the moral foundations theory, which posits five key facets of morality that individual's draw upon to make judgments about right versus wrong. For each facet of morality, there were six questions that targeted the degree to which individual's prioritized the facet when making decisions. The six responses were averaged for each individual to form a composite salience score for each facet (M_{harm} = 3.56, SD = 0.64; M_{fair} = 3.40, SD = 0.66; $M_{loyalty}$ = 2.89, SD = 0.78; $M_{authority}$ = 3.03, SD = .79; M_{purity} = 2.58, SD = .96). Potential scores ranged from 0 to 5 and the scores were normally distributed for each of the five facets. As differential endorsement in these facets have been linked with political leanings (conservative vs. liberal) a trait progressivism score ($M_{progressivism}$ = 0.65, SD = .88) was also calculated for each individual by subtracting the sum of the conservative traits (authority, loyalty, and purity) from the sum of the liberal traits (harm and fairness).

6.7 Stigma Results

Each informant completed a modified version of Corrigan et al.'s (2002) attributed stigma questionnaire. The scores for each of the 18 questions were summed to form an attributed stigma score for each informant. These scores ranged from 40 to 134 (out of a possible 9-162) and had a mean and standard deviation of 83.31 and 19.875, respectively. Descriptive statistics for the individual items included in the scale and the total attributed stigma scores are presented in table 6.11.

Table 6.11. Descriptive Statistics for the Individual Items Included in the Total Attributed Stigma Measure and the Total Attributed Stigma Measure (n = 208)

Item	Mean	SD	Item-Total Correlation
How much concern do you feel for persons with substance use disorders?*	6.39	1.96	.338
How sorry do you feel for persons with substance use disorders?*	5.65	2.06	.301
How frightened of a person with a substance use disorder would you feel?	4.14	2.00	.560
How responsible do you think a person with a substance use disorder is for their present condition?	6.23	1.94	.269
How much sympathy would you feel for a person with substance use disorder?*	5.82	2.09	.488
How certain do you feel that you could help a person with a substance use disorder?*	5.04	2.13	.114
How likely is it that you would help a person with a substance use disorder?*	6.63	1.77	.224
How scared of a person with a substance use disorder would you feel?	4.25	2.10	.647
I would feel threatened by a person with a substance use disorder.	4.66	2.12	.628
How dangerous do you feel a person with a substance use disorder is?	5.49	2.00	.585
I would feel aggravated by persons with substance use disorders.	4.80	1.93	.629
I would feel unsafe around persons with substance use disorders.	5.58	1.98	.674
Persons with substance use disorders terrify me.	3.50	2.06	.631
How angry do persons with substance use disorders make you feel?	4.25	2.20	.610
I think persons with substance use disorders pose risk to other people unless they are treated.	5.66	2.21	.520
I feel pity for persons with substance use disorders.*	5.72	2.26	.127
How controllable do you think substance use disorders are?	5.20	1.86	.345
How irritated would you feel by a person with a substance use disorder?	4.77	1.98	.696
Scale			**Cronbach's Alpha**
Total Attributed Stigma	83.31	19.875	0.858

*Note: Items with a * indicates that the question was reversed for analysis.*

Multiple regression analysis was used to examine the relationship between stigma and several potential predictors. As this was an exploratory study of the factors that affect stigma, a forward stepwise regression analysis was performed including all of the demographics variables discussed earlier in this analysis, each of the measures from the MFQ, and the competency and residual agreement coefficients from each of the three dimensions tested. Four distinct linear regression models of stigma were specified, with the first two including progressivism as a covariate and the last two using fairness and purity, two components of progressivism, as covariates. All five of the moral foundations were originally entered into the model, but only fairness and purity had statistically significant effects on stigma. Similarly, interactions between each of the five foundations and the RA coefficients on the influence dimension were tested, but only the interaction with purity was statistically significant. When using progressivism, the final model (model 2) had an R of 0.534 and explained 28.5% of the variance. However, when progressivism is split into its constituent parts, only fairness and purity held statistically significant regression coefficients. Models 3 and 4 include purity and fairness, instead of progressivism, and results in an R of 0.546 and explains 29.9% of the variance.

In model 1, presented in Table 6.12, only the covariates of gender and progressivism have been entered. The coefficients in parentheses represent the standardized regression coefficients for those factors if *only* that factor were entered into the model next. Model 2 contains the progressivism final model for attributed stigma, as competency coefficients for the control dimension, residual agreement coefficients for the control dimension, and residual agreement coefficients for the influence dimension are entered into the equation. Progressivism, competency coefficients for control dimension, and residual agreement

coefficients for the control dimensions each had negative regression coefficients, which indicates than an increase in any of these factors leads to a decrease in the overall attributed stigma, when controlling for other variables. In contrast, the positive regression coefficient for the RA coefficients for influence indicates that higher RA coefficients are associated with higher levels of stigma. The lowest tolerance value for any of the tested predictors was 0.865, which indicates that high levels of collinearity likely did not affect the results. Finally, influential case analysis was conducted and it was concluded that these cases had a small, but negligible effect on the regression model and, thus, there is not a significant reason to exclude them from the model.

Table 6.12. Regression of Total Stigma on Gender, Progressivism, Competency Coefficients for the Control Dimension, Residual Agreement Coefficients for the Control Dimension, and Residual Agreement Coefficients for the Influence Dimension (Standardized Regression Coefficients)

	Model 1	Model 2
Gender	0.181**	0.220**
Progressivism	-0.427**	-0.312**
Competency Coefficients for Control Dimension	(-0.121)	-0.150*
Residual Agreement Coefficients for Control Dimension	(-0.110)	-0.125
Residual Agreement Coefficients for Influence Dimension	(0.297)	0.268**
R	0.433**	0.537**
R^2	0.187	0.288

Note. *$p < 0.05$, **$p < 0.01$

In Table 6.13, below, model 3 present very similar results to models 1 and 2. According to Graham and colleagues (2009), high fairness and low purity scores are associated with political liberals, whereas low fairness and high purity scores are associated with political conservatives in the United States. Thus, in accordance with the progressivism measure tested above, fairness, which was a part of the denominator, had a

negative regression coefficient, while purity, which was a part of the numerator, had a positive regression coefficient. This means that either a decrease in fairness or an increase in purity resulted in an increased stigma score. The regression coefficients for competency coefficients for the control dimension, residual agreement coefficients for the control dimension, and the residual agreement coefficients for the influence dimension remained fairly consistent through the switch between the progressivism measure and the fairness/purity measures.

Model 4, then, includes an interaction effect between residual agreement coefficients for the influence dimension and purity scores. The interaction, shown in Figure 6.13, resulted in a positive regression coefficient (0.143), which indicates that the effects of each on total attributed stigma are dependent on the values of the other. Having a high purity score means that residual agreement coefficients on the influence dimension have a larger effect on attributed stigma, while lower purity practically negates the influence of residual agreement coefficients. In effect, purity and the RA coefficients for influence exacerbate the effects of the other. The lowest tolerance value for any of the tested predictors was 0.863, which indicates that high levels of collinearity likely did not affect the results. Finally, influential case analysis was conducted and it was concluded that these cases had a small, but negligible effect on the regression model and, thus, there is not a significant reason to exclude them from the model.

Table 6.13. Regression of Total Stigma on Gender, Fairness, Purity, Competency Coefficients for the Control Dimension, Residual Agreement Coefficients for the Control Dimension, Residual Agreement Coefficients for the Influence Dimension, and the Interaction between Residual Agreement Coefficients for the Influence Dimension and Purity (Standardized Regression Coefficients)

	Model 3	Model 4
Gender	0.186**	0.178**
Fairness	-0.206**	-0.209**
Purity	0.259**	0.280**
Competency Coefficients for Control Dimension	-0.167**	-0.157*
Residual Agreement Coefficients for Control Dimension	-0.136*	-0.134*
Residual Agreement Coefficients for Influence Dimension	0.261**	0.302**
RA Coefficients Influence X Purity	(0.143)	0.143*
R	0.549**	0.565**
R^2	0.301	0.319

Note. $*p < 0.05$, $**p < 0.01$

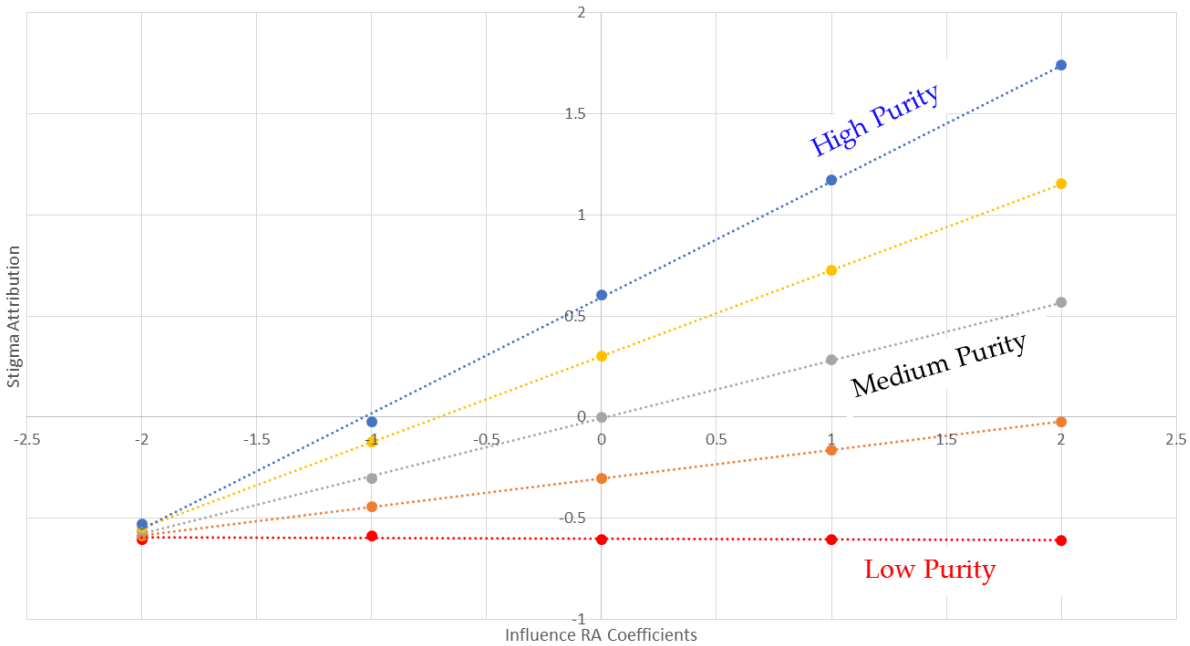

Figure 6.13 Interaction between Purity and Influence RA Coefficients on Stigma Attribution

6.8 Conclusion

In conclusion, there is a shared cultural model of addiction causality that is

composed of 28 items. These etiological causes of addiction can be grouped into 5 types: Biomedical, Self-Medication, Hedonistic, Social, and Familial. Using cultural consensus analysis, the cultural model was confirmed along three dimensions (influence, control, and network), though only two of these dimensions (control and network) were useful in describing the cognitive structure of the cultural model. Residual agreement analysis was conducted on each of these dimensions and it was shown that there is shared deviation from the aggregate model. Further, differences in stigma attribution are associated with differences in etiological beliefs, as demonstrated by the inclusion of the influence and control dimensions in the stigma regression models. Further implications of these results will be discussed in the next chapter.

CHAPTER 7

DISCUSSION AND CONCLUSIONS

7.1. Introduction

While the previous chapter outlined the construction and confirmation of the cultural model of addiction causality through freelisting, pile-sorting, and CCA methods, this chapter will explore the broader implications of the model in terms of understanding how people both cognize the etiology of addiction and stigmatize people with addiction. In a sense, the cultural model of addiction causality demonstrates the inherent biocultural nature of addiction, in that it includes causal explanations that arise from biological, social, and political realms. I argue that the moderate consensus along the influence dimension hints at the existence of differing or contested models embedded or hidden within the overall shared cultural model. Primarily, these hidden models differ in the emphasis placed on various aspects of the overall shared model and stem directly from substantial differences in the understanding of addiction. Finally, the implications for the reduction of stigma associated with addiction will be discussed.

7.2. The Cultural Model of Addiction Causality

This study has shown that there is a shared model of addiction causality among students at UA, though the model is not shared equally throughout the population. Through cultural domain analysis, CCA, and RA, it is possible to determine what the elements of a

particular domain are, how those elements are cognitively organized, which are the most salient, and how that knowledge is distributed throughout the group. In the case of addiction, cultural models surrounding causality and stigma are important factors shaping how we respond and how others expect us to respond to people who exhibit addictive behaviors. The variability of elements in the domain highlights how the ever-evolving landscape of politicizing and medicalizing drugs and drug use affects how people think about the causes of addiction.

The model of addiction causality included 28 causes spanning 5 main thematic groups. These causes were elicited through freelisting and the groups were visualized through nonmetric multidimensional scaling and cluster analysis. The first cluster included Biomedical causes, which referred to causes that originated in the biological realm. These causes eschewed social or cultural factors by relying on aspects that are inherent to the individual (*genetics* and *addictive personality)* or to the alcohol/drugs themselves (*addictive properties of drugs/alcohol* and *repetitive use).* The second set of causes, Self-Medication, referred to physical/psychological ailments and the act of using drugs/alcohol to treat them. In this way, drugs and alcohol are initially used to manage or reduce symptoms of other disorders, but a secondary dependency disorder develops. The Familial causes are those that arose from the personal family life, the experiences of the individual, and the structural issues of the family itself. In contrast, the Social causes originate from the peer group of the individual or the individual's perception of the peer group. Finally, the Hedonistic causes accentuate short-term pleasure-seeking behaviors, while ignoring long-term health and success.

Will power was the only cause that did not routinely cluster with any other causes,

as demonstrated by the hierarchical cluster analysis and multidimensional scaling. As mentioned in the previous chapter, this could be due to a fundamental disagreement in how *will power* should be understood. Some informants grouped *will power* with *genetics* and *having an addictive personality*, as they viewed *will power* as something that was innate to the individual. In this sense, the presence or absence of a person's *will power* was entirely dependent on their genetic make-up and, thus, completely out of their control. Others thought of *will power* as something that was inherent to everyone, but individuals had to choose to employ it. These individuals tended to group *will power* with the Hedonistic causes, *enjoyment, boredom,* and *curiosity.* In this instance, others perceive the individual to be completely at blame for the development of addiction, as they had the ability to control their drug use that led to addiction, but ultimately chose not to. Future studies should delve into how this fundamental difference in understanding is connected to overall understandings of the model of addiction causality. And, further, how this interplay between control and choice affects stigma attribution.

Consensus was tested and confirmed along three dimensions of the model: level of influence of causes on the ultimate development of substance use disorders, level of personal control over particular causes, and level of social and familial network involvement with particular causes. For the latter two of these dimensions, agreement was found to be moderately strong, whereas consensus was only moderate on the influence dimension. On the influence dimension, Biomedical and Self-Medication causes tended to be rated higher, whereas Hedonistic causes tended to be rated lower. Residual agreement analysis allowed me to delve into the variation in these ratings and showed that some individuals prioritized the Biomedical and Self-Medication causes, while others prioritized

the Hedonistic and Social causes as being more influential in the development of addiction. These alternative forms of understanding addiction causality could indicate the potential existence of two alternative models of addiction causality: the moral model and the medical model. The moral model heavily emphasizes the Social and Hedonistic causes and downplays the Biomedical and Self-Medication causes, whereas the medical model is the direct opposite. These differences will be discussed later in this chapter in terms of the broader interpretations of adherence to either of these models and the relation to stigma attribution.

The control dimension will also be discussed below in these terms. Informants primarily rated Hedonistic and Social causes as being more under personal control and Familial and Biomedical causes as being less under personal control. When superimposed onto the influence residual agreement, this indicates that individuals who supported the moral model of addiction tended to believe that addiction was more under individual control. In contrast, those who supported the medical model of addiction tended to view addiction as something that was not under personal control. The control dimension was also helpful in deciphering the cognitive structure of the cultural model of addiction causality. The network dimension will not be discussed in depth in terms of broader implications and stigma attributions, as this dimension was primarily useful in describing the cognitive structure of the model. On the network dimension, Familial and Social causes were rated highest, which means that these causes were the most influenced by the individual's networks, whereas Self-Medication and Biomedical causes were rated lowest.

Interestingly, there were no significant differences in knowledge of the model, when measured social factors were taken into account. These social factors include age, ethnicity,

length of time lived in state, whether the childhood community was rural or urban, and religion. Furthermore, students were asked about their beliefs in the validity of the gateway theory of drug use and their social distance to drug abusers, but neither of these factors shed light on the potential shared characteristics of those with high and low competency or residual agreement coefficients on any dimension. The only social factor that held a statistically significant relationship to the model was gender, wherein women were significantly more competent than men on the control and network dimensions. However, there were no gender differences in knowledge about the overall influence of causes. This could indicate that there are substantial differences in the ways that men and women interpret various causes. Moreover, studies have shown that there are gender differences in the diagnosis rate of substance use disorder. The rates of drug use and abuse tend to be much higher for males than for females (NIDA, 2010).

The lack of significance of social factors could potentially be due to the narrow sample used in this study: all participants were between the ages of 18 and 25 and were students at the University of Alabama. Perhaps the distribution within social factors was not varied enough to capture the latent effects on knowledge of the model. Further, this age-range in particular represents a time in which thoughts and beliefs about social and cultural norms are developing and changing in relation to the experience of new events and people (Bowman, 2013; Tadmor et al., 2012). Life in college acts as a point of change in influences on young peoples' understanding of social and moral patterns and behaviors, from a reliance on social networks closely tied to their family of origin to a broader set of social influences, as well as a growing independence in thought. Therefore, this cross-sectional study is situated directly in a time and place where beliefs and opinions about

topics, especially ones as controversial as drug use and addiction, are in the midst of change. In turn, these study participants reflect the liminal status of addiction in the United States today, wherein it is neither completely a moral defect nor an illness. As such, a similar study conducted among an older age group could elicit an alternative version of understanding the cultural model of addiction causality.

7.2.1. The Universality of the Model

It is also important to note that while the elements of the model are continuously referred to as "causes" of addiction; these are aspects that are present to some degree in the lives of most people in the United States. For instance, as cultural beings in the 21st century, humans will undoubtedly encounter the majority of elements in the Social cluster at some point in their lives. Similarly, most people will experience mental and physical stress that leads to causes in the Self-Medication group or environmental and structural stress originating from the Familial realm. Thus, mere presence of an item or a subset of items in does not necessarily indicate either presence of disorder or an increase of risk of disorder.

In this way, the use of "causality" to refer to this model could be somewhat misleading. This imprecise term undoubtedly stems from the reinterpretation of addiction from a behavior stemming from moral failings to an illness. Unlike other social problems swept up in the medicalization of deviance, neither alcoholism (Valverde, 1998) nor drug dependence (Smart, 1984) adapt easily to a strict medical model. Even with the present movement, the framing of addiction as a failure of biochemistry or genetics continues to co-exist uneasily with behavioral interpretations, such as the failure of will power or the influence of peer pressure. Thus, the variability in the causes free-listed by informants in

this study showcases the attempts of the American public to reconcile the competing ideologies of the medical and the behavioral.

Even with this muddying of semantics, participants in this study had no problem recognizing the items as "causes of addiction." Additionally, not a single informant questioned the association of commonplace social factors with the etiology of addiction. Potentially, this derives from a dissociation between the self and the potential for addiction. Though factors may be present in the life of a person without addiction, it is often taken for granted that individuals with substance use disorder are "different kinds of people" (Higgins, 1998, p. 141), that, in some way, the rules are selectively applied to the self, while simultaneously being wholly applied to others. Brezina (2000) described the definitional perspective of disorders that have historical roots in social deviance, as "labels or definitions that are differentially applied to various individuals and their behaviors – not in terms of the personal attributes of the individuals, nor in terms of the intrinsic qualities of the behaviors individuals display" (p. 72). This speaks to the "anyone but me" phenomenon, wherein it is believed that while these social factors can be thought to influence the development of addiction within an individual, it is more likely to happen to someone else.

7.2.2. Addiction as a Hybrid Medical-Moral-Legal Issue

The variability in the perceived causes of addiction also emphasizes that addiction is what Conrad (1992) referred to as a hybrid medical-moral-legal issue. I have posited that the Biomedical and Self-Medication clusters embody the modern movement away from the criminalization of drug use and drug users toward a medical view of addiction. By this, I am specifically referring to the current bipartisan trend of reinterpreting addiction as a medical disorder that requires specific treatment. At the same time, however, addiction is

still seen as a moral issue by various religious groups and as a legal problem by the United States court system.

Nevertheless, these varying frameworks do not exist in isolation. Instead, they are integrated to formulate a structure that is somewhat oxymoronic in nature. I refer to this integrated system as mutually contradictory, as the individuals in this situation are receiving mixed messages about their current condition. For instance, an individual could be arrested for possession of heroin, but be medically treated for heroin addiction while in prison (Murphy, 2006, p. 4). On one hand, the individual has a problem – an illness – that requires medical intervention for recovery to take place. In this instance, there is an insinuation that fault does not lie at the hands of the individual. At the same time, however, indictment by the legal system reallocates blame to the individual through punishment. Another example of this hybrid system is court-mandated treatment, wherein individuals are excused from jail time on the condition that they receive regular medical treatment for their addiction.

In recent US history, it was commonplace for an individual who committed a crime related to intoxication to be ordered to participate in AA. And though there are several constitutional clauses and court cases of importance that have altered this practice, a portion of active AA members are still introduced to the program through the judicial system. The 2014 AA Membership Survey notes that 12 percent of people first came to AA because of a court order (AAWS, 2014). The majority of the court cases of importance to this issue are argued in relation to the Establishment Clause or the Free Exercise Clause, which are pronouncements in the First Amendment to the United States Constitution. Together, these secure citizen's religious freedoms and inhibit government intervention in

religion. These clauses were further clarified by the 1992 Lee v. Weisman case, where in the majority opinion, Justice Anthony Kennedy wrote, “the Constitution guarantees that government may not coerce anyone to support or participate in religion or its exercise, or otherwise act in a way which 'establishes a [state] religion or religious faith, or tends to do so" (Lee v. Weisman, 1992, at 587). This established what is now known as the “coercion test,” which attempts to discern the amount of pressure placed on the individual to participate in religious activity (Ward, 2006).

In 1997, in Griffin v. Coughlin, the New York Court of Appeals held that there were “enough religious components” embedded in AA, that forced attendance of AA was a violation of first amendment rights. This led to the provision that individuals who are sentenced to treatment programs must be offered a secular alternative. Similar cases have been argued and won in many states and circuit courts since then. Many cases consist of individuals losing their right to parole after refusing to participate in prayers or recognizing the influence of a higher power. The refusal to participate was construed as failing to meet the requirements of the program. A comprehensive listing of all court cases has been published online by SMART Recovery (2015). The most recent case was in 2013, where the plaintiff was required to participate in AA and was not offered an alternative, even though one was requested (Hazle v. Crofoot, 2013).

In each of these cases, both the individual and society has to negotiate between the messages of the legal, moral, and medical systems embedded in the overall paradigm of how addiction is handled in the United States. And, at the most foundational level, this arises from the ways in which the etiology and progression of addiction is understood by the American public and lawmakers. Historically speaking, a medical diagnosis of addiction

has been the equivalent to a confession of a crime. This type of relationship between illness and criminalization is preposterous when considering most other illnesses. In the same way that a medical diagnosis of diabetes would not imply criminal activity, an individual would not receive a doctor referral based on "persistent vandalism." This system is made infinitely more complicated by the recent increase in heroin addiction by way of prescription pain pills. While the outcome of addiction is the same, the pathway of inherent criminality is absent. Even so, these individuals still must face the stigma that comes along with receiving addiction treatment and navigate the political and moral pitfalls associated with diagnosis.

This fully integrated medical-moral-legal system is also demonstrated by the confirmed existence of a shared cultural model of addiction causality. The mixing of each of the causal types indicates a reconciliation of the historical criminalization of addiction and the modern medicalization of addiction. While there are differences in the perceived influence of causes in the model, informants typically recognized that all causes had some effect on the development of addiction. Even the lowest scoring cause (*being in a high social class)* had an influence answer key rating of above 1.0, which indicates that people believe that it does not have a completely negligible effect on addiction development. Further, during the pile-sorting phase, I asked informants whether they believed that any of the domain items did not fit or did not belong in the model. Most individuals mentioned minor problems in deciding which group to place individual items, but ultimately believed that each of the causes belonged in the model. In other words, each of the causes in the model were recognized as salient in the development of addiction, but the degree of importance and perceived influence varied amongst individuals.

7.3. Relating the Cultural Model to Stigma Attribution

As mentioned earlier, the residual agreement analysis on the influence dimension hints at the existence of two alternative perspectives within the model of addiction causality. In the first, the moral model, individuals privilege the Social and Hedonistic causes, while, in the second, the medical model, individuals privilege the Biomedical and Self-Medication causes. The following sections delve into the implications of the Moral and the Medical models by discussing potential explanations for the development of the perspectives and the possible consequences of adhering to them. Additionally, Familial causes were somewhat universally agreed upon in terms of their influence in the development of addiction. Therefore, this aspect of the cultural model will be discussed in terms of the historical roles and assumptions of family life when related to addiction and in terms of how these roles and assumptions have changed over time.

7.3.1. Moral Model of Addiction: Social and Hedonistic Causes

During the free-listing phase of the study, "peer pressure" was the most frequently mentioned item. This result can be attributed directly to how students in this study, specifically, and their generation, more broadly, learned about substance use and addiction. Beginning with Nancy Reagan's "just say no" campaign in the 1980s and 1990s, the rhetoric surrounding teen drug use shifted to focus primarily on peer pressure and other social causes. Prior to this shift, drug use had been tied primarily to rebellion (Keeler, 1968; McAree, Steffenhagen, and Zheutlin, 1969; Norton, 1968) or to "an anti-authoritarian spirit" (MacInnes 1966, p. 24). This shift also explains the low-frequency in the free-list stage, low rating on the influence dimension, and high rating on the control dimension of the item "to rebel against parents or authority." Though to some extent this rhetoric is still used, peer

pressure has predominately replaced the sentiment throughout popular media.

Further, the majority of educational programs targeted at students in the 1990s and early 2000s, when participants in this study would have been in the K-12 system, drew directly from the "just say no" prototype. Some of the most famous of these programs include D.A.R.E. (Drug Abuse Resistance Education) or the observance of "Red Ribbon Weeks." According to the latest Annual Report, D.A.R.E. programs are present in all 50 states U.S. territories, U.S. Department of Defense schools worldwide, and in 53 other countries (2014). These types of program often emphasize social causes of addiction and promote abstinence as the ideal way to avoid dependency on drugs. From this standpoint, it is no surprise that *peer pressure*, the other Social causes (*desire for acceptance, easy access, having friends that use drugs/alcohol,* and *social media),* and the Hedonistic causes (*enjoyment, boredom, and curiosity)* were produced as a quasi-kneejerk reaction when students were questioned about what leads individuals to addiction.

Interestingly, despite this arguably automated response, Social and Hedonistic causes, as a whole, did not fare very well on the Influence dimension. Peer pressure had the highest weighted average rating (2.27) of the two cluster groups, but still barely broke into the top ten causes. All of the Hedonistic causes were in the bottom ten causes. This incongruity could be due to a difference in knowledge gained through educational experiences and knowledge gained through experience. The residual agreement analysis of the influence dimension further emphasizes this distinction. The causes that were more heavily endorsed by those with high residual agreement scores are precisely those factors targeted by educational programs for children and teenagers. Further, the Social and Hedonistic causes are also those that received the highest ratings on the Control dimension.

Six of these causes are in the top 10 rated causes and all 8 make the top 12. Thus, when these causes are endorsed, individuals are simultaneously claiming that preventing the developing of addiction is entirely controllable. When faced with any of the Social and Hedonistic causes, the individual *should* be able to "just say no." In this way, avoiding substance use and addiction is simple and those that fail to do so are inherently deviant.

In early chapters of this thesis, I traced a brief history of drug policy in the United States and discussed a "Moral" model of addiction that arose due to the long-term criminalization and marginalization of drug users and individuals with substance use disorder. Here, I argue that the Social and Hedonistic cluster causes that were revealed during the pile-sorting phase of this study form the foundation of this model in today's society. This model frames addiction in terms of human weakness, as something that could and should have been controlled by the individual. From this standpoint, the individual began using drugs either because they wanted to or because they were unable to assert themselves in the face of social pressures. In this sense, the individual has no one to blame but themselves.

A conversation between a father and his son, who is a homeless heroin and crack addict in Bourgois and Schonberg's (2009) *Righteous Dopefiend,* emphasizes the role of choice and control in the understanding of the etiology of addiction. The father and the son have been long estranged, as neither the father nor the father's family approves of Frank's addiction. In this section (p. 140), the father and son have very different conceptions of how the son's addiction developed. While the father argues that the son should have recognized the risk factors and *known* that addiction would develop after long-term drug use, the son contends that it is impossible to *know* that one will become addicted. The

father believes that the son should have pre-emptively avoided drugs instead of catering to his desire to engage in the thrill and excitement of drug use and dealing. The father's beliefs about the etiology of addiction characterizes the beliefs of the moral model of addiction. He considers the Social and Hedonistic causes as those that led his son to addiction and believes that his son routinely made the wrong choices on his path to addiction.

As hypothesized by this study, the results have shown that proponents of this moral model are more likely to stigmatize people with substance use disorder. However, it is important to note that the majority of educational programs that seek to reduce drug-use among children and teenagers still advocate for this model. In a sense, through attempting to teach students not to use drugs, these programs are inadvertently teaching students to stigmatize people with substance use disorder. When viewed as a deviant and self-destructive behavior that goes against cultural norms, drug use and abuse become laden with moral judgments associated with choice and control. This individualistic view of addiction causality is not unlike the American conception of "rugged individualism," advocated by President Herbert Hoover and challenged by Hsu (1983). Hsu (1983) argues that the Western emphasis on individualism often fails to account for cultural differences and human experience. Thus, thinking about substance-use in this way may inevitably lead to increased stigma as it furthers the marginalization of people who use drugs (Ahern, Stuber, and Galea, 2007). In this way, the social processes and institutions that were originally created to reduce and control substance use may actually promote the continued abuse of drugs (Erikson, 1962) and stigmatization of drug-users.

7.3.2. Medical Model of Addiction: Biomedical and Self-Medication Causes

In contrast to the moral model of addiction, I also discussed a medical model of

addiction, which, based on the results of this study, consists primarily of the Biomedical and Self-Medication causes. "Depression" was the second most free-listed term, with 44 percent of informants including the item on their list, and it had the highest rating on the Influence dimension (2.63). This, and the other Self-Medication causes (*stress, loneliness, low self-esteem, emotional instability, pain, past-traumatic events,* and *coping mechanism),* seems to refer to the comorbidity of addiction and other mental and physical illnesses. Studies have shown, however, that the self-medication of depression or anxiety with drugs/alcohol tends to make symptoms more severe, possibly due to a change in brain chemistry (Ashton, 1987; Cosci, Schruers, Abrams and Griez, 2007; Cowley, 1992; Michelini, Cassano, Frare, and Perugi, 1996; Wetterling and Junghanns, 2000). Further, typical treatments suggested for the core issues of anxiety or depression do not work as well, while the individual is under the effects of alcohol (Cohen, 1995).

Although identified as a research priority by NIDA (2010), there remains little research on the rates of comorbidity. One study showed that approximately half of patients entering treatment for anxiety or panic disorder have comorbid dependencies on drugs or alcohol (Cohen, 1995). Herxheimer (1999) suggests that all aspects of self-medication are increasing and expanding within the context of most psychological and physical conditions, which could lead to further diffusion of these causes. NIDA (2010) has identified several potential reasons for why comorbidity is common between drug abuse and other mental disorders. First, there may be overlapping genetic vulnerabilities, wherein there are genetic components that may predispose individuals to addiction and other mental illness or that increase the risk of developing the other once the onset of the first occurs (see Caspi et al., 2005). Similarly, both addiction and several mental illnesses have been shown to involve

similar regions of the brain. Further, there may be overlapping environmental triggers such as stress or trauma that lead to the development of both conditions.

When considering the influence of causes, students, on the whole, rated Biomedical and Self-Medication causes the highest, Familial and Social causes in the middle, and Hedonistic causes the lowest. This indicates that the medical model of addiction has, to some extent, become fully entrenched into the cultural psyche. Though variation was high, there was still some agreement that the medical model was the *culturally correct* way of understanding addiction.

As mentioned earlier, the individual ratings of the causes were still highly variable, which indicated a need for an analysis of residual agreement. While those with high RA coefficients on the Influence dimension can be considered as proponents of the "Moral" model of addiction, individuals with low RA coefficients on the Influence dimension can be considered as proponents of the "Medical" model. While still recognizing that Social and Hedonistic causes have some sway in the development of addiction, they primarily attributed addiction to these Biomedical and Self-Medication causes. Further, the Biomedical and Self-Medication causes had fairly low ratings on the Control and Network dimensions. Except for *coping mechanism*, all of the items had ratings that were closer towards no control than towards complete control. Similarly, the Biomedical and Self-Medication causes were more often understood as individualistic, in that familial and social networks had little influence on their effect.

Thus, this fits the theoretical "Medical" model of addiction, as the model emphasizes those causes that are perceived to be less controllable by the individual and less influenced by others. The medical model advocates for the consideration of individuals as objects at

the mercy of forces beyond themselves rather than as subjects who have choice and control over their actions. In this way, addiction is framed as something that *happens* to someone. Further, when considering the Self-Medication causes, addiction could be understood as an incidental byproduct of the individual attempting to establish control over their situation. Self-medication is understood by researchers as an attempt by the patient to establish responsibility and maintain empowerment in their current situation (Bradley and Bond, 1995; Coulter, 1999; Sculpher, Watt, and Gafni, 1999). From this standpoint, addiction to drugs/alcohol could be understood as *accidental* or as something that the individual entered into with good intentions.

Further, on the control dimension, those who rated Self-Medication items as higher than the cultural answer key were more likely to stigmatize individuals with substance use disorder. This means that these individuals perceived the Self-Medication causes as being more under individual control. Perhaps, these individuals stigmatized more because they questioned the legitimacy of self-medicating in a society where there are other legitimate medical services in the biomedical realm that could be used to treat the same issues. In this case, the individual is being less responsible, as they are eschewing the accepted cultural norm of seeking medical advice for their ailments. In turn, this essentially removes any "valid excuse" or "good intentions" that the individual may have had when they began substance use and returns the blame to the individual.

Rating the medical model higher than the cultural answer key on the influence dimension did correspond with lower levels of attributed stigma, as hypothesized by this study. This could indicate the need for a more substantial integration of Biomedical and Self-Medication causes into educational programs regarding drug use and addiction. These

findings correspond with much of the rhetoric surrounding addiction in society today. Many proponents of the medical model of addiction view the reduction of stigma as one of the primary goals, because the framing of addiction as a disease has the potential to reduce the tendency towards accusing addicts of being the cause of their problems (Polak, 2000).

7.3.3. Familial Causes

While this medical model approach to understanding addiction is not inherently problematic, as demonstrated by the decrease in stigma when the model is promoted, it does have the potential to obscure and even ignore the influence of the Social and behavioral causes of addiction represented by the Familial, Social, and Hedonistic clusters. In particular, the Familial cluster causes embody some of the structural impediments that often lead to addiction. A few of them referred to structural economic components (*low social class, high social class,* and *environment),* while others referred specifically to the actions of family members (*childhood exposure to family members using drugs/alcohol* and *lack of family/friend support).* Bourgois and Schonberg (2009) emphasize and depict these structural aspects throughout *Righteous Dopefiend,* by demonstrating that despite the desire to find work on the legal labor market and attempts to reduce the danger of their substance use, addicts in the book are confined to their status not just by their physical need for heroin/crack, but also by the political and economic forces holding them in place.

As discussed in Chapter 2 of this thesis, Anslinger, a former drug czar of the United States, once claimed that addiction does not happen if a "child comes from a good family" (Anslinger and Chapman, 1957, as cited in Courtwright, 2002, p. 21). Primarily, he was referring to the instability of black families and attempting to paint drug addiction as primarily a racial problem. However, the familial relations of the addicts in Bourgois and

Schonberg (2009) are ethnically distinctive, though not in the way predicted by Anslinger. They note that while African American families continue to attempt to coax their family members back home, white families often cut ties with their family member living on the street. Though these racial differences exist, they persist in a very different manor than was hypothesized by Anslinger. Both poor and good home lives transcended racial lines, but the major difference occurred in the familial response to individuals with substance use disorder. While most African American families chose to accept their family members, white families often stigmatized drug users and rejected their kin.

The current shift in the demographics of drug use and the social understanding of addiction has the potential to influence this pattern. During the interviewing phase of this study, several individuals noted they believed that addiction "could happen to anyone" and that having a poor home life was not necessarily indicative of ethnicity. Furthermore, the phrase "it depends on the person" surfaced in 9 of the 38 pile-sorting interviews and other diminutive forms of the phrase appeared in several more. This expression seemed to attempt to capture the individualistic nature of addiction, despite largescale recognition of external factors affecting the development of disorder. One informant claimed, "I honestly think it depends on the person, like if they want it for themselves, your family can't push you to lose your addiction, you have to want it for yourself." In other words, while external factors are influential in the development of addiction, they are only helpful to a certain extent during recovery.

On the influence dimension, familial causes ran the spectrum, with *poor home life* achieving a fairly high rating (2.34), *environment, childhood exposure to family members using drugs/alcohol,* and *lack of family/friend support* scoring moderately (2.25, 2.19, 2.16,

respectively), and *to rebel against parents/authority, being in a low social class,* and *being in a high social class* faring poorly (1.57, 1.38, and 1.11, respectively). Those that were rated moderately to highly could be thought of as having a more direct effect on the individual, as opposed to the more long-term economic-structural issues that were rated lower. Residual agreement analysis of this dimension demonstrated that individuals, for the most part, agreed on the ratings of these causes. Although they wavered in both directions around the origin, these causes largely retained their original ratings. This steadfastness is significant, as it demonstrates the necessity of including familial causes in both the medical and moral models of addiction. Further research should investigate whether these causes share the same *meaning* between individuals who adhere to the moral model and individuals who adhere to the medical model.

7.4. Moral Foundations Questionnaire and Attributed Stigma

The MFQ was used to better understand how individuals make moral judgments and how mechanisms of moral decision-making relates to stigma attributions. Moral foundations theory developed from the idea that people rely on a few foundational constructs to judge whether things or events are right or wrong. Haidt and Joseph (2007) posited the existence of five of these constructs (care/harm, fairness/cheating, ingroup loyalty, authority, and purity), and the utility of these constructs was demonstrated by relating them to types of moral decisions and tying them to political conservatism and liberalism in the United States (Graham et al., 2009; McAdams, Albaugh, Farber, Daniels, Logan, and Olson, 2008; van Leeuwen and Park, 2009). Political conservatives in the United States tend to more strongly rely on the "ingroup," "authority," and "purity" foundations when making moral decisions, whereas political liberals utilize the "harm" and "fairness"

foundations. These five foundations can be combined together to formulate an overall measure of trait progressivism.

Two separate regression analyses were run: the first utilizing the trait progressivism measure and the second utilizing the five moral foundation measures. Interaction effects between each of the five foundations and the residual agreement coefficients on the influence dimension were also tested in the second regression model. Trait progressivism was shown to be negatively associated with stigma attribution, which means that higher levels of progressivism resulted in lower levels of stigma. In the United States, political progressives or liberals tend to more strongly endorse equality and government spending on social services (Sullivan, 2009). Further, according to Jost, Glaser, Kruglanski, and Sulloway (2003), toleration of or opposition to inequality stands as one of the most significant psychological dimensions that separates conservatives from liberals. While liberals strongly disapprove of inequality, conservatives have a relatively high tolerance for it. These traits could lead political liberals to have a greater cognizance of the structural processes that lead to addiction, and, in turn, this could be associated with believing that addiction is less a function of personal choice and control. Further, this could mean that liberals are more likely to see persons with substance-use disorder as persons deserving of equality and be more understanding of their current position.

These liberal tendencies are captured primarily by the "fairness" foundation measure of the MFQ. Though originally entered into the regression model, the other liberal foundation, "care," was not significant in explaining attributed stigma. The lack of significance of the "care" dimension could possibly be tied to the viewpoint that addiction is inherently "harmful" to the individual. Therefore, it would follow that both conservatives

and liberals would agree on this issue. For "fairness," however, in previous studies regarding the role of the five foundations in predicting moral disapproval, researchers have been somewhat surprised to note that "fairness" was the weakest predictor (Koleva et al., 2009). Koleva and colleagues explain this lack of significance by suggesting that perhaps the personal identification of their participants as "liberal" or "conservative" captured the potential variance explained by the "fairness" foundation. As this study did not ask study participants to self-identify on the liberal-conservative spectrum, this could explain why "fairness" arose as one of the top predictors.

Political conservatives in the United States tend to directly contrast with liberals in terms of equality and government spending on social services (Gottfried, 2007). In nearly every U.S., conservative legislators have proposed bills that would require individuals applying for or receiving public assistance to pass a drug-test. However, these bills have only been successfully passed in a few states (ACLU, 2008). Failure to pass the drug test results in expulsion from the program in these states. In seeking to reduce the state's complicity in drug addiction, these conservative lawmakers are essentially deeming drug addicts as undeserving of help. This idea builds on the premise that drug users are independently responsible for their substance-use disorder and, therefore, others should not be expected to help or pity them. These two concepts, help and pity, were fundamental in the personal responsibility portion of the stigma measure, which could explain why conservatism was related to higher stigma attribution.

Two of the foundations that correspond to political conservatism, authority and ingroup loyalty, were not significant in predicting attributed stigma levels. Potentially, this could be due to the nature of addiction and how it is broadly understood by society. As

discussed several times throughout this thesis, drug use is often inherently illegal and, therefore, it is in direct opposition to authority and disloyal to the individual's social and familial networks. Koleva et al. (2009) found that purity scores were most strongly associated with issues pertaining to the sanctity of life. In their study, this referred to issues such as abortion, cloning, euthanasia, and stem-cell research. They suggest that this could be due to individuals with high purity scores having a "moral sensitivity" to issues of body cleanliness and self-control. In this way, the act of drug use could be interpreted as the act of introducing unclean substances into the body.

Out of the six interaction effects tested in the linear regression model, only the interaction between purity and residual agreement on the influence dimension was statistically significant. Essentially, relying heavily on the purity intuition increases the effects of the residual agreement coefficients on stigma attributions. Haidt and Graham (2006) also related purity based judgments to being anti-hedonism and pro-personal control, which have both been demonstrated as being inherent to the moral model of addiction. Therefore, when the purity construct has been internalized, it allows for the individuals to make harsher judgments about control and choice, which increases the stigma attributed to individuals influenced by the Social and Hedonistic causes.

7.5. Future Directions

7.5.1. Gateway Drug Theory and the Cultural Model

One excerpt from the pile-sorting interviews revolved around potential differences between the types of substances that are used by "young" individuals versus "older" individuals. It quickly became apparent that there were two narratives dominating people's conception of age-based substance use. In the first, gateway drug theory prevailed, as

young individuals typically began experimenting with "low-level" substances such as alcohol, before graduating to marijuana and so on until they reached a penultimate addiction to "hard" drugs when they were older. One participant explained,

> I believe in the whole gateway drug scenario for the most part. When you start out in college, you start out with what everyone else is doing. So, drinking and cigarettes, mostly. Coke, or whatever. Which, I mean, in small doses, I guess aren't that terrible. But if you stay on that path, you're just going to start trying things you haven't tried before, because you're looking for that excitement.

This fits with the two potential sources of a perceived gateway effect described by MacCoun (1998). In the first, MacCoun discusses the belief that it could be the drug that leads the individuals, as suggested by the participant regarding the necessity of different types of substances to match the same "excitement" from earlier stages of use. Further, in the second, MacCoun stresses the impact of peer groups and social interactions, which is suggested by the influence of peers at the beginning of the "path."

The second prevailing narrative surrounding age-based differences in substance use was virtually the opposite of gateway drug theory. Individuals who supported this narrative believed that younger individuals were more likely to "experiment" with harder drugs, whereas older individuals tended to be addicted to "old favorites" like alcohol or prescription narcotics. "I think that one's more to have fun … more of a social acceptance type thing. But when you get older, it's more of a coping mechanism to stress, pain, or whatever you have to get by for some people." This narrative suggests that age-based differences in motivations could be an additional dimension to the model of addiction causality. Often, it was suggested that younger individuals were more susceptible to causes

that originated in the Social and Hedonistic realms, whereas adults primarily abused drugs in order to self-medicate.

7.5.2. An Addict Model of Addiction Causality and Cultural Consonance

A potential next step of this research could involve delving into the "addict" model of addiction causality in order to determine if it lines up to the lay model. Further, cultural consonance could be used to determine how the model lines up with the experiences of the individual. Dressler (2007) defines cultural consonance as "the degree to which individuals, in their own beliefs and behaviors, approximate the shared expectations encoded in cultural models" (p. 185). While acknowledging the group consensus on cultural domains, cultural consonance measures the extent to which a cultural model is actually enacted by the individual.

Consonance with either the moral or the medical model of addiction causality could be tested in relation to levels of perceived stigma. While attributed stigma measures disapproval held by society at large, perceived stigma addresses the level of disapproval felt and understood by the individual, whether present in society or not. Predictably, consonance with the medical model could lead to lower levels of perceived stigma, as "blame" is not placed on the character of the individual, but on biology instead. Whereas, consonance with models that identify moral causes as the most salient would predictably lead to higher levels of perceived stigma.

Consonance with the model could also be compared with beliefs about the efficacy of treatment methods and treatment outcomes. Treatment for disorders should target not only the symptoms of the disorder, but also the causes of the disorder. Otherwise, the treatment is merely palliative and only helpful in the short term. For instance, those most

consonant with the medical model would presumably view addiction as primarily a biomedical disorder that requires Western medicine for treatment. However, consonance with the moral model could indicate that the social situation of the addict plays a critical role in substance use practices, and, thus, biomedicine as treatment would not be thought of as being helpful. Instead, other treatment options, such as Alcoholics Anonymous and its sister 12-step programs that promote the development of community acceptance based on identity formation could potentially be more efficacious. This could shed lights on ways to make addiction treatment more affective and ultimately reduce relapse rates.

7.6. Conclusion

The overall shared model of addiction causality indicates that despite the historical shifts in social and political treatment of addicts and addiction, students continue to draw from joint cultural understandings. Elements of the overall model represent an attempt by the American public to reconcile the medical, political, and moral aspects of addiction. However, the moderate consensus on the influence dimension is where the cracks in the reconciliation begin to shine through. I suggest that this provides evidence for the existence of two alternative perspectives on the model of addiction causality. In the first, the moral model, the Hedonistic and Social causes are preferred over the Self-Medication and Biomedical causes. In the medical model, Self-Medication and Biomedical causes are rated more highly than the Hedonistic and Social causes. In both the medical and the moral model, Familial causes retain their salience in leading to addiction.

The Control dimension was instrumental in explaining the major distinction between these two perspectives. In the moral model, addiction is perceived as something that the individual can control. In other words, the individual maintains his/her status as

an active agent. In the medical model, addiction is instead perceived as something that happens to the individual. Though adherence to this perspective was associated with lower levels of stigma, it also has the potential to obscure the structural and social causes represented by the other aspects of the model. In contrast, the Network dimension was not helpful in describing how or why individuals stigmatize people with addiction, but it was integral to defining the cognitive map of the model of addiction causality, as represented by the MDS plot presented in the results chapter of this thesis.

Finally, moral foundations theory was used to explore how the mechanics of moral decision-making relate to stigma attribution. More progressive individuals were less likely to stigmatize people with addiction, whereas less progressive individuals were more likely to stigmatize people with addiction. However, this progressivism construct could be boiled down to just two of the five moral foundations: fairness and purity. Individuals who relied heavily on the fairness construct could be seen as attempting to maintain the addict's integrity and status as a human. In contrast, individuals who relied more on purity potentially saw the act of drug use as inherently impure, caving to hedonistic desires, and giving up personal control.

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APPENDIX A

PHASE I INTERVIEW SCHEDULE

1. Gender _____
2. Age _____
3. Year in University _____

What do you think causes people to become addicted to drugs and alcohol?

1._____ 11._____

2._____ 12._____

3._____ 13._____

4._____ 14._____

5._____ 15._____

6._____ 16._____

7._____ 17._____

8._____ 18._____

9._____ 19._____

10._____ 20._____

Can you describe what you mean by cause X?

APPENDIX B

PHASE II INTERVIEW SCHEDULE

Please sort these cards into as many piles as you deem necessary in any way that you deem necessary. The only rule is that you cannot sort the cards into a single large pile.

Starting with Group 1 and going through each of the groups

1. Why did you sort these cards together?
2. Could you give this group of cards a title or a theme name?
3. Are there any cards that you had trouble sorting into a group?
4. Are there any causes that you believe are not a causes of addiction?

---

1. When participating in the pile-sorting exercise, was there a particular person or group of persons that you were picturing?
2. When you envision an addict or a substance abuser, what type of substance do you envision them abusing?
3. Why do you think that particular substance comes to mind?
4. Do you think there's a difference between the types of substances that are abused by younger college-aged people versus people later in life?
5. Do you believe your piles would change if you were asked to re-complete the pile-sorting exercise with a particular substance in mind?

---

1. Have you ever known anyone who abused substances, such as drugs or alcohol?
    2. What type of substance did the individual(s) abuse?
    3. What do you think caused or led to the substance abuse?
    4. Did they receive any kind of treatment for their substance abuse?
        5. What type of treatment did they receive?
        6. Do you believe that the treatment was successful?
        7. Why do you believe that the treatment was (un)successful?
    8. What do you believe inhibited or constrained them from seeking treatment?

---

1. Can you name any other types of addiction treatment programs?
2. Do you think that overall addiction treatment programs are successful or unsuccessful?
    3. Why is that?
4. What, if any, programs on campus have you heard of regarding education, treatment, or policy about drugs, alcohol, and addiction?

APPENDIX C

PHASE III SCALES

Part I: The following survey asks basic questions about your demographic information and your experiences with addiction in your personal and familial network

1. Gender: _____

2. Ethnicity: _____

3. Age as of Last Birthday: _____

4. Year at University (i.e. Freshman): _____

5. Years of Residency in Alabama: _____

6. In which state have you lived in the longest? _____

7. Would you consider the community in which you grew up in as: (Circle Below)

Rural Urban

8. Would you consider your family to be a part of the: (Circle Below)

Lower Class Middle Class Upper Class

9. Which, if any, religion do you consider yourself to be affiliated? _____

10. How many times in the past month have you attended religious services?_____

11. How important do you believe the use of gateway drugs are in the ultimate development of addiction?

0: Not at all important	1	2	3: Very Important

12. Do you know someone who has been addicted to substances or alcohol? (Circle Below)

No Yes, but we're not close. Yes, and I know this person well.

13. What type(s) of substances have the people that you know abused? List all that apply.

_____

_____

14. Have you ever known anyone who received treatment for Substance Use Disorder?

Yes No

If so, what types of treatment?

_____

Was treatment successful or unsuccessful? _____

Why do you believe that treatment was successful or unsuccessful?

_____

_____

15. Do you believe that substance abuse treatment programs are more often successful or unsuccessful? _____

Why? _____

_____

16. What do you believe is the biggest factor in whether or not treatment is successful or unsuccessful?

_____

_____

Part II. The following survey was designed to understand why morality varies so much cross-culturally, yet still shows many similarities and recurrent themes. In brief, the survey will be used to ascertain differences in key facets of morality and determines how you develop moral attributions. There are 2 parts. Please fill in the answers as you are instructed. There are no right or wrong answers to any of the questions.

When you decide whether something is right or wrong, to what extent are the following considerations relevant to your thinking? Please rate each statement using this scale:

[0] = not at all relevant (This consideration has nothing to do with my judgments of right and wrong)
[1] = not very irrelevant
[2] = slightly irrelevant
[3] = somewhat relevant
[4] = very relevant
[5] = extremely relevant (This is one of the most important factors when I judge right and wrong)

_____Whether or not someone suffered emotionally

_____Whether or not some people were treated differently than others

_____Whether or not someone's action showed love for his or her country

_____Whether or not someone showed a lack of respect for authority

_____Whether or not someone violated standards of purity and decency

_____Whether or not someone was good at math

_____Whether or not someone cared for someone weak or vulnerable

_____Whether or not someone acted unfairly

_____Whether or not someone did something to betray his or her group

_____Whether or not someone conformed to the traditions of society

_____Whether or not someone did something disgusting

_____Whether or not someone was cruel

_____Whether or not someone was denied his or her rights

_____Whether or not someone showed a lack of loyalty

_____Whether or not an action caused chaos or disorder

_____Whether or not someone acted in a way that God would approve of

Please read the following sentences and indicate your agreement or disagreement:

[0] = Strongly Disagree
[1] = Moderately Disagree
[2] = Slightly Disagree
[3] = Slightly Agree
[4] = Moderately Agree
[5] = Strongly Agree

_____Compassion for those who are suffering is the most crucial virtue.

_____When the government makes laws, the number one principle should be ensuring that everyone is treated fairly.

_____I am proud of my country's history.

_____Respect for authority is something all children need to learn.

_____People should not do things that are disgusting, even if no one is harmed.

_____It is better to do good than to do bad.

_____One of the worst things a person could do is hurt a defenseless animal.

_____Justice is the most important requirement for a society.

_____People should be loyal to their family members, even when they have done something wrong.

_____Men and women each have different roles to play in society.

_____I would call some acts wrong on the grounds that they are unnatural.

_____It can never be right to kill a human being.

_____ I think it's morally wrong that rich children inherit a lot of money while poor children inherit nothing.

_____ It is more important to be a team player than to express oneself.

_____ If I were a soldier and disagreed with my commanding officer's orders, I would obey anyway because that is my duty.

_____ Chastity is an important and valuable virtue.

Part III: The following is a survey for testing hypotheses about the features used in sorting potential causes of addiction. There are three parts. Please fill in the answers as you are instructed. There are no right or wrong answers to any of the questions. When responding, think in terms generally of how each individual cause might be regarded in the community.

For each of the causes of addiction listed below, **please indicate how influential you believe each cause is in the development of an addiction to drugs or alcohol** by putting an "x" in the appropriate column.

		0: Not at All	1	2	3: Very Much
1	Peer Pressure				
2	Stress				
3	Depression				
4	Loneliness				
5	Poor Home Life				
6	Enjoyment				
7	Genetics				
8	Social Media				
9	Past Traumatic Events				
10	Easy Access to Drugs/Alcohol				
11	Desire for Acceptance				
12	Being in a High Social Class				
13	Being in a Low Social Class				
14	Childhood Exposure to Family Members Using Drugs/Alcohol				
15	Environment				
16	Coping Mechanism				
17	Having Friends that Use Drugs/Alcohol				
18	Curiosity				
19	Low Self-Esteem				
20	Emotional Instability				
21	Boredom				
22	Addictive Properties of Drugs/Alcohol				
23	Repetitive Use of Drugs/Alcohol				
24	Lack of Will Power				
25	Lack of Family/Friend Support				
26	Pain				
27	Having an Addictive Personality				
28	To Rebel Against Parents/Authority				

People have varying ideas about the causes of addiction. Some of the causes of addiction seem to be out of the individual's control, while others may not be. For each of the causes of addiction listed below, **please indicate the level of control that you believe the individual is able to exert over the listed cause** by putting an "x" in the appropriate column.

		0: Not at All Under Personal Control	1	2	3: Completely Under Personal Control
1	Peer Pressure				
2	Stress				
3	Depression				
4	Loneliness				
5	Poor Home Life				
6	Enjoyment				
7	Genetics				
8	Social Media				
9	Past Traumatic Events				
10	Easy Access to Drugs/Alcohol				
11	Desire for Acceptance				
12	Being in a High Social Class				
13	Being in a Low Social Class				
14	Childhood Exposure to Family Members Using Drugs/Alcohol				
15	Environment				
16	Coping Mechanism				
17	Having Friends that Use Drugs/Alcohol				
18	Curiosity				
19	Low Self-Esteem				
20	Emotional Instability				
21	Boredom				
22	Addictive Properties of Drugs/Alcohol				
23	Repetitive Use of Drugs/Alcohol				
24	Lack of Will Power				
25	Lack of Family/Friend Support				
26	Pain				
27	Having an Addictive Personality				
28	To Rebel Against Parents/Authority				

People have varying views about the causes of addiction. Some people believe that addiction is primarily caused by factors relating directly to the individual, while others point to environmental influences such friends and family. In this section, **rate each cause of addiction listed below in terms of whether it deals solely with the individual or with the individual's social and familial networks** by putting an "x" in the appropriate column.

		0: Solely Individual	1: Mostly Individual	2: Mostly Network	3: Solely Network
1	Peer Pressure				
2	Stress				
3	Depression				
4	Loneliness				
5	Poor Home Life				
6	Enjoyment				
7	Genetics				
8	Social Media				
9	Past Traumatic Events				
10	Easy Access to Drugs/Alcohol				
11	Desire for Acceptance				
12	Being in a High Social Class				
13	Being in a Low Social Class				
14	Childhood Exposure to Family Members Using Drugs/Alcohol				
15	Environment				
16	Coping Mechanism				
17	Having Friends that Use Drugs/Alcohol				
18	Curiosity				
19	Low Self-Esteem				
20	Emotional Instability				
21	Boredom				
22	Addictive Properties of Drugs/Alcohol				
23	Repetitive Use of Drugs/Alcohol				
24	Lack of Will Power				
25	Lack of Family/Friend Support				
26	Pain				
27	Having an Addictive Personality				
28	To Rebel Against Parents/Authority				

Part IV: Some health conditions, such as addiction, receive a lot of attention from others. The following is a survey for testing attitudes about people with substance use disorder. Please circle the number that best fits your answer. There are no right or wrong answers.

1. I would feel aggravated by persons with substance abuse disorders.

1	2	3	4	5	6	7	8	9

Not at all — Very Much

2. I would feel unsafe around persons with substance abuse disorders.

1	2	3	4	5	6	7	8	9

No, not at all — Yes, very Much

3. Persons with substance abuse disorders terrify me.

1	2	3	4	5	6	7	8	9

Not at all — Very Much

4. How angry do persons with substance abuse disorders make you feel?

1	2	3	4	5	6	7	8	9

Not at all — Very Much

5. I think persons with substance abuse disorders pose risk to other people unless they are treated.

1	2	3	4	5	6	7	8	9

Not at all — Very Much

6. I feel pity for persons with substance abuse disorders.

1	2	3	4	5	6	7	8	9

Not at all — Very Much

7. How controllable do you think substance abuse disorders are?

1	2	3	4	5	6	7	8	9

Not at all under personal control — Completely under personal control

8. How irritated would you feel by a person with a substance abuse disorder?

1	2	3	4	5	6	7	8	9

Not at all — Very Much

9. How dangerous do you feel a person with a substance abuse disorder is?

1	2	3	4	5	6	7	8	9

Not at all — Very Much

10. I would feel threatened by a person with a substance abuse disorder.

1	2	3	4	5	6	7	8	9

No, not at all — Yes, absolutely

11. How scared of a person with a substance abuse disorder would you feel?

1	2	3	4	5	6	7	8	9

Not at all Very Much

12. How likely is it that you would help a person with a substance abuse disorder?

1	2	3	4	5	6	7	8	9

Definitely would not help Definitely would help

13. How certain do you feel that you could help a person with a substance abuse disorder?

1	2	3	4	5	6	7	8	9

Not at all certain Absolutely certain

14. How much sympathy would you feel for a person with a substance abuse disorder?

1	2	3	4	5	6	7	8	9

None at all Very Much

15. How responsible do you think a person with a substance abuse disorder is for their present condition?

1	2	3	4	5	6	7	8	9

Not at all responsible Very Responsible

16. How frightened of a person with a substance abuse disorder would you feel?

1	2	3	4	5	6	7	8	9

Not at all Very Much

17. How sorry do you feel for persons with substance abuse disorders?

1	2	3	4	5	6	7	8	9

Not at all Very Much

18. I would try to avoid a person with a substance abuse disorder.

1	2	3	4	5	6	7	8	9

Definitely Definitely not

19. How much concern do you feel for persons with substance abuse disorders?

1	2	3	4	5	6	7	8	9

None at all Very Much

20. If I were a landlord, I probably would rent an apartment to a person with a substance abuse disorder.

1	2	3	4	5	6	7	8	9

Definitely Definitely not

APPENDIX D

IRB APPROVAL LETTERS

See following pages.

June 15, 2015

Office for Research

Institutional Review Board for the
Protection of Human Subjects

THE UNIVERSITY OF
ALABAMA
RESEARCH

William Dressler, Ph.D.
Dept of Anthropology
College of Arts and Sciences
Box 870210

Re: IRB # 15-OR-193-ME, "Connections between the Folk Psychiatry of Addiction and Levels of Attributed Stigma"

Dear Dr. Dressler:

The University of Alabama Institutional Review Board has granted approval for your proposed research.

Your application has been given expedited approval according to 45 CFR part 46. Approval has been given under expedited review category 7 as outlined below:

(7) Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies.

Your application will expire on June 14, 2016. If your research will continue beyond this date, please complete the relevant portions of the IRB Renewal Application. If you wish to modify the application, please complete the Modification of an Approved Protocol Form. Changes in this study cannot be initiated without IRB approval, except when necessary to eliminate apparent immediate hazards to participants. When the study closes, please complete the Request for Study Closure Form.

Please use reproductions of the IRB approved stamped consent forms to obtain consent from your participants.

Should you need to submit any further correspondence regarding this proposal, please include the above application number.

Good luck with your research.

Sincerely,

Carpantato T. Myles, MSM, CIM, CIP
Director & Research Compliance Officer
Office for Research Compliance
The University of Alabama

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Connections between the Folk Psychiatry of Addiction and Levels of Attributed Stigma
Consent Form – Phase I – Nicole Henderson

FOR QUESTIONS ABOUT THE STUDY, CONTACT: Dr. William W. Dressler, Professor of Anthropology, University of Alabama. (205) 348-1954; wdressle@as.ua.edu or Nicole Henderson, MA student in Anthropology at the University of Alabama (864) 814-9388; nlhenderson1@crimson.ua.edu

DESCRIPTION: You are invited to participate in a research study on determining how experiences effect how individuals understand addiction and how those understandings relate to how they attribute stigma towards individuals with substance use disorder. You will be asked "What do you think causes people to become addicted to drugs and alcohol?" Your answers will be combined with the answers of other participants in the study to form a cultural model of addiction causality.

RISKS AND BENEFITS: The risks associated with this study are minimal to none. Though it is not anticipated, if any of the questions or statements makes you uncomfortable, you are free to decline to answer and leave the study immediately. You will receive extra credit in class if you participate in this study. We cannot and do not guarantee or promise that you will receive any other benefits from this study. Your decision whether or not to participate in this study will not negatively grades in school.

TIME INVOLVEMENT: Your participation in this experiment will take approximately 5-10 minutes.

PAYMENTS: You will not receive any payment for your participation.

SUBJECT'S RIGHTS: If you have read this form and have decided to participate in this project, please understand your participation is voluntary and you have the right to withdraw your consent or discontinue participation at any time without penalty. You have the right to refuse to answer particular questions. Your individual privacy will be maintained in all published and written data resulting from the study.

PARTICIPANT CONFIDENTIALITY: Your individual privacy will be maintained in all published and written data resulting from the study. Your name will not be attached to the answers you provide and no one besides the individuals listed above will have knowledge that you participated in the study. You will not be contacted at a later date for further participation in this particular study.

If you have questions about your rights as a study participant, or are dissatisfied at any time with any aspect of this study, you may contact - anonymously, if you wish - Ms. Tanta Myles, the Research Compliance Officer of the University of Alabama at (205)-348-8461 or toll-free at 1-877-820-3066. You may also ask questions, make suggestions, or file complaints and concerns through the IRB Outreach Website at http://osp.ua.edu/site/PRCO_Welcome.html. You may email us at participantoutreach@bama.ua.edu.

The extra copy of this consent form is for you to keep.

SIGNATURE _____ DATE _____

Protocol Approval Date: _____

Protocol Expiration Date: _____

UNIVERSITY OF ALABAMA IRB
CONSENT FORM APPROVED: 6-15-15
EXPIRATION DATE: 6-14-16

Connections between the Folk Psychiatry of Addiction and Levels of Attributed Stigma
Consent Form – Phase II – Nicole Henderson

FOR QUESTIONS ABOUT THE STUDY, CONTACT: Dr. William W. Dressler, Professor of Anthropology, University of Alabama. (205) 348-1954; wdressle@as.ua.edu or Nicole Henderson, MA student in Anthropology at the University of Alabama (864) 814-9388; nlhenderson1@crimson.ua.edu

DESCRIPTION: You are invited to participate in a research study on determining how experiences effect how individuals understand addiction and how those understandings relate to how they attribute stigma towards individuals with substance use disorder. 20 potential causes of addiction will be listed on individual notecards. You will be asked to sort the cards into as many piles as you wish, in any way you deem necessary. Next, you will be asked a series of questions regarding your experience with other individuals with substance use disorder and your conception of the stereotypical addict in America. With your consent, this section of the interview will be recorded. No one will have access to the recordings besides the individuals listed above.

RISKS AND BENEFITS: The risks associated with this study are minimal to none. Though it is not anticipated, if any of the questions or statements makes you uncomfortable, you are free to decline to answer and leave the study immediately. You will receive extra credit in class if you participate in this study. We cannot and do not guarantee or promise that you will receive any other benefits from this study. Your decision whether or not to participate in this study will not negatively grades in school.

TIME INVOLVEMENT: Your participation in this experiment will take approximately 20-30 minutes.

PAYMENTS: You will not receive any payment for your participation.

SUBJECT'S RIGHTS: If you have read this form and have decided to participate in this project, please understand your participation is voluntary and you have the right to withdraw your consent or discontinue participation at any time without penalty. You have the right to refuse to answer particular questions.

PARTICIPANT CONFIDENTIALITY: Your individual privacy will be maintained in all published and written data resulting from the study. Your name will not be attached to the answers you provide and no one besides the individuals listed above will have knowledge that you participated in the study. You will not be contacted at a later date for further participation in this particular study. After the recordings of the interview have been transcribed, a pseudonym will immediately be put in place to guarantee your anonymity. The tapes will also be erased after transcription.

If you have questions about your rights as a study participant, or are dissatisfied at any time with any aspect of this study, you may contact - anonymously, if you wish - Ms. Tanta Myles, the Research Compliance Officer of the University of Alabama at (205)-348-8461 or toll-free at 1-877-820-3066. You may also ask questions, make suggestions, or file complaints and concerns through the IRB Outreach Website at http://osp.ua.edu/site/PRCO_Welcome.html. You may email us at participantoutreach@bama.ua.edu.

I give consent to be audiotaped during this study:

please initial: __Yes __No

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Connections between the Folk Psychiatry of Addiction and Levels of Attributed Stigma
Consent Form – Phase II – Nicole Henderson

I give consent for tapes resulting from this study to be used for research and educational purposes. I understand that my identification will be removed or masked and there is no other information that can link my identity with the tapes.

please initial: __Yes __No

The extra copy of this consent form is for you to keep.

SIGNATURE _____ DATE _____

Protocol Approval Date: _____

Protocol Expiration Date: _____

UNIVERSITY OF ALABAMA IRB
CONSENT FORM APPROVED: 6-15-15
EXPIRATION DATE: 6-14-16

Connections between the Folk Psychiatry of Addiction and Levels of Attributed Stigma
Consent Form – Phase III – Nicole Henderson

FOR QUESTIONS ABOUT THE STUDY, CONTACT: Dr. William W. Dressler, Professor of Anthropology, University of Alabama. (205) 348-1954; wdressle@as.ua.edu or Nicole Henderson, MA student in Anthropology at the University of Alabama (864) 814-9388; nlhenderson1@crimson.ua.edu

DESCRIPTION: You are invited to participate in a research study on determining how experiences effect how individuals understand addiction and how those understandings relate to how they attribute stigma towards individuals with substance use disorder. There are 4 short questionnaires that you will be asked to fill out. The first is a general questionnaire with basic demographic questions. The second is Moral Foundations Questionnaire, which measures how individuals develop moral attributions. On the third, you will be asked to rate a series of potential causes in terms of how influential you believe the cause is in the development of an addiction to drugs or alcohol. Finally, you will be asked to rate your agreement with various statements regarding stigma of substance abuse.

RISKS AND BENEFITS: The risks associated with this study are minimal to none. Though it is not anticipated, if any of the questions or statements makes you uncomfortable, you are free to decline to answer and leave the study immediately. You will receive extra credit in class if you participate in this study. We cannot and do not guarantee or promise that you will receive any other benefits from this study. Your decision whether or not to participate in this study will not negatively grades in school.

TIME INVOLVEMENT: Your participation in this experiment will take approximately 15-20 minutes.

PAYMENTS: You will not receive any payment for your participation.

SUBJECT'S RIGHTS: If you have read this form and have decided to participate in this project, please understand your participation is voluntary and you have the right to withdraw your consent or discontinue participation at any time without penalty. You have the right to refuse to answer particular questions. Your individual privacy will be maintained in all published and written data resulting from the study.

PARTICIPANT CONFIDENTIALITY: Your individual privacy will be maintained in all published and written data resulting from the study. Your name will not be attached to the answers you provide and no one besides the individuals listed above will have knowledge that you participated in the study. You will not be contacted at a later date for further participation in this particular study.

If you have questions about your rights as a study participant, or are dissatisfied at any time with any aspect of this study, you may contact - anonymously, if you wish - Ms. Tanta Myles, the Research Compliance Officer of the University of Alabama at (205)-348-8461 or toll-free at 1-877-820-3066. You may also ask questions, make suggestions, or file complaints and concerns through the IRB Outreach Website at http://osp.ua.edu/site/PRCO_Welcome.html. You may email us at participantoutreach@bama.ua.edu.

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Connections between the Folk Psychiatry of Addiction and Levels of Attributed Stigma
Consent Form – Phase III – Nicole Henderson

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