

DISSERTATION

ALCOHOL USE AND MISUSE AS A SELF-PRESENTATIONAL TACTIC AMONG  
COLLEGE FRESHMEN: AN INVESTIGATION OF INDIVIDUAL AND  
SITUATIONAL FACTORS

Submitted by

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In partial fulfillment of the requirements

For the degree of Doctor of Philosophy

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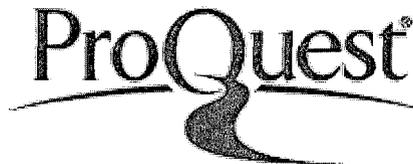
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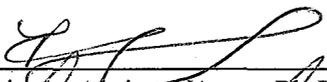
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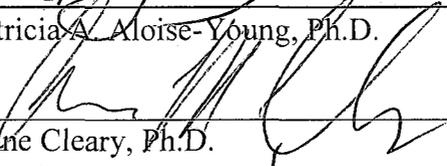
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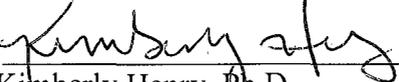
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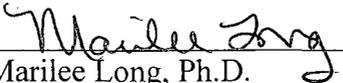
WE HEREBY RECOMMEND THAT THE DISSERTATION PREPARED UNDER OUR SUPERVISION BY MEGAN ALISON O'GRADY ENTITLED ALCOHOL USE AND MISUSE AS A SELF-PRESENTATIONAL TACTIC AMONG COLLEGE FRESHMEN: AN INVESTIGATION OF INDIVIDUAL AND SITUATIONAL FACTORS BE ACCEPTED AS FULFILLING IN PART REQUIREMENTS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY.

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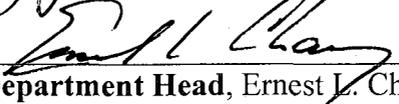
  
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ABSTRACT OF DISSERTATION  
ALCOHOL USE AND MISUSE AS A SELF-PRESENTATIONAL TACTIC AMONG  
COLLEGE FRESHMEN: AN INVESTIGATION OF INDIVIDUAL AND  
SITUATIONAL FACTORS

Two studies investigated underage college freshmen's alcohol use from the perspective of the two-component model of impression management (Leary & Kowalski, 1990). In the first study ( $n = 232$ ), situational impression motivation (low vs. high) and alcohol-related impression construction (i.e., alcohol norms; norm vs. control) were manipulated and alcohol self-presentation was measured using an Internet profile created by participants. In addition, dispositional measures related to impression motivation (e.g., self-monitoring) and alcohol-related impression construction (e.g., alcohol expectancies) were assessed. Results suggested that alcohol norms affected whether someone presented themselves as an alcohol user. In addition, several dispositional factors moderated the relationship between the situational impression motivation and alcohol use. Overall results suggested that participants in the low impression motivation condition were more likely to present themselves as alcohol users, but high self-monitors and people who drank heavily in social situations were especially more likely to present themselves as alcohol users as compared to those in the high impression motivation condition.

The second study utilized a daily process methodology. College freshmen in their first semester on campus ( $n = 65$ ) completed a daily Internet-based survey in which they answered questions related to their impression motivation, alcohol-related impression

construction cues, and alcohol use during face to face social interactions lasting longer than 10 minutes. As in study one, dispositional impression motivation and alcohol construction was assessed. Results confirmed the importance of the situational impression construction factors found in study one in increasing the likelihood of alcohol use. Further, several three-way interactions were found that suggested that for students with high alcohol expectancies, their alcohol use during social interactions increased as alcohol impression construction cues and impression motivation increased. In addition, for heavy social drinkers, alcohol use decreased as alcohol impression construction cues decreased and impression motivation increased. Implications for the two-component model of impression management, prevention of underage alcohol misuse, and studies of college student alcohol use are discussed.

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## CHAPTER 1

### INTRODUCTION

Alcohol is the drug of choice for adolescents in the United States and is used by more people than tobacco or illicit drugs (Johnston, O'Malley, Bachman, & Schulenberg, 2006). Dangerous alcohol consumption among college students has been an increasing area of concern due to the wide range of negative consequences that affect college student drinkers and those around them (National Institutes of Health (NIH), 2007; Perkins, 2002). As such, two recent initiatives from the NIH (Changing the Culture of College Drinking (2002) and the Surgeon General's (2007) call to action to prevent and reduce underage drinking) have reinforced the importance of continued study in the area of college drinking. Studies suggest that about 80% of college students drink alcohol and about 40% of college students ages 18-24 reported at least one occasion of heavy episodic drinking (5 or more drinks on an occasion) in the last 30 days (Hingson, Heeren, Winter, & Wechsler, 2005; NIH, 2007).

The current studies investigated underage college drinking from a self-presentational perspective. By taking this approach, these studies took into account both the dispositional and situational factors that may have played a role in encouraging alcohol misuse by college students. It is the hope that this type of research can help to inform alcohol misuse prevention programs for college students, and specifically programs targeting underage college freshman.

A variety of negative consequences can result from alcohol misuse. Common negative consequences for college drinkers include blackouts, hangovers, drunk driving, poor academic performance, disruption of sleep, damage to the still developing brain, verbal and physical violence, injuries, property damage, death from alcohol poisoning, and unprotected sex (LaBrie, Pedersen, Earleywine, & Olsen, 2006; Maddock, Laforge, Rossi, & O'Hare, 2001; NIH, 2007). Further, Hingson et al. (2005) reported that alcohol-related unintentional injuries as well as incidences of driving under the influence have shown increasing trends among the 18-24 year old college student population. Over 5,000 young people under 21 die each year due to underage alcohol use as the result of events such as unintentional injuries and motor vehicle crashes. Additionally, 700,000 college students are assaulted by other students who have been drinking, 100,000 students are victims of alcohol-related sexual assaults, and underage drinking is associated with illicit drug use and academic failure (Hingson et al., 2005). Therefore, it is clear that there can be serious consequences involved in misusing alcohol.

Underage college drinkers, particularly college freshman, have been a sub-population of concern. More than 80% of American youth have consumed alcohol before they are of legal drinking age (NIH, 2002). In addition, 18-20 year olds (which is the age range of the typical college freshman) represent the age group that has the highest prevalence of alcohol dependence (NIH, 2007). Many college freshman also live in dormitories where rates of drinking are much higher than rates of drinking among those who live off campus or with family (O'Hare, 1990). While other college sub-populations are of concern (e.g., athletes, fraternity/sorority members), students in their first year of college have been implicated as some of the heaviest drinkers (NIH, 2007). The first six

weeks of college enrollment can be critical to future success in college; however, many students initiate heavy drinking during this early phase of college (O'Hare, 1990).

Therefore, excessive consumption of alcohol could interfere with successful adaptation to college life.

A number of intervention strategies have been employed to decrease the levels of alcohol consumption among young adults, however these have only been moderately successful (Oei & Morawska, 2004). Smith and Goldman (1994) suggest that prevention attempts have failed in part due to the lack of readily available theory that can explain the causes of alcohol problems and high-risk drinking in young people. Therefore, only when the theoretical underpinnings behind the behavior are clearly understood can prevention programs truly be effective. A recent review of individual-focused strategies to reduce problematic use of alcohol suggests that for freshman students, motivational enhancement approaches, skills-training, and peer-based normative re-education may be useful in reducing both alcohol use and negative consequences of alcohol use (Larimer & Cronce, 2002). However, much research still needs to be done to clearly understand such interventions, their effectiveness, as well as their application to certain sub-populations of at-risk college students (e.g., underage freshmen). In addition, it is clear that more research needs to be conducted to understand the underlying cause of alcohol use and misuse among young people, particularly at-risk college students such as college freshmen. Therefore, the goal of the current study is to investigate the causes and correlates of alcohol use and misuse among underage college freshmen.

#### *Explanations for Alcohol Use*

There are a variety of explanations for heavy alcohol use which include biological/genetic predispositions, personality differences, childhood experiences, and environmental influences (Wood, Vinson, & Sher, 2001). Recently, in the field of psychology, several theoretical explanations specifically related to heavy alcohol use have emerged and are applicable to drinking among college students.

One explanation, alcohol expectancy theory, combines theories of learning and memory (Smith & Goldman, 1994). This theory captures individual differences in drinking patterns and is based on the idea that people have a certain expectation of the reinforcing effects of a behavior, in this case alcohol consumption (Jones, Corbin, & Fromme, 2001). Alcohol expectancies can be formed through observations of others as well as through one's own drinking experiences (O'Hare, 2001). Beginning with Brown, Goldman, Inn, and Anderson (1980), many studies have found that drinking behavior is positively related to positive expectancies and negatively related to negative expectancies (e.g., Christiansen & Goldman, 1983). Prevention programs with college populations have shown that interventions using an expectancy framework can decrease both alcohol expectancies and alcohol use (e.g., Darkes & Goldman, 1993).

Peer and social pressure have frequently been discussed in the literature as a cause of substance use and abuse among adolescents and young adults. However, definitions of "peer pressure" are often vague and specific mechanisms of how peers influence each other are often unclear (Borsari & Carey, 2001; Sharp & Getz, 1996). Sharp and Getz (1996) suggest that many research approaches in the area of substance abuse view young adults as passive rather than active in social situations involving substances, and that individuals who engage in substance use are deviant or in some other way deficient.

However, the actual individual and social processes that are behind “peer pressure” are often not clearly identified and seem to be somewhat misleading. More promising research suggests that peer influence appears to come from both direct and indirect influences (Perkins, 2003). For example, direct peer influence is a situation in which someone is explicitly attempting to get someone to drink alcohol; whereas indirect peer influence is a situation in which drinking behavior is modeled or perceived as popular among peers.

A major theoretical area related to indirect social pressure that has become increasingly popular in the psychological explanation of drinking behavior is the social norms approach. This approach incorporates the social environment, and began with the finding that college students regularly misperceive the alcohol norms among their student peers (Perkins, 2003). Specifically, though alcohol consumption levels in college students are typically high, there is a misperception among college students that the alcohol consumption norm among their peers is higher than what it is in reality (Perkins, 2003). Borsari and Carey (2003) suggest that this misperception in turn leads students to use alcohol in line with this higher misperceived norm. As a result, social norms interventions aim to change these misperceptions about alcohol norms by communicating what the true norms are (lower than the perceived norm), which in turn positively affects students by lowering alcohol use (Perkins, 2002).

Self-regulatory processes (i.e., self-control) have also been applied to alcohol consumption (Hull & Slone, 2004). One hypothesis that has been posited to explain differences in alcohol consumption is that individuals with low self-regulatory skills are less able to control their drinking (Hull & Slone, 2004). For example, it has been found

that lack of self-control, behavioral undercontrol, and susceptibility to temptation are related to increased alcohol consumption (Martin, Lynch, Pollock & Clark, 2000; Palfai, 2001; Wills, Duhamel, & Vaccaro, 1995). Further, lower efficacy to refuse alcohol, as well as situational variables (e.g., the presence of alcohol) can increase drinking behavior (Chutuape, Mitchell, & de Wit, 1994; Marlatt & Gordon, 1985).

A variety of other theoretical approaches such as the theory of planned behavior (Ajzen, 1985) and the health belief model (Rosenstock, 1966), are also popular approaches to explaining health-damaging behaviors such as alcohol use. However, the importance of interpersonal factors is somewhat underestimated in these popular theories, while health-related cognitions are overestimated (Martin-Ginis & Leary, 2004). For example, subjective norms are mentioned in the theory of planned behavior, but other factors like self-efficacy and calculation of risk are deemed more important. A newer model, the prototype willingness model of risk behavior, has started to incorporate interpersonal factors and suggests that some risk behavior can be explained by social image perceptions (Gerrard, Gibbons, Houlihan, Stock, & Pomery, 2008). According to this model, adolescents have a social image of the “typical drinker” their age. Further, it is suggested that adolescents realize that if they drink in public or with friends, they will acquire aspects of this social image themselves; therefore these images can serve as goal states to motivate drinking behavior.

It appears that these overlooked interpersonal factors in explaining health risk behavior need to be investigated further. Therefore, while the theoretical approaches that have been discussed here (e.g., norms, expectancies, health models) play an extremely important role in explaining alcohol use and guiding intervention programs, it is clear that

further research is still needed, in particular by combining and extending some of the important findings from these areas with a focus on both interpersonal and individual factors.

Impression management, or self presentation theory, has the potential to explain alcohol use by college students from both an individual and situational perspective. Self-presentation is a self-regulatory process in which people attempt to control the impressions they make. Correlational research has shown that alcohol can be used to manage impressions, especially among young adults (Martin & Leary, 2001); however, little research has investigated this relationship in depth. For example, no experimental research could be located that has investigated the specific cause of alcohol use as an effect of impression management processes (see Leary, Tchividjian, & Kraxberger, 1994). Further, limited research has taken place outside of the lab setting or from a daily process perspective to determine the effects of people's actual social interactions on general impression management (see Nezlek & Leary, 2002), nor has the specific relationship between alcohol use and impression management been researched extensively using daily process methods. The current study aims to address these research gaps by incorporating several major explanations of drinking behavior using self-presentation theory.

#### *Self-Presentation/Impression Management*

Self-presentation or impression management is “the process of controlling how one is perceived by other people” (Leary & Kowalski, 1990, p. 34). Self-presentation comes from the larger idea of self-identification whereby specifying one's identity refers to the “process, means, or result of showing oneself to be a particular kind of person”

(Schlenker, 1986, p. 23). Impression management sometimes is conceptualized as a process of concealing one's true self, (Schlenker & Wowra, 2003), but can also be conceptualized as a way to construct the self (Baumeister, 1993). Schlenker (1986) suggests that "impression management is a central part of the very nature of social interaction; it is inconceivable to discuss interpersonal relations without employing the concept" (p. 7). One of the main ideas behind self-presentation is that if we control how others think of us, we can influence how they subsequently treat us (Baumeister, 1993).

#### *Functions of Self-Presentation*

Impression management (or self-presentation) can serve several important functions. First, impression management can serve to influence other people (Leary, 1995). For example, positive or negative outcomes in situations, at least in part, may have to do with the impressions that one has made on others. This is the case because people are responding to the impressions that they have about the kind of abilities, personalities, attitudes and intentions we have and that make up who we are (Leary, 1995). Baumeister, Hutton, and Tice (1989) indeed found that when observing dyadic interactions, one person's self-presentation set an implicit norm in the observed interaction. For example, participants who were exposed to a self-promoting interaction partner became self-enhancing themselves.

Second, self-presentation is functional because it can help to regulate emotions. Positive emotions (or reduction in negative ones) can come about by being approved of and accepted by others (Leary, 1995). Therefore, people may manage their impressions to improve how they feel by gaining approval from others. In a series of experiments, Baumgardner, Kaufman, and Levy (1989) found that people with low-self esteem used

self-presentation to improve their affect. For example, after getting bogus positive or negative personality feedback, participants were asked to evaluate a computer program that gave them this positive or negative evaluation. Results showed that people with low self-esteem, who were in a condition in which their answers would be public (and therefore more susceptible to self-presentational concerns), tended to compliment the source of the positive feedback and derogate the source of the negative feedback (in this case the computer program they were evaluating). People with both low and high self-esteem did not show this pattern in the private conditions. Therefore, the public condition illustrates affect regulation as a result of self-presentation.

Third, impression management can help to construct and maintain one's self, and in particular one's self-esteem (Leary, 2001). When one succeeds at self-presentation, self-esteem is typically increased; however, when one fails at self-presentation, self-esteem may decrease (Leary, 1995). Therefore, not only can attempts to manage impressions change perceptions that others have, they can also change self-perceptions. For example, several studies show that experimentally lowered self-esteem causes people to become more highly motivated to engage in self-presentational behaviors (e.g., Miller & Schlenker, 1978).

This self-esteem function of self-presentation is very important when considering the expansive literature on self-esteem and the many theories that have emerged to explain why we have self-esteem (e.g., Pyszczynski, Greenberg, Solomon, Arndt, & Schimel, 2004). In general, it is assumed that having high self-esteem is a positive thing and that low self-esteem is detrimental (Crocker & Park, 2004). For example, Terror Management Theory (TMT) suggests that self-esteem buffers us against anxiety related

to our own mortality (Pyszczynski et al., 2004), while Sociometer Theory suggests that self-esteem serves as a meter that monitors the success and quality of one's interpersonal relationships (Leary, 1999). Whatever the underlying reason of the need for self-esteem, it seems that self-esteem may be very important because it is so strongly related to the beliefs one holds about oneself (e.g., someone with high self-esteem may believe that they are more intelligent) and could be functional by producing pleasant feelings such as happiness (Baumeister, Campbell, Krueger, & Vohs, 2003).

Crocker and Park (2004) suggest that it is important to consider how people go about boosting their self-esteem and that in some cases pursuing self-esteem can be costly in a variety of ways. For example, the pursuit of self-esteem can be harmful to relationships because people may be more focused on themselves than on those around them and in turn alienate others. Another example, and more pertinent to the topic at hand, is that the pursuit of self-esteem can be costly to the physical self through health-risk behaviors (Crocker & Park, 2004). Related to self-presentation, Crocker and Park suggest that people may be concerned about how they are being perceived and evaluated by others which may lead them to do things such as drink more alcohol, smoke, or engage in unsafe sex. In addition, in the self-presentation literature, there is evidence that people will derogate themselves or make an unfavorable impression in efforts to present themselves in a certain way or to avoid aversive events (Kowalski & Leary, 1990). For example, Britton, Martz, Bazzini, Curtin, and LeaShomb (2006) found that it is considered normative for women to degrade themselves to others about their bodies in order to create a positive impression. Therefore, by pursuing and attempting to maintain self-esteem through self-presentation, people may increase their self-esteem, however

they may also put themselves in harmful situations and even in situations in which self-esteem may ultimately be lower (Thornton, Audesse, Ryckman, & Burckle, 2006).

In addition, self-presentation assists in constructing and maintaining the self by keeping behavior consistent with the particular identity one would like to acquire (Leary, 1995). For example, a person who recently gets a new job as a firefighter might present themselves as brave to help to solidify this new identity. People therefore may acquire a particular identity by performing identity-related activities (Gollwitzer, 1986). A final reason that impression management is important to the self is that, “from an early age, we learn that impressions that parents, teachers, peers, and others have of us do have implications for our well-being” (Leary, 1995, p. 43).

Fourth, impression management is functional because it can help fulfill one’s need to belong (Baumeister, 1993). The need to belong is the idea that humans have a drive to form and maintain lasting, positive, and significant interpersonal relationships (Baumeister & Leary, 1995). Baumeister and Leary suggest that this need has an evolutionary basis in that forming and maintaining social relationships would assist in survival, reproduction, and the passing on of genes. Related to self-presentation, being rejected or excluded may be the result of making a poor impression on others and one way to avoid being rejected would be to display images that would assist in being included to fulfill the need to belong (Leary, 1995).

Fifth, Renner, Laux, Schutz, and Tedeschi (2004) suggest that self-presentation is adaptive because it may serve as a coping mechanism for stressful situations. For example, one might be able to hide anxiety about a situation by projecting an image of

self-confidence (Renner et al., 2004). In this way, self-presentation may buffer anxiety and assist people in interpersonal situations.

A final and overarching function that impression management serves is it assists in maximizing the reward-cost ratio in social relations. In general, people may be able to increase the rewards they receive (e.g., job promotion) and decrease the costs they incur (e.g., avoid getting fired from a job) by helping others to perceive them in a certain way or form certain impressions of them (Schlenker, 1980). According to Schlenker, rewards may include things like approval, friendship, assistance, and power.

In summary, self-presentational processes serve a variety of inter- and intra-personal processes. Therefore, the importance of self-presentation to social and self functioning makes the application of this theoretical area to alcohol use behavior appealing because such research could help to explain why alcohol is used so often among college students.

### *The Two-Component Model of Impression Management*

Recently, a two-component model of impression management has been posited (Leary & Kowalski, 1990) describing impression management as two discrete processes. The first component is *impression motivation*. The impression motivation component includes processes that explain how people become concerned about how others perceive them and what motivates them to regulate other people's impressions of them (Leary, 1995; Martin-Ginis & Leary, 2004). The second component is *impression construction* which involves the processes that determine which images people want to portray (Martin-Ginis & Leary, 2004). This two-component model takes into account both situational and dispositional factors that may determine whether people choose to manage

their impressions (impression motivation) and what type of image they present (impression construction). These two components will now be described in more detail.

### *Impression Motivation*

There are three main situational factors that determine *impression motivation* during social interactions: the goal-relevance of impressions, the value of desired outcomes, and the discrepancy between one's desired and current social image (Leary & Kowalski, 1990). In addition, several dispositional factors influence impression motivation (Martin-Ginis & Leary, 2004). Each of these factors will be now be explained.

*Situational impression motivation factors.* The first situational factor that influences impression motivation is whether the desired impression can help people to achieve desired goals. For example, impression management can help with goals to maintain self-esteem, achieve social rewards, and construct identity. Therefore, if a situation is relevant to meeting such goals, impression motivation would likely increase. There are several factors that determine this goal-relevance: publicity, dependency on the target, and future contact (Leary & Kowalski, 1990). For example, the more public that one's behavior is, the more likely that impression management will take place because of the concern for how that behavior appears to others. Arkin, Appelman, and Burger (1980) found that participants with high social anxiety presented themselves as much more modest when they were in a condition in which they thought that they were going to be evaluated by a committee as opposed to a condition in which participants were informed that only the experimenter would be present. Also, a series of studies have shown that when people are not held accountable (because their identity would be unknown), they self-enhance more by giving themselves better grades on tasks. For example, participants

gave themselves better grades on a task when they were in a condition in which they thought their information would be sent to a scoring center where they would not be identified, as opposed to the condition in which an “expert” would be grading them in person (Sedikides & Herbst, 2002; Sedikides, Herbst, & Hardin, 2002). Therefore, in the non-public condition (scoring center condition), people were less concerned about appearing a “self-enhancer” by giving oneself a positive grade regardless of actual task performance. If people were concerned about managing their impressions (as they were in the “expert” scoring condition), they would likely give themselves a grade that was more reflective of their actual score because then they would not appear as a “self-enhancer” to others, which is generally a negative behavior.

In addition, when people depend on others for important outcomes (e.g., a paycheck) they will be more motivated to impression manage. For example, when participants were given hypothetical scenarios involving impressing either a boss, stranger, or friend to gain rewards or benefits, they ingratiated the hypothetical boss more than the stranger or friend (Bohra & Pandey, 1984). This is likely because the boss controlled important outcomes such as job retention and pay.

Lastly, if people believe that they will have future contact with an individual, their impression becomes more relevant. Gergen and Wishnov (1965) found that people who anticipated future interaction with a partner in an experiment changed their self-presentation in some cases to match the information they had about that partner. For example, participants were matched with a partner who was either self-centered, self-derogating, or who evaluated herself in an average fashion. Further, half of these participants were assigned to a condition in which they thought they would interact with

the partner in the future. Participants then rated themselves on several dimensions that would be sent to their partner. As compared to a control condition, participants in the future interaction condition who had a self-centered partner became more positive in their self-ratings, and a self-derogating partner caused participants to emphasize more negative self-characteristics about themselves.

Another example of the role of future interaction comes from a study investigating compliance to make charitable donations. Abrahams and Bell (1994) found participants in an anticipated future interaction condition to have elevated impression management concerns related to making donations. Further, Kelly and Rodriguez (2006) found that participants who believed that a tape of them behaving in an extroverted way would be viewed in the future later behaved in a more extroverted way than participants who believed that a video of them behaving in an introverted way would be viewed. These studies suggest that self-presentational behaviors may be internalized due to publicly committing the self to a certain identity.

A second situational factor that influences impression motivation is whether the goal of the impression management is highly valued or desired (Leary & Kowalski, 1990). For example, a graduate school applicant will be more motivated to manage his or her impressions during the interview process if the graduate program is highly desirable. Further, if the desired outcome is scarce (e.g., if there is only one spot in the graduate program), impression motivation increases. For example, in one study, participants were in a hypothetical job interview and assigned to one of two conditions: non-competitive (more jobs than applicants could fill) or competitive (only enough jobs for half of the applicants). It was found that those in the competitive condition reported that they were

more likely to conform to values, attitudes, and opinions of the interview review board in order to ingratiate them in hopes of getting the job (Pandey & Rastogi, 1979). Another study found that self-presentational efforts increased when situations were manipulated to appear important and when the goal to make a competent impression was salient (Tyler & Feldman, 2004).

There are several other situational variables that may determine the value of the desired goal. For example, Schlenker (1980) suggests that people are also motivated to impression manage to people who are powerful, of high status, attractive, or likable because these types of targets may be more likely to satisfy some of the functional goals described earlier (e.g., self-esteem enhancement).

The third situational factor related to impression motivation is when there is a discrepancy between a person's desired image (i.e., the image they want to create) and their current image (i.e., the image that they perceive others have of them; Leary & Kowalski, 1990). Impression motivation will be higher if there is a discrepancy between the desired and current image. For example, in Baumeister and Jones (1979), participants received bogus personality feedback and then some of the participants were told that this feedback would be made public. For the participants in the public condition, this created a discrepancy between their desired image (having a positive personality) and their current image (having a negative personality). Results suggested that participants compensated for the negative personality feedback by enhancing other personality traits to the experimenter only when they thought that their personality feedback was made public. Participants did not show this bias when they thought that their personality information remained private (Baumeister & Jones, 1978). Further, another study showed

that participants who had been asked to do an embarrassing task later complied with a request for help in order to repair the negative image that they had presented during the embarrassing acts (Apsler, 1975).

*Dispositional impression motivation factors.* Several dispositional factors have been implicated in impression motivation. First, public self-consciousness has been highly related to impression monitoring in that those who are high in public self-consciousness are more likely to monitor how they are being viewed by others (Reno & Kenny, 1992). Impression monitoring has to do with the mere monitoring of how one is being perceived and evaluated by other. Therefore, before any type of self-presentational motivation or construction begins, people must simply monitor their interactions with others (Leary, 1995) and public self-consciousness is related to this process. Related to self-presentation motivation, Tunnell (1984) found that participants high in public self-consciousness reported greater variability in their self-presentations than did those low in public self-consciousness. Further, Doherty and Schlenker (1991) found that those who were high in public self-consciousness and low in private self-consciousness (“true publics”) were most likely to engage in patterns of self-presentation.

Self-monitoring is probably the individual difference factor most linked to self-presentation (Leary, 1995). Low self-monitors are not as sensitive to social cues, are not as capable of controlling the impressions others form of them, and they manage their impressions less often than high self-monitors (Snyder, 1974). High self-monitors are sensitive to cues about normative behavior, and have the ability to adjust their behavior appropriately (Snyder, 1974). For example, Klein, Snyder, and Livingston (2004) found that high self-monitors expressed more prejudice toward homosexuals when the audience

was perceived by them to be more tolerant of these views than when they perceived the audience to be non-tolerant to prejudice against homosexuals. Low self-monitors, on the other hand, were not affected by the perceived attitude of the audience. Further, in a daily diary study, Nezlek and Leary (2002) found that self-monitoring contributed to participant's self-presentational motives in everyday social encounters. Also, Webb, Marsh, Schneiderman, and Davis (1989) found that high self-monitors were more likely to be induced into a state of public self-awareness that is conducive to impression management than low self-monitors.

Fear of negative evaluation is another dispositional factor linked to impression motivation, particularly because it is related to the "value of the goal" factor in impression motivation discussed earlier. In particular, it relates to the value of social approval, because people generally want to be evaluated positively and accepted by others (Leary, 1995). People who score high on this construct tend to avoid behavior that will cause them to be viewed unfavorably (Leary, 1983). For example, Thornton et al. (2006) found that those high in fear of negative evaluation were more likely to impression manage by using tactics such as "playing dumb" or being a "know it all." Further, Nezlek and Leary (2002) found that fear of negative evaluation contributed to the finding that participants who were motivated to manage their impressions were more likely to think more about the impressions that others have of them, and to think more about their desires to be seen as likeable and attractive.

### *Impression Construction*

Once a person becomes motivated to impression manage, there are several factors that contribute to what kind of impression is made. A wide variety of ways to create an

impression exist (e.g., through showing personal attributes, attitudes, moods, roles, interests, beliefs; Leary & Kowalski, 1990). According to the two-component model of impression management, there are five main factors that determine *impression content* (Martin-Ginis & Leary, 2004): (a) Role constraints and norms, (b) target values, (c) current social image (d) the self-concept and (e) desired identity.

*Situational factors in impression construction.* Roles determine both how people should behave, as well as what kind of person they are and what personal characteristics they have (Leary, 1995). Role constraints refer to the expectations that people have about certain social roles (Leary & Kowalski, 1990). Thus, holding a certain role would determine certain self-presentations. For example, a college student would act differently than a professor because of the roles that they hold. A study of leadership styles demonstrated this idea (Leary, Robertson, Barnes, & Miller, 1986). Some group leaders were told that a task-oriented approach would work better to reach the goals of a group task, while others were told that a relationship-oriented approach would be more effective. Upon observation, it was found that group leaders matched the images that they presented to the leadership role that they were told would be more effective (Leary et al., 1986). For example, group leaders who were told that a relationship-oriented interaction style would create the most effective group performance conveyed a relationship-oriented image of themselves to their group.

Both broad social norms that apply in a wide variety of settings as well as context-specific social norms may determine the content of self-presentations. Social norms are unspoken or documented rules that indicate how people are expected to behave (Baron, Byrne, & Branscombe, 2006). For example, Gergen and Wishnov (1965) found

that people matched their self-disclosure to that of their interaction partners; people responded to others' modest self-presentation with equally modest self-presentations. In addition, two studies of children found that prevailing social norms affected children's concern regarding self-presentational intergroup attitudes about prejudice (Rutland, Cameron, Milne, & McGeorge, 2005).

Gender roles and norms can be particularly strong in determining self-presentational behavior. For example, self-presentational norms specify that men and women should convey different impressions such that people often think that men should appear dominant and assertive but women should not (Leary, 1995). Deaux and Major (1987) suggest that gender-related behaviors are influenced by expectations of perceivers, targets, and situational cues during interactions. Therefore, gender is a component of ongoing interactions and depends on context rather than more stable patterns of male and female behavior. As such, gender may particularly determine impression content either by an attempt to adhere to gender norms or due to interactions that call for certain displays of gender-related behavior. For example, Pliner and Chaiken (1990) found that female participants, who were led to believe that they had behaved in a way that displayed an "unfeminine" identity image in front of a male, later ate less in his presence in order to correct this image.

Significant others in the environment may affect the images that people present (Kowalski & Leary, 1990). For example, being cool or a risk-taker may be an important value to adolescent targets, whereas being responsible may be an important image to adult targets (Martin-Ginis & Leary, 2004). College students have been found to want to make impressions such as appearing friendly, fun, outgoing, and attractive; however they

do not want to make impressions that would make them appear boring, stupid, superficial, or mean (Leary, 1995). In general, people will manage their impressions in order to seem similar to a salient target group. Not only do images valued by general culture matter, but also specific targets in specific situations matter. For example, in one study, women being interviewed by men were told ahead of time that the male interviewer either held traditional views of females or non-traditional views of females. Results showed that the women presented themselves in a more traditionally feminine manner when they thought that the male interviewer held traditional beliefs about women (von Baeyer, Sherk, & Zanna, 1981).

A final situational factor that determines impression construction is one's current or potential social image. In general, how people think they are currently viewed by others and how they think others may perceive them at a later time are going to determine how the impression is constructed (Leary, 1995). This view might have to do with information that people have about the person already or information that they are likely to get in the future. For example, Schlenker (1975) gave subjects bogus personality feedback and told some of them that others were aware of this information and some that this information was private. Participants in this study presented themselves consistently with the personality feedback when they were in the public condition, however, participants in the private condition presented themselves positively regardless of their personality feedback. Therefore, the knowledge that others had about the participant determined the content of their self-presentation.

*Dispositional factors in impression construction.* The self-concept is a dispositional factor that determines the content of an image presented. Leary and

Kowalski (1990) have identified three main processes that explain the self-concept's relationship to self-presentation. First, people value certain aspects of themselves and may show these valued aspects of themselves at strategic times in order to convey certain impressions (Leary & Kowalski, 1990). Second, the self-concept serves to constrain the type of impression to be made because it indicates how reasonable and realistic it is to convey a certain impression that remains within the self-concepts realm (e.g., Schlenker, 1980). Swann (1990) suggests that self-enhancement and self-consistency are both important motives of human behavior and that people want to confirm their self-views in order to perceive their world as a predictable/controllable place. Kelly and Rodriguez (2006) suggest that self-presentational behaviors may be internalized due to publicly committing the self to a certain identity based on their finding that people behaved in a more extroverted manner when they thought that an earlier video of them behaving in an extroverted manner would be viewed. These findings suggest that people generally want their self-concept and behavior to be consistent.

Third, people generally are not comfortable with lying and deceiving others and because of this they do not make claims about themselves that are not at least somewhat in line with their self-concepts (Leary & Kowalski, 1990; Schlenker, 1980).

The final dispositional factor that determines impression construction is a person's desired identity (Leary & Kowalski, 1990). People tend to convey impressions that are more likely to be in the direction of what they desire their identity to be; people can develop their identities while remaining somewhat consistent with their current images (Baumeister, 1982). People also do so in order to distance themselves from undesired identity images (Pin & Turndorf, 1990).

Markus and Nurius (1986) suggest that possible selves are people's ideas of what they might become, what they would like to become, and what they are afraid of becoming. Possible selves function as an incentive for future behavior and they allow for someone to evaluate the current view of the self. According to Markus and Nurius, possible selves, in addition to current selves, can affect decision making by guiding decisions that are made. An example of this comes from a study in which naturalistic observations and interviews with users of a dating website were conducted (Ellison, Heino, & Gibbs, 2006). Participants in this study reported that they attempted to represent themselves accurately during interactions and in their dating profiles. However, participants also suggested that on one hand they felt they needed to present an accurate self-representation and on the other had they needed to project of more desirable self. Here then, they were presenting an ideal self (potential, future version of self), describing themselves as they wanted to be. Presenting the ideal self seemed to reconcile pressures they felt between giving an accurate and completely inaccurate account of themselves. It appears then that impression management tends to be an interaction between the self-concept and the desired and undesired identity images one strives for (Leary, 2001).

In summary, dispositional and situational impression motivation and construction components are influenced by many factors and both appear to be important in determining self-presentational behavior. The goal of the current study is to incorporate both components in the explanation of alcohol use behavior. Specifically, this study will investigate dispositional impression motivation (self-consciousness, self-monitoring, and fear of negative evaluation) and construction (self-concept and desired identity) as well as

situational impression motivation (goal value, relevance, and public image) and construction factors (role constraints and social norms).

### *Impression Management among Young Adults and Adolescents*

While self-presentational motives can be present at many times throughout the lifespan (e.g., Aloise-Young, 1993; Martin, Leary, & Rejeski, 2000), young adults and adolescents may be especially susceptible to impression management concerns. While not much research has investigated age differences in impression motivation and construction processes, it is likely that adolescents and young adults may be more likely to behave in a certain way because of the image associated with certain behaviors (Chassin, Tetzloff, & Hershey, 1985; Martin, Leary, & O'Brien, 2001). In particular, the college setting and especially the first semester of college may cause an increase in self-presentational concerns (Martin & Leary, 2001). For example, research has shown that young people are more motivated to impression-manage when they are interacting with unfamiliar people during interpersonal situations as opposed to people they are familiar with (Leary et al., 1994). Further, Pledgler (1992) found that self-monitoring behavior increased from early to late adolescence. The freshman year of college can be a time for young adults to make new friends, live in new environments with new people, and form new friendship and peer networks. Many social interactions during the first semester of college will be with new acquaintances. Thus, impression management processes may be particularly salient during this time. Therefore, the current study focuses on the developmental time period of young adulthood, specifically during the freshman year of college.

### *Health Risk and Self-Presentation*

Health risk behaviors and general risk-taking behaviors have been linked to impression management processes (for reviews see Leary et al., 1994; Martin-Ginis & Leary, 2004). Leary et al. (1994) suggest that substance use can serve self-presentational goals by conveying certain desired images to peers, to reduce anxiety in interpersonal situations, to self-handicap, or to secondarily affect ones' image (e.g., smoking to lose weight to appear more attractive). Health risk behavior has been linked to both impression motivation as well as construction.

Martin and Leary (2001) found relationships between trait measures of impression motivation and the number of health risk behaviors reported by college freshman. Specifically, they found those high in public self-consciousness, fear of negative evaluation, and being concerned about impressing people at college reported engaging in more risk behaviors (e.g., driving recklessly, performing dangerous stunts). Further, Martin et al. (2001) found that both trait and state self-presentational concerns were positively correlated with Irish teenagers' endorsement of self-presentational motives for certain health practices-most notably dieting (possibly excessive dieting) among girls. In addition, self-monitoring has been linked to risk behaviors. For example, Bell, Schoenrock, and O'Neal (2000) found that self-monitoring was positively related to a range of risk behaviors (e.g., substance use, sexual risk). Also, Mack, Strong, Kowalski, and Crocker (2007) found that self-presentation motivation is particularly salient for individuals at-risk or in treatment for eating disordered behavior.

Related to drug use, Wolfe, Lennox, and Cutler (1986) showed that college students who used drugs because of the influence of others scored high on a measure of concern for appropriateness, which is related to self-monitoring. The concern for

appropriateness is a measure of social anxiety. Shute (1975) found that college students conformed to the expressed attitudes of their peers regarding drugs in a lab setting, even if they were strangers, suggesting that these students picked up on the drug use “norm” within their peer group. Finally, it has been found that the best predictors of engaging in behaviors that increase one’s risk for skin cancer involve concerns with others’ impressions generally or with one’s appearance specifically (Leary & Jones, 1993).

In a test of situational self-presentation motivation, Martin and Leary (1999) led half of their participants to believe that a confederate had seen a negative personality profile of them indicating that they were overly cautious and uptight, while the other half were given personality feedback showing them to be average on these personality traits. Participants then engaged in a taste test of bad tasting drinks and a confederate offered them a used bottle of water to drink out of (considered unhealthy to drink because of the risk of communicable diseases). Some of the participants were challenged by the confederate (e.g., if you aren’t worried about drinking after me) while others were not. They found that participants were more likely to drink from the bottle (a health risk) when they received the negative personality feedback and a challenge. Therefore, participants behaved in a risky manner due to an image discrepancy and a challenge from a peer.

Martin and Leary (2001) found that college students who wanted others to see them as cool/laid back were more likely to drink, smoke, use drugs, drive while impaired, and ride with an impaired driver for self-presentational reasons. In addition, Martin and Leary found that wanting to be seen as a brave risk-taker was related to dangerous driving, stunts, lifting excessive weight in the gym, drug use and fighting. Also related to

impression construction, Norman and Tedeschi (1989) found that participants who wanted to be “cool” and saw smoking as “cool” had more positive attitudes about smoking and more intentions to smoke.

Finally, using a daily diary methodology, O’Grady, Harman, Gleason, and Wilson (2007) investigated impression construction among college students over a three week period. It was found that wanting to be seen as attractive (physically and sexually) during social interactions was related to more daily alcohol use and a stronger appeal of other risk behaviors (e.g., having unprotected sex) than other types of possible impressions (e.g., likeable, mature). Therefore, certain impressions seem to be related to risk behavior, however, there is not much known about how more general impression motivation and construction processes work.

#### *Alcohol and Self-Presentation*

Alcohol use has specifically been implicated as a self-presentational tactic (e.g., Martin & Leary, 2001). Alcohol may be used as a self-presentational tactic because it could it could facilitate social bonding during initial group formation and increase peer acceptance by conveying desired images like being seen as fun and cool (e.g., Kirchner, Sayette, Cohn, Moreland, & Levine, 2006; Leary et al., 1994). This could explain why using alcohol can help to serve important intra- and inter-personal goals and lead to it being an important self-presentational tactic. For example, out of ten health risk behaviors examined among college students, Martin and Leary (2001) found that alcohol use was the most commonly reported for self-presentational reasons. In this study, participants were given a series of scales related to self-presentation and then at a later session at the end of their first semester of college, they were asked about health risk

behaviors they were involved in for self-presentational reasons during the semester. They were also asked how concerned they had been with trying to make impressions on new people they had met and how much they liked the people that they met in college. The majority of participants indicated that they had used alcohol for self-presentational reasons as opposed to other health risk behaviors. The main desired impressions associated with alcohol use in Martin and Leary's study were fun/social, cool/laid back, and brave/risk-taker.

In addition, a study of personal strivings investigated how drinking behavior among college students related to the goals of achievement, affiliation, health and self-presentation (Simons, Christopher, & Mclaury, 2004). Participants in this study listed 10 personal strivings they had and 30 days later completed questions about alcohol use and problems during the past 30 days. In this study, self-presentation was defined as "concerns related to evaluations by others, trying to portray certain emotional states, and appearance." Simons et al. found that participants endorsed self-presentational personal strivings 27% of the time. They also found that participants who endorsed self-presentational personal strivings reported significantly more alcohol-related problems when compared to those who did not endorse self-presentation as a striving.

Another study examined the conflicting results related to self-esteem, introversion and loneliness (combined, these were labeled "diffidence") by investigating the role that alcohol expectancies and self-presentation play in the relationship between these factors (Korn & Maggs, 2004). Related to self-presentation, they suggested that negative alcohol expectancies reflected a protective self-presentation style (i.e., avoidance of social disapproval) and positive alcohol expectancies reflected a more acquisitive self-

presentational style (i.e., desire to gain social approval; Korn & Maggs, 2004). They found that a negative relationship between diffidence and alcohol use appeared when self-presentational expectancies were statistically controlled. More diffident participants expected alcohol to help them achieve a more fun and exciting social image. Therefore, self-presentation may play an important role in clarifying relationships between self-esteem and other self-processes in alcohol use.

Also related to alcohol and self-presentation, in a cross-sectional survey, Sharp and Getz (1996) found that among college students, alcohol use may serve the function of impression management and can be influenced by a person's level of self-monitoring. For example, they found that when compared to those who hadn't used alcohol, users of alcohol scored higher in self-monitoring and perceived success in impression management. Therefore, alcohol may cause the user to perceive that they had been successful in their attempt to display a certain image and this may prompt further alcohol use as self-presentational behavior.

In addition, Chassin, Tetzloff, and Hershey (1985) suggest that social-image factors may be important for adolescent decision-making. They found that participants who used more alcohol saw themselves as more similar to the drinker image. In addition, males who saw their ideal selves as more similar to a drinking image were more involved with alcohol. Further, participants who saw their friends admiring the drinking image were more likely to intend to drink in the future suggesting that if drinking behaviors fit the kind of person they are or would like to be, adolescents may be more motivated to drink.

Alcohol use has also been related to dispositional impression motivation factors. For example, public self-consciousness and self-monitoring have been linked to alcohol use (Pluddemann, Theron, & Steel, 1999; Sharp & Getz, 1996; for exception see Martin et al., 2001). However, in a longitudinal study, Park, Sher, and Krull (2006) found that only members of Greek organizations (as opposed to all college students) were influenced by self-consciousness. For example, private self-consciousness was related to increased drinking among sorority members. Also, as both private and public self-consciousness increased among fraternity members, drinking decreased. Therefore, the role of self-consciousness among college students still needs to be clearly determined because there appear to be conflicting findings in this area.

Based on the available literature, it appears that the two-component theory of impression management (Leary & Kowalski, 1990) can be successfully applied to alcohol use, but to date this has not been done. While there is clear evidence that impression management and health risk behavior (especially alcohol use) are related, none of the previous studies mentioned have been specifically designed to differentiate between impression construction and impression motivation. This is problematic because these two factors, while related, are separate, leaving previous research findings related to impression management and alcohol rather fragmented. It is unclear how the two components of impression management may contribute to alcohol use both separately and together. By studying these two processes as independent, the two-component model of impression management has the potential to integrate and clarify the findings that link self-presentational processes to alcohol use. There currently are no experimental or

longitudinal studies that have specifically used this model to investigate alcohol use as a self-presentational tactic.

### *The Current Studies*

The overarching goal of this research was to combine several of the main explanations for college drinking behavior into one larger framework using self-presentation theory. For example, self-presentation theory has the potential to combine earlier research on alcohol norms, alcohol expectancies, peer pressure, and personality/individual differences into one overarching framework of underage drinking behavior. It is a powerful model because it takes into account both dispositional and situational factors (e.g., indirect social pressures), which is an approach that is generally lacking in the literature.

The two-component model applied to alcohol use behavior, which guided this study, is presented in Figure 1. This model has not been previously applied specifically to the study of alcohol use behaviors. As noted in Figure 1, the motivation components are not specific to alcohol use; they are conceptualized as general motivational processes. However, for this study, the construction factors were posited to be specific to alcohol use. Dispositional impression construction is made up of factors related to desired identity and self-concept. When applied to alcohol use, it is likely that alcohol expectancies represent a desired identity because they are conceptualized as the way someone thinks that alcohol make people think and behave. In addition, desired identity and self-concept can be represented by how someone views the typical heavy drinker (i.e., an alcohol prototype; Gerrard et al., 2008). If someone views the typical heavy drinker as positive, then they may desire to be more like them or their self-concept may

be tied to heavy drinking in order to create this image of themselves. Finally, current drinking patterns may provide information about how important drinking is to someone's self-concept and desired identity; if they are heavy drinkers, this may be an important part of their self-concept. In particular, if students report expecting to drink heavily in social situations (e.g., at a party), it could be that drinking is important for their social image and self-concept. In the situational alcohol construction piece of the two-component model in Figure 1, the focus is on norms and roles. Alcohol norms are recognized in the literature as a cause of alcohol use behavior (Perkins, 2003). Therefore, this situational part of the two-component model was guided by the idea that when there are strong alcohol norms, college students attempt to conform to this by drinking to meet a higher norm.

While gender has been an important predictor in alcohol use behavior because men typically drink more than women, college women have steadily increased their consumption over the past several decades (Johnston et al., 2006). In particular, longitudinal studies suggest there has been a decrease in the difference between men and women's rates of heavy episodic drinking (O'Malley & Johnston, 2002). For these reasons, gender will not be included as a variable in this investigation. Further, any potential differences in alcohol use that may be present between men and women will be accounted for by the inclusion of several individual differences variables related to drinking attitudes and patterns.

Because previous research suggests a link between alcohol use and self-presentation, two studies were conducted to (a) identify causal relationships among self-presentational processes and alcohol using an experimental method, (b) investigate how

self-presentational processes operate in more natural settings using a daily diary methodology and (c) investigate dispositional factors and alcohol use patterns (e.g., moderate vs. heavy) that may put students at risk for self-presentational alcohol use. Two studies were conducted to investigate self-presentation and alcohol-related behavior: an experimental study (Study 1) and a daily process study (Study 2). In study one, the following research questions and hypotheses were posited:

**Research Question 1:** Does high situational self-presentation motivation along with strong situational alcohol construction cues (i.e., alcohol norms) cause alcohol self-presentation?

**Hypothesis 1:** In this study, alcohol construction cues were operationalized as the presence of strong alcohol-related norms. An interaction was expected such that students in the high impression motivation (IM)/alcohol norm condition would be more likely to be alcohol self-presenters as compared to students in the low IM/Alcohol Norm, low IM/Alcohol Control, and high IM/Alcohol Control conditions. See Figure 2 for a depiction of the expected results.

**Research Question 1a:** What impression motivation (e.g., fear of negative evaluation) and alcohol impression construction (e.g., alcohol expectancies) dispositional factors are related to the likelihood of alcohol self-presentation? Do these individual difference factors moderate the relationship between situational impression management factors (i.e., IM and alcohol norms) and alcohol self-presentation?

**Hypothesis 1a:** First, based on previous research, it was expected that there would be main effects present such that as self-consciousness, self-monitoring, and fear of negative evaluation increase, it will be more likely that alcohol self-

presentation would occur. Second, it was expected that main effects would be present for positive alcohol expectancies, a positive view of typical drinkers, and the likelihood of heavy drinking in social contexts such that as these increase, alcohol-related self-presentation would increase.

In addition, all possible two-way interactions between the situational impression management conditions (IM and alcohol norms) and the above individual differences factors were investigated. For example, was there a difference in alcohol self-presentation between those with high and low self-monitoring who were in the alcohol norms condition? Three-way interactions between IM, alcohol norms and individual differences factors were also investigated (e.g., IM x alcohol norms x self-monitoring).

**Research Question 2:** Do drinking patterns and the frequency of alcohol-related consequences have a main effect on alcohol self-presentation? Do they moderate the relationship between the situational impression management factors (i.e., IM and alcohol norms) and alcohol self-presentation?

**Hypothesis 2:** It was hypothesized that there would be a main effect for alcohol-related consequences and drinking patterns such that as these factors increase, alcohol self-presentation would be more likely.

In addition, drinking patterns and consequences were investigated as a moderator of the relation between the situational impression management factors (i.e., IM and alcohol norms) and alcohol self-presentation.

## CHAPTER II

### STUDY 1

#### METHOD

##### *Design and Procedure*

Study 1 utilized a 2 (Impression Motivation (IM): High vs. Low) X 2 (Alcohol: Norm vs. Control) factorial design that was designed to investigate research questions 1, 1a, and 2.

Participants first completed a series of measures investigating past alcohol use behaviors, dispositional self-presentation motivation, and personality using an on-line survey. One week later, they reported to a social psychology lab where they were randomly assigned to one of the four experimental conditions that were created by fully crossing the IM and alcohol conditions. Having these two separate sessions was an attempt to reduce any carryover effects that completing the personality and alcohol use measures may have on the experimental manipulations and dependent measure. Further, the initial “pre-screening” session was integral to the believability of the impression motivation experimental manipulation. Participants recorded a unique identifying code during each session so that their data from both sessions could be linked while remaining anonymous. Upon arrival to the lab, participants were seated at a private computer terminal and received the induction of impression motivation through the instructions and information they were given about the study via the computer (discussed below). They also viewed internet profiles that were meant to create the alcohol norms conditions

(discussed below). Participants then completed several manipulation check questions and the dependent measure, which consisted of a internet profile that participants created about themselves. Finally, they were thoroughly debriefed and thanked for their time.

### *Participants*

Freshmen students under the age of 21 ( $n = 288$ ) were recruited from undergraduate psychology courses and received course credit for participating. Of the 288 students who completed the online survey, 248 (86%) attended the lab session about 1 week later, however 16 could not be matched to their online data because they entered a different identifying number during the lab session, leaving the final sample for data analysis at 232 (57 men and 175 women).

The 56 participants who were excluded from analysis did not differ from the included participants by age, gender, or ethnicity as evidenced by  $t$ -test and Chi-Square analysis (all  $ps < .05$ ). In addition,  $t$ -tests revealed that excluded participants did not differ by the individual differences variables investigated in this study. However, they did differ on alcohol use patterns and consequences; participants who were excluded ( $M = 8.01$ ) were significantly more likely to drink more and have more drinking-related consequences than students who were included in analysis ( $M = 6.22$ ). See Table 1 for a presentation of all  $t$ -test results.

All participants were unmarried, and most were 18 or 19 years old (92%). The majority of students identified their race as White (90.1%), with the remaining identifying as Black (4.7%), Asian (3.9%) or American Indian/Alaskan Native (1.3%). In addition, 7.3% of all participants also identified as Hispanic/Latino. Most participants

resided in an on-campus residence hall (83.2%), were not natives of Fort Collins (90.9%), and were not members of a fraternity/sorority (91.4%) or athletics team (91.8%).

A minority of students reported that they never drink alcohol (19.4%), with the remaining indicating that they drink alcohol less than monthly (26.3%), monthly (25%), weekly (28.4%), or daily/almost daily (.9%). Finally, 42% of students reported that they never drink heavily (five or more drinks on one drinking occasion), while 31.9% reported that they drink heavily less than monthly, 18.1% did so monthly, and 7.8% reported heavy drinking weekly.

### *Manipulations*

*High impression motivation condition.* Using the core tenets of the two-component model of impression management (Leary & Kowalski, 1990), the high impression motivation condition was induced by creating a discrepancy between desired and current self-image, inducing high goal-relevance, and inducing high desired value, each of which is discussed in detail below.

In order to create an undesirable image to induce image discrepancy, participants were given personality feedback indicating that they avoid risky situations and that they are overly cautious, as previous research indicates that this is an unfavorable image for college students (e.g., Leary, 1995). Prior to beginning the experiment, the researcher explained to the participants that a personality profile had been generated for them based on the on-line screening session they participated in during the previous week. The experimenter also asked them to be sure that they read the personality profile carefully and understood it when it was presented to them. Participants then viewed their “personality profile” individually on a computer.

The profile in this condition indicated that participants were average on the dimensions of agreeableness, sociability, and self-awareness and atypically high on the dimensions of cautiousness, neuroticism, and obsessiveness. The following statement interpreted the results for them: “Atypically high scores on the dimensions of cautiousness, neuroticism, and obsessiveness are consistent with the personality profile of individuals who avoid risky situations and decisions and who tend to worry unnecessarily over small concerns.” They also viewed a graph that compared their results to the results of “average” peers. The bogus personality profile and accompanying interpretation statements were based on Martin and Leary’s (1999) image-concern conditions and reflect the idea that people are motivated to impression-manage when they believe that others have an undesired impression of them.

In addition, in order to create high goal-relevance, participants were informed via the computer that, as part of the study, the experimenters assigned them to an Internet group and that their personality profile information was made *immediately* available to the other members of this Internet group. They were also informed that they would later have a chance to create an online profile to introduce themselves to the group members. This manipulation is based on Romero-Canyas and Downey (2005) in which rejection sensitivity was investigated as a moderator of self-presentation. Therefore, participants’ profile (discussed later; serves as the dependent variable) and their bogus personality information became “public.” Previous research suggests that the more public one’s behavior, the more likely one is to be concerned with how it appears to others and the more motivated one will be to impression manage (Leary & Kowalski, 1990). Further, participants were told that the rest of their Internet group members would be using the

profiles that they created to “determine the amount of extra credit they will receive for participating in this study in addition to the credit they were promised they would receive.” This manipulation created additional goal-relevance because it created a situation in which the participant was dependent on the target (i.e., the “Internet group”) for a valued outcome. It has been previously shown that people are more motivated to engage in impression management when they expect future contact with the target and when they are dependent on them for valued outcomes (Leary & Kowalski, 1990).

Finally, to create a high desired value, participants were told that only a few people would be chosen for “extra credit” by their Internet group. This creates a high desired-value because impression management tends to be higher when desired resources are scarce (Leary & Kowalski, 1990). In summary, this experimental design combines the three major motivators of impression management to create a strong desire to manage one’s impression.

*Low impression motivation condition.* The low impression motivation condition used a design similar to the high impression motivation condition by including the three impression motivation factors described above; however, it was designed to create a low need to manage impressions.

First, unlike the profile in the high impression motivation condition, personality feedback created an average and somewhat desirable personality image, therefore reducing the motivation for participants to manage the impression that the “targets” had of them. It indicated that participants were average on all the dimensions listed above in the high discrepancy profile. The following statement was included, “Average scores on all dimensions are consistent with the personality profile of individuals who are well

adjusted and neither excessive nor deficient on the relevant attributes.” A visual graph was also presented for participants to view after receiving their personality feedback to make the manipulation more believable.

As in the high impression motivation group, participants in the low condition were told that they were assigned to an Internet group as part of the study and that they would later be able to create a profile for the group (Romero-Canyas & Downey, 2005), but, to create low goal-relevance, participants were reminded that their profile and their personality information was NOT shared with anyone besides the experimenters and that their identity would not be able to be determined from any information given during the study. Therefore, this kept their behavior in a private realm, rather than a public realm.

In addition, to create a low desired-value (and additional low goal-relevance), participants were reminded that they would receive credit for the study no matter how they answered the rest of the questions and that everyone would receive the same amount of credit, therefore participants were not be dependent on the targets for the desired credit, nor were the resources (extra credit in this case) described as scarce.

*Pilot study one.* To determine whether this low/high motivation manipulation would be believable to participants because it involved quite a bit of deception, a pilot study that included 30 undergraduate students was conducted to test the high impression motivation condition. After being presented with the manipulation (as described above), they were asked how believable the manipulation was. Overall, participants felt the manipulation was fairly believable ( $M = 5$  on a scale from 1-7), and no participants answered that it was extremely unbelievable (1 on the scale). They were also asked how motivated they would be to make a positive impression on their Internet group on a scale

from 1 (*extremely unmotivated*) to 7 (*extremely motivated*) and the mean score indicated that participants were fairly motivated to manage their impressions ( $M = 4.76$ ,  $SD = 1.61$ , Mode = 5). No participants answered that they would be extremely unmotivated (1 on the scale).

*Alcohol norm manipulation.* The construction of impressions is reliant on several factors, including situational norms, targets' situation specific values, and roles (Leary, 1995). People often tailor their self-presentations to comply with situational norms and the interactions target's values (in this case, the targets were the peer Internet group). The perceived role of the college student often includes alcohol use, therefore this is not an atypical role or behavior that would conflict with what college students perceive as part of the "typical" college student image (Perkins, 2002). To make alcohol a salient norm in this situation, an alcohol norm condition was created in which participants viewed six (3 male and 3 female) sample "profiles" of their "Internet group." Participants in the alcohol norm condition had Internet group members who all endorsed alcohol use (i.e., discussed alcohol in their profiles, and included alcohol-related pictures) to make it a norm and target value for someone who was similar to them (e.g., freshman college student). The presentation of the sample profiles was timed such that each profile was presented for 30 seconds.

In the alcohol norm *control* condition, participants viewed the same six Internet profiles that were in the alcohol norm condition; however, the profiles didn't mention anything about alcohol. See Figure 3 for an example of alcohol norm and control condition profiles.

*Pilot study two.* The Internet profiles were created by viewing actual MySpace.com and Facebook.com Internet profiles of students who attended the university where the study was conducted and modeling the content of the profiles based on them. Next, a pilot study was conducted which included 28 undergraduate students. Similar to the main study, participants viewed 5 profiles that did or 5 profiles that did not contain alcohol-related information. In this pilot, participants were asked how much they thought the students in each profile drank. Results indicated that participants in the alcohol condition ( $M = 5.20, SD = .56$ ) felt the students in the profiles drank more as compared to the participants in the control condition ( $M = 2.54, SD = .93$ ),  $t(18) = 7.91, p = .000$ . They also were asked how similar they thought the students in the profile were to other college students and their own friends. If participants thought that the students portrayed in the profiles were very unlike other college students/friends, they completed an open-ended question to explain why. The profiles were adjusted based on this feedback in order to make the “students” in each profile as similar to participants as possible.

### *Materials*

*Manipulation checks.* To examine the goal-relevance manipulation, participants were asked whether or not their profile was made immediately public to their Internet group members. For the value manipulation, participants were asked if they had a possibility of earning extra credit, whether it was limited, and whether this was something they desired. In order to determine whether the alcohol norms manipulation was successful, participants were asked if alcohol use was mentioned in the profiles they viewed.

In addition, to determine whether alcohol norms were manipulated successfully, two questions asked how much/often participants felt that alcohol was used among their “peers” in the internet profiles (e.g., How often do you think the students in your Internet group typically consume alcohol?;  $\alpha = .84$ ) and three questions asked about the same among college freshman at their university (e.g., How often do you think CSU freshmen typically get drunk?;  $\alpha = .68$ ). These questions were answered on a 5-point scale in which 1 = *almost every day* and 5 = *less than once monthly*, therefore lower scores indicated more frequent/heavy drinking.

Finally, to determine if impression motivation differed between the high and low impression motivation groups, one question regarding participants’ impression concern was asked (My Internet groups’ opinions of me matter to me, 1 = *strongly disagree*; 7 = *strongly agree*). Finally, a smaller portion of the participants ( $n = 69$ ) were administered the Balanced Inventory of Desirable Responding (BIDR; Paulhus, 1988) to determine if the impression motivation condition affected how desirable participants wanted to appear. Higher scores on this scale indicate wanting to appear more desirable.

*Self-Presentational Profile.* The dependent variable in this study was alcohol self-presentation. Based on Romero-Canyas and Downey (2005) participants were asked to construct a brief profile about themselves that included general background information (e.g., age, hometown), as well as the opportunity to write about themselves in a narrative form. Participants could only write responses that were up to 100 words in order to decrease the variability in response lengths. Four domains of the profile were used to measure alcohol self-presentation: (a) whether participants indicated that they drank alcohol (no = 0 and yes = 1) in the section specifically indicating this, (b) if they

mentioned alcohol in their “About Me” section (one point per mention of alcohol), (c) if they mentioned alcohol in their “General Information” section (one point per mention of alcohol) and (d) whether they included an alcohol-related picture in their profile (could include up to 2 pictures total from a selection of pictures given to them, 1 point was given for each alcohol-related picture chosen).

Two researchers, who were blind to participant condition, coded the narratives from the “general information” and “about me” sections by reading the narratives and documenting the total references to drinking alcohol per narrative. There was excellent agreement between the coders as indicated by inter-rater reliability analysis using the Cohen’s Kappa statistic (“general information” Kappa = 1; “about me” Kappa = .94) and any discrepancies were resolved via discussion.

The dependent variable was then calculated by totaling the alcohol points from all four domains. There was a low range in the total alcohol score from the profiles (0-4) and it was positively skewed with most of those who mentioned alcohol having a score of 1 (56%) or 2 (34%) and only 10% having scores of 3 or 4. Therefore this variable was dichotomized such that 1 = alcohol mentioned ( $n = 134$ ), 0 = no alcohol mentioned ( $n = 98$ ) in the profile.

*Moderator scales.* Dispositional impression motivation measures and alcohol-related measures were investigated as moderators of the relation between impression motivation/construction and alcohol self-presentation in the current study. As mentioned earlier, these scales were completed by participants at least one week prior to coming into the lab for the experiment. The presentation of these moderator scales was

counterbalanced. See Table 2 for the descriptive statistics associated with these scales and the Appendix for all scale items.

The Revised Self-Monitoring Scale (Lennox & Wolfe, 1984), contains 13 items that measure sensitivity to the expressive behavior of others and ability to modify self-presentation and is measured on a 6-point scale (0 = *Strongly Disagree*, 5 = *Strongly Agree*). The total scale was averaged (the highest score was 5, indicating high self-monitoring) and had appropriate internal reliability ( $\alpha = .75$ ).

The Brief Fear of Negative Evaluation scale (Leary, 1983), consists of 12 items (e.g., I am afraid others will not approve of me) that are measured on a 5-point scale (1 = *not at all characteristic of me*, 5 = *extremely characteristic of me*). It has shown good internal reliability ( $\alpha = .90$ ) and test-retest reliability ( $\alpha = .75$ ) in previous research. It also had good reliability in the present study ( $\alpha = .85$ ). The scale is generally used to determine the degree to which people experience apprehension at the thought of being evaluated negatively, and people who score high on this scale tend to behave in ways that assist them in avoiding the prospect of being evaluated unfavorably. The total score can range from 12 - 60, with higher scores indicating more fear of negative evaluation.

Public self-consciousness was measured using the public subscale of the Public and Private Self-Consciousness Scale (Fenigstein, Schneider & Buss, 1975). This scale has shown acceptable internal reliability in previous research ( $\alpha = .84$ ) as well as in this study ( $\alpha = .75$ ). The public self-consciousness subscale has 7 items (e.g., I'm concerned about the way I present myself), and total scores can range from 7 - 35 with higher scores indicating higher public self-consciousness.

Alcohol expectancies were measured using a shortened version of Brown, Christiansen, and Goldman's (1987) Alcohol Expectancies Questionnaire (AEQ). This measure determines the positive expectations that people have about alcohol consumption and has shown acceptable levels of internal consistency ( $\alpha = .84$ ) as well test-retest reliability ( $r = .64$  after 8 weeks) in previous studies. This measure also has shown good construct and predictive validity regarding drinking patterns (Brown et al., 1987). The short version of the AEQ was used in this study, which is a 45-item self-report questionnaire that uses a forced-choice answer format (e.g., "drinking makes the future seem brighter"). The AEQ had good reliability in the current study ( $\alpha = .91$ ). The total scale was averaged, and scores could range from 1 - 4 with higher scores indicating more positive alcohol expectancies.

The Alcohol Use Disorders Identification Test (AUDIT; Saunders, Aasland, Babor, De La Fuente, & Grant, 1993) was used to measure patterns and consequences related to drinking. The AUDIT is a 10-item screening instrument used to identify persons whose patterns of alcohol use may put them at risk for alcohol-related harm (e.g., physical injury). It asks questions related to alcohol consumption, drinking behavior, and alcohol-related problems. The measure detects problems related to alcohol that are less severe than alcohol dependence and alcoholism and measures alcohol-related behavior both in the last year as well as lifetime experience. The range of possible scores on the AUDIT is 0 to 40, and a score of eight or more indicates a strong likelihood of hazardous or harmful alcohol consumption. This measure has been validated in several different countries (Conigrave, Hall, & Saunders, 1995; Saunders et al., 1993) and had good reliability in this study ( $\alpha = .81$ ).

The convivial subscale of the Drinking Contexts Scale (O'Hare, 1997) was used to determine how likely participants were to drink heavily in social contexts. The Drinking Contexts Scale measures the likelihood of excessive drinking across an array of psychological, interpersonal, and situational contexts. Items are rated on a 5-point scale in which the chances that drinking excessively would happen in the circumstances listed (e.g., when I am at a party) are rated as *extremely high* (5) to *extremely low* (1). The 10-item convivial subscale was of interest because the current study is focused on social behavior and this subscale has been associated with problem drinking in social situations. This subscale has shown good internal consistency in previous research ( $\alpha = .93$ ) and in this study ( $\alpha = .94$ ). Total scores can range from 10 - 50, with higher scores indicating a stronger likelihood to drink heavily in social contexts. O'Hare (1997) suggests that this scale differs from the AEQ in that the AEQ is presumed to measure expectancies about the effects of drinking small to moderate amounts of alcohol, while the drinking contexts scale focuses on heavy drinking.

An alcohol prototype scale was used to determine the importance of alcohol use to self-image (Thorton, Gibbons, & Gerrard, 2002). Six questions were asked on a scale from 1 (*not at all*) to 4 (*very*) to determine how the typical drinker is perceived on the following dimensions: cool, smart, popular, good-looking, childish, and dull. The six items were averaged (scores could range from 1-4, with higher scores indicating a more positive view of the typical drinker) and the scale had acceptable internal consistency ( $\alpha = .72$ ).

### *Statistical analysis*

A series of hierarchical logistic regression analyses were used to examine the research questions. Logistic regression was utilized due to the dichotomous nature of the dependent variable (1 = *created an alcohol-related profile*; 0 = *created a non-alcohol-related profile*). The Wald statistic was used to determine the significance of each independent variable within the models. In addition, several indices were used to determine total model fit and improvement, including: Chi-Square for log likelihood difference, the Homer-Lemeshow Test and the Nagelkerke  $R^2$ . Continuous variables were mean centered for all analyses and categorical variables were dummy coded.

*Research question 1.* To determine the role of the situational components of the two-component model of impression management, Model 1 included only the dummy coded manipulated variables and the interaction between them. In the first step, impression motivation (1 = *high*, 0 = *low*) and alcohol norm condition (1 = *norm*, 0 = *control*) were entered; the interaction between the two dummy-coded variables was entered in the second step.

*Research question 1a.* Model 2 was constructed by adding the dispositional variables of interest to the above simplified model to investigate the entire two-component impression management model. In this model, the dispositional impression motivation variables (i.e., public self-consciousness, self-monitoring, and fear of negative evaluation) were entered in the first step. The manipulated impression motivation variable was added at step two, the alcohol-construction dispositional variables were entered in step three, and the manipulated alcohol norm variable was entered in step four. Finally, all possible two-way interactions between the manipulated variables and the dispositional variables were entered in the last step.

*Research question 2.* To investigate the role of drinking patterns and consequences, another series of hierarchical logistic regression analyses were conducted. The model was identical to the one described in Research Question 1a, however, instead of entering the individual alcohol-construction variables in step three, the consequences and drinking pattern variable (AUDIT) was entered at this step.

Finally, possible three-way interactions were entered into the models testing research questions 1a and 2 (e.g., AUDIT x IM x Alcohol Norms), however none were significant, and therefore they will not be discussed any further.

## CHAPTER III

### RESULTS

#### *Manipulation Checks*

*Alcohol-construction norms.* When asked whether alcohol was mentioned in any of the profiles they viewed, 100% of participants in the alcohol norms condition and 18% of those in the control answered yes. Further, *t*-tests indicated that participants in the alcohol norm condition had different normative perceptions than the control condition about alcohol use among freshmen at their university ( $t(214) = -2.59, p < .05$ ) as well among the students in their Internet group ( $t(164) = -9.68, p < .01$ ). Specifically, students in the alcohol norms condition perceived that students in their Internet group ( $M = 2.07, SD = .77$ ) and on campus ( $M = 2.44, SD = .56$ ) drank more often/more heavily than those in the alcohol control condition (Internet group:  $M = 3.35, SD = .94$ ; On-campus:  $M = 2.64, SD = .57$ ).

*Impression motivation.* Of those participants in the high impression motivation condition, 77% answered correctly that their profile had been made immediately public to their internet group, 84.4% answered correctly that they had the possibility to earn extra credit. Of those students, 89% answered correctly that this extra credit was limited and 85% indicated it would be desirable to earn it. A *t*-test suggested that differences in the expected direction between the low ( $M = 3.18, SD = 1.47$ ) and high ( $M = 3.54, SD = 1.40$ ) impression motivation groups were marginally significant on the manipulation check question, ( $t(230) = 1.90, p = .06$ ). Similarly, a *t*-test revealed that scores on the

BIDR were marginally significantly different between the low ( $M = 9.69$ ,  $SD = 4.01$ ) and high ( $M = 11.57$ ,  $SD = 5.33$ ) impression motivation groups, ( $t(67) = 1.67$ ,  $p = .10$ ).

### *Research Questions*

*Research question 1.* Model 1 statistics (see Table 3) indicated that the model including the manipulated alcohol norm and impression motivation variables was a significant improvement over the null model, but that the model that included the interaction between these variables did not improve the explanation of alcohol self-presentation, as this step was not significant over and above the model including only the main effects of these variables ( $p < .05$ ). The Hosmer-Lemeshow test indicated that model fit was good ( $p > .05$ ) in both steps, however, only 61% of the cases were classified correctly indicating that other variables could be added to improve the model fit. These model fit statistics also suggests a need to add more variables to the model to explain alcohol self-presentation (see the models described in Research Question 1a and 2).

Results suggested that for students in the alcohol norms condition, odds were 2.6 times higher that they would construct an alcohol-related profile compared to participants in the alcohol control condition, which is a 158% increase in the odds of constructing an alcohol-related profile for those in the alcohol norm condition (Wald = 11.77,  $p < .01$ ). However, the impression motivation variable was not significant in this model (Wald = .10,  $p > .05$ ), nor was the interaction term (Wald = .06,  $p > .05$ ). Because the interaction was not significant, Hypothesis 1 was not supported. See Table 3 for full model statistics for this analysis.

*Research question 1a.* The second model investigated both the situational and dispositional impression motivation (IM) and alcohol-related impression construction variables in their relationship to alcohol self-presentation. See Table 3 for the complete results of this analysis. As Table 3 indicates, the first step (Dispositional IM variables) was not an improvement over the null model and the second (Situational IM) was not an improvement over the first. However, the third (Dispositional Alcohol Impression Construction variables), fourth (Situational Alcohol) and fifth models (Interaction terms) were a significant improvement over the one before each of them, suggesting the importance of the dispositional alcohol-construction variables (i.e., convivial drinking, AEQ, alcohol prototypes), the situational alcohol-construction variable, as well as the moderation of the situational variables by the dispositional variables. The final step in this model classified 84% of the cases correctly, and was a good fit according to the Hosmer-Lemeshow test ( $p > .05$ ).

Within the final model, there were several significant main effects. For example, self-monitoring ( $OR = 4.47$ ), convivial drinking ( $OR = 13.12$ ), and the alcohol norm manipulation ( $OR = 15.51$ ) were all significantly positively related to alcohol self-presentation. This partially confirms Hypothesis 1a as these variables were predicted to have a positive relationship with alcohol self-presentation. However, it only partially confirms this hypothesis, because fear of negative evaluation, self-consciousness, the AEQ, and alcohol prototypes were also predicted to be significantly positively related to alcohol self-presentation, but were not in the final model.

There were also several significant interactions in this analysis. For example, self-monitoring x IM, convivial drinking x IM, and convivial drinking x alcohol norm were significant according to the Wald tests ( $p < .05$ ).

See Figures 4-6 for a depiction of these significant interactions in which the low values were one *SD* below the mean and the high values were one *SD* above the mean. Overall, those in the low IM conditions and the alcohol norms conditions were more likely to present themselves as alcohol users than those in the high IM and control conditions, however the moderators did affect how strongly this pattern occurred.

Follow-up tests were conducted to further investigate the significant interactions by centering the moderators at 1 *SD* above and below the mean, re-running the analyses and then reinterpreting the IM and Alcohol Norm main effects after doing so. These follow up tests indicate that at high levels of self-monitoring, the IM conditions differed ( $p < .05$ ), but at mean and low levels of self-monitoring the IM conditions did not differ ( $p > .05$ ). When probabilities were calculated for the conditions that significantly differed, participants who were high self-monitors in the low IM condition, had a .99 probability of presenting themselves as an alcohol user, while high self-monitors in the high IM condition only had a .06 probability of doing so. These two probabilities represent the highest and lowest probabilities for this interaction; therefore, high self-monitors seem to be especially affected by situational impression motivation.

Follow up tests also suggested that at high levels of convivial drinking, the IM conditions differed ( $p < .05$ ), but the alcohol norms conditions did not ( $p > .05$ ). At mean levels of convivial drinking, the Alcohol norms conditions differed ( $p < .05$ ), but the IM

conditions did not ( $p > .05$ ). Finally, at low levels of convivial drinking the IM conditions differed ( $p < .05$ ), but the alcohol norms conditions did not differ ( $p > .05$ ).

Probabilities were calculated for the IM conditions that significantly differed from another and these indicated that participants who were high convivial drinkers in the low IM condition (.66) had a higher probability of being an alcohol self-presenter, as compared to those in the high IM condition (.51). In addition, participants who were low convivial drinkers who were in the low IM condition had a higher probability of being an alcohol self-presenter (.54) as compared to those in the high IM condition (.46). Overall, participants with the lowest probability of alcohol self-presentation were those who were low convivial drinkers and in the high IM condition (.46), while those with the highest probability were those in the low IM condition who were high convivial drinkers (.66).

Finally, the alcohol norms and control conditions significantly differed at average levels of convivial drinking, and participants who had average levels of convivial drinking who were in the alcohol norms condition had higher probabilities of being alcohol self-presenters (.98), as compared to those in the control condition (.60).

*Research question 2.* The second research question dealt with drinking patterns and consequences of drinking (i.e., the AUDIT). Similar to the previous analyses, the dispositional and situational IM variables did not add to the model's predictive ability, however, the steps containing the AUDIT, the alcohol norms manipulation, as well as the interactions did significantly reduce the -2LL and increase the Nagelkerke  $R^2$ , again indicating the importance of the steps containing the impression construction variables as seen in the previous model. See Table 4 for full analysis results for this model.

Within the final model, there were main effects for the AUDIT ( $OR = 1.59$ ) and the alcohol norms manipulation ( $OR = 8.31$ ), and each both had a positive relationship with alcohol self-presentation, confirming Hypothesis 2.

In addition, the self-monitoring x IM, the AUDIT x IM, and the AUDIT x alcohol norms interactions were significantly related to alcohol self-presentation. See Figures 7-8 for a depiction of the significant interactions with the AUDIT. Overall, participants in the alcohol norms and low IM conditions had a higher probability of being an alcohol self-presenter than those in the control and high IM conditions; however the AUDIT affected the strength of this effect by causing a greater disparity between each of the conditions at high AUDIT levels.

Follow-up tests were conducted to further investigate the significant interactions. In order to do this, the moderating variable (e.g., the AUDIT scores) was centered at 1 *SD* above as well as 1 *SD* below the mean, and the interaction term was re-formed at these levels, and the analysis was re-run. The IM and alcohol norms variables were then re-interpreted in light of these analyses. These analyses suggested that at low levels of the AUDIT, there was no difference between the alcohol norms conditions or the IM conditions ( $p > .05$ ). At mean levels of the AUDIT, there was a significant difference between the alcohol norms conditions ( $p < .05$ ), but not the IM conditions ( $p > .05$ ). Finally, at high AUDIT levels, there was a significant difference between the IM conditions ( $p < .05$ ), but not the alcohol norms conditions ( $p > .05$ ).

When examining overall probabilities associated with the IM x AUDIT interaction, participants who were in the high IM condition with low AUDIT scores (.49) had the lowest probability of presenting themselves as an alcohol user, while participants

in the low IM condition who had high AUDIT scores had the highest probability of doing so (.99). However, the IM conditions only differed significantly at high levels of the AUDIT, and in this case, participants in the high IM condition (.91) had a lower probability of presenting themselves as an alcohol user than those in the low IM condition (.99).

In the Alcohol norms x AUDIT interaction, overall probabilities suggest that participants who had high AUDIT scores who were also in the alcohol norms condition had the highest probability of being an alcohol self-presenter (.99), while participants in the alcohol control condition who had low AUDIT scores had the lowest probability of being an alcohol self-presenter (.67). Interestingly, even when participants had a low AUDIT score, their likelihood of being an alcohol self-presenter greatly increased when they were in the alcohol norms condition (.96). The alcohol norms conditions only differed significantly at mean levels of the AUDIT. At this level of the AUDIT, participants in the alcohol norms condition had a higher probability (.99) of alcohol self-presentation as compared to those in the control condition (.96).

The self-monitoring interaction was significant and had a similar pattern to that described in the Hypothesis 1a analysis (see Figure 4). Again, participants who were high self-monitors in the low IM condition, had a significantly higher probability of presenting themselves as an alcohol user than those in the high IM condition.

## CHAPTER IV

### DISCUSSION

The purpose of study one was to experimentally investigate alcohol self-presentation from the perspective of the two-component model of impression management (Leary & Kowalski, 1990). Two main research questions were asked. First, does high situational self-presentational motivation and strong situational alcohol construction cues lead to alcohol-related self-presentation (question 1) and what can dispositional variables add to the explanation of this behavior (question 1a)? Second, do drinking patterns and alcohol-related consequences have an effect on alcohol self-presentation and how do they interact with the situational variables (question 2)?

#### *Research Questions 1 and 1a*

Related to research question 1, it was hypothesized that there would be an interaction between the situational IM and construction variables (e.g., norms) in the explanation of alcohol self-presentation. This was hypothesized because the two-component model of impression management suggests that self-presentation is first made up of motivational factors such as whether goals during interactions are relevant (e.g., dependency on targets), how valuable outcomes are (e.g., scarcity), and how discrepant one's current and desired social image (Leary & Kowalski, 1990). Once someone becomes motivated to manage their impressions, the model also suggests that situational construction factors would affect self-presentation via roles and norms present during interactions (Leary & Kowalski, 1990). In this study, motivational and construction

factors were manipulated, however, the findings did not fully support the hypothesis based on the two-component model, as there was no interaction between the IM and construction (e.g., norms) factors.

However, the manipulated construction variable alone (e.g., alcohol norms) was significantly related to alcohol self-presentation. This significant effect indicates that alcohol self-presentation was strongly influenced by the situational construction cues (e.g., strong alcohol norms of the Internet group), even without a strong motivation to manage impressions. For example, participants who were lead to believe that their Internet group members drank alcohol based on their profile descriptions had a higher probability of presenting themselves as an alcohol user, regardless of level of impression motivation.

These findings suggest that alcohol self-presentation will occur even if strong motivation to manage impressions is not present. This might seem contradictory to the two-component model, as most discussions of the model suggest that once someone is motivated to manage their impressions, only then will they begin the impression construction processes (e.g., Leary & Kowalski, 1990). Further, research on this model does not suggest a clear case when self-presentational behavior occurs in the absence of impression motivation, and instead only in the presence of construction cues. However, there may be several ways to explain this finding. First, it is not clear how *much* impression motivation is necessary to trigger impression construction processes. Perhaps even the low IM condition in this study was enough to prompt the construction processes to take place. Second, it could be that self-presentational behavior takes place due to construction processes alone when impression construction cues are particularly strong or

salient (as seems to be the case in this study). Indeed, research suggests that some patterns of self-presentational behavior are over-learned, habitual, and/or non-conscious and can be easily cued depending on their strength and relevance (Aarts & Dijksterhuis, 2003; Hogan, Jones, & Cheek, 1985; Schlenker, 1980). Future research should investigate the underlying process of how impression motivation triggers construction, when self-presentation occurs in the absence of one or the other process, and whether the situational construction (e.g., alcohol norms) processes in this study occur at a non-conscious level.

The finding that impression construction processes were important in alcohol self-presentation also supports the large social norms literature on alcohol use and extends it to the area of self-presentation. For example, research suggests that students' perceptions of the prevalence of alcohol use among their peers are associated with their own alcohol use, and when alcohol use is perceived to be high, students increase their own alcohol use to meet this higher norm (e.g., Borsari & Carey, 2003; Neighbors et al., 2008; Perkins, 2003). Based on the findings of this study, when students perceived a higher alcohol use norm, they were more likely to present themselves as an alcohol user. Therefore, this study can add to the explanation of why alcohol norms are important in explaining drinking behavior; it could be that adhering to these norms provides many benefits related to creating and maintaining social relationships, or gaining other rewards even when risks are possible (e.g., injuries). For example, adhering to situational alcohol norms by presenting the self as an alcohol user in this study could have led to rewards like additional extra credit, and being accepted by a new peer group. These rewards represent important functions of self-presentation like fulfilling the need to belong, maximizing

cost-benefit ratios in social relations, and positively influencing other people (Leary, 1995).

In research question 1a, dispositional impression motivation and construction factors were investigated to determine if they would add to the prediction of self-presentation above the situational factors studied in question 1. These dispositional factors were investigated because previous research as well as the two-component model suggest impression motivation constructs like self-monitoring and fear of negative evaluation have been related to self-presentation and alcohol use (e.g., Leary, 1995; Sharp & Getz, 1996). Further, some factors that were proposed to be alcohol impression construction factors because of their importance to the self-concept and self-image (e.g., AEQ, alcohol prototypes) were investigated. The interactions between some of these dispositional variables and the situational variables proved to be extremely interesting and somewhat unexpected, especially related to the impression motivation interactions. Overall, findings indicated that *situational* motivation and construction factors that are present in social situations may be dependent on being more sensitive to social cues dispositionally and expecting to drink heavily in social situations in determining self-presentational behavior.

First, for high convivial drinkers, those with low impression motivation were more likely to present themselves as alcohol users than those with a high amount of impression motivation. While the main focus of this study has been on situations involving high impression motivation, this finding highlights the importance of low impression motivation, or cases in which students may not be particularly concerned about how their peers perceive them, when they also have heavy drinking patterns.

Perhaps students with heavy social drinking patterns were concerned that they would be perceived negatively due to their heavy drinking, therefore in the high impression motivation condition, they did not present themselves as an alcohol user. On the other hand, when heavy convivial drinkers weren't as concerned about making impressions, they were more likely to present themselves as drinkers, indicating that they might present their "true" drinking patterns in this case because it was less "socially risky" to do so.

This finding could suggest that students who are in situations in which they aren't highly concerned about how they are perceived by their peers and who have individual patterns of heavy social drinking, may be at the most risk for alcohol self-presentation. This pattern (low impression motivation increasing alcohol self-presentation) was somewhat unexpected, as throughout this paper it has been suggested that high impression motivation would lead to increased alcohol self-presentation. However, one study does support such findings in that public self-consciousness was a protective factor for fraternity members. Participants decreased their drinking as public self-consciousness increased, and increased drinking as self-consciousness decreased (Park et al., 2006). Therefore, the more they were concerned about how their peers were appraising them, the less that they got drunk. However, this finding was among male fraternity members; therefore more research should examine how low impression motivation may affect alcohol use behaviors among other populations.

While there was a main effect for the alcohol norms condition such that when participants thought that their internet group drank more often and more heavily, alcohol self-presentation was more likely, and convivial drinking patterns seemed to strengthen

this effect. Specifically, for those with an average level of convivial drinking, the alcohol norms manipulation had a stronger effect on alcohol self-presentation. Therefore, students with an average level of convivial drinking seemed to pay the most attention to the alcohol norms of their internet group, and adjusted their presentation accordingly; if there was a high norm, they had a higher likelihood of alcohol self-presentation. Average convivial drinkers may especially look for direction from their peers in social situations involving alcohol.

The interpretation of the significant interaction between self-monitoring and impression motivation is a little more straightforward given the nature of self-monitoring and resembled the results discussed above related to convivial drinking. First, results also suggest that low impression leads to alcohol self-presentation. However, for high self-monitors, low impression motivation lead to a significantly higher likelihood of alcohol self-presentation, as compared to high impression motivation, which is not an unexpected pattern of results. High self-monitors are sensitive to cues about normative behavior and can adjust their behavior more readily than low self-monitors (Snyder, 1974). In this study, high self-monitors may have been particularly keen at recognizing the high and low impression motivation manipulations as the differences between the low and high IM conditions were exaggerated for them. While high self-monitoring has been consistently related to alcohol use behavior (Bell et al., 2000), participants who were high on this trait may have been more concerned about making a negative impression by presenting themselves as an alcohol user if they were in the high impression motivation condition, which lessened the likelihood that they would present themselves to be a user of alcohol.

### *Research Question 2*

The second main research question focused on the role of drinking patterns and consequences in alcohol self-presentation (e.g., the AUDIT). While lower impression motivation and higher alcohol norms were related to the increased likelihood of alcohol self-presentation, higher AUDIT scores seemed to increase this effect on alcohol self-presentation. Related to the impression motivation findings, the pattern was similar to those of convivial drinking discussed above. Findings indicated that students high on the AUDIT may have been concerned about their heavy drinking patterns because those in the high impression motivation condition were less likely to present themselves as alcohol users than those in the low IM condition. Findings also indicated that students who had average scores on the AUDIT paid particular attention to the norms of their Internet groups, with students who were in the norms condition increasing their alcohol presentation even more severely, and the opposite occurring for people in the control condition.

It is important to note that those who were labeled as high on the AUDIT in this study would fall above the cutoff score (i.e., eight) on the scale indicating that they had a strong likelihood of hazardous or harmful alcohol consumption (Saunders, 1993). This supports the idea that students falling above the cutoff might be aware of their hazardous drinking, and were concerned about this when presenting themselves to their Internet group. Perhaps they are aware that they don't make a good impression when drinking because they also experience unflattering negative consequences.

Both general drinking patterns/consequences (i.e., AUDIT) and social drinking patterns (i.e., convivial) seem to have similar moderation effects on the situational impression motivation and construction components. Overall, these findings suggest that

students with heavy drinking patterns could be especially at risk for alcohol self-presentation in situations in which they aren't especially concerned about how peers are viewing them. Findings also suggest that students with average drinking patterns may be particularly affected by the immediate alcohol norms around them in social situations. These findings may have implications for interventions, as results suggest that both heavy and average drinkers may benefit from interventions, but in different ways. For example, average drinkers may benefit from individual norms reduction interventions, while heavy drinkers may benefit from interventions that increase their concern with how other people view them in social interactions. Future research is needed to confirm these suggestions.

### *Limitations*

While this study provides the first comprehensive experimental examination of alcohol self-presentation, there are some important limitations. First and perhaps most important, actual alcohol use was not measured. Therefore, while some students made themselves appear to be alcohol users in an Internet profile, it is unknown if this behavior extends to actual alcohol use. Second, the lab setting was highly controlled and didn't involve participants' actual friends or people that they would normally interact with. In addition, it involved computer-mediated social interactions, rather than in-person social interaction. Students were responding individually, rather than being in a group-based social setting. Therefore, it is unclear how the self-presentational processes studied operate in college students' "real lives." Despite this limitation, it is still important to note that some of findings were robust despite the artificial situation; therefore it is possible that stronger effects might exist if participants were interacting with others in a more realistic situation.

Third, 56 participants either did not attend the second lab-based study session, or were not able to provide the correct identifying code and were subsequently excluded from analyses. It should be noted that these excluded students had heavier drinking patterns than the students who were retained in the study, and the students who were not retained averaged an eight on their AUDIT scores indicating that these participants meet the screening score for potentially being at risk for drinking consequences. Their heavy drinking patterns may have contributed to their inability to attend the follow-up or provide the correct information if they did attend. If they did contribute to study outcomes, it is possible that the effects seen would have been even stronger.

Finally, there were potential issues related to several of the main variables. First, the dependent variable did not have much variability. As a result, it was dichotomized. The lack of variability could have been due to the profiles that participants viewed in the alcohol norms manipulation. For example, the maximum alcohol codes for those profiles would have been a three. Therefore, participants were likely modeling the amount of alcohol information provided by the “students” in the profiles. In addition, manipulation checks indicated that the differences between the low and high IM conditions were only marginal. While means suggested a trend in the correct direction (e.g., participants in the high condition were more motivated to manage the impressions to their group), findings related to this manipulation should be interpreted with caution due to the marginal differences found. It is possible that there is not a lot of variability in impression motivation, particularly when compared to the alcohol norms that were manipulated. While the impression motivation manipulation was meant to manipulate the amount of information available to the audience (i.e., Internet peer group members), it is possible

that even in the low impression motivation group there was an audience. For example, it could be that “the self” was the audience in this condition (e.g., self-as-audience; Schlenker, 1986). It has been suggested that people behave in ways in order control their impressions of *themselves* as well as other people (e.g., Hogan et al., 1985; Schlenker, 1980). In this study, people may have been trying to maintain a certain view of themselves with regard to alcohol use (Leary & Kowalski, 1990). Therefore, while this study has focused on self-presentation to others, it could be that people in the low condition were self-presenting to themselves. Alternatively, it could be that the manipulation check questions were not sufficient to measure the level of impression motivation experienced. Leary and Kowalski (1990) suggest that people may not be aware that they are paying attention to impression relevant information and behavior in their environment; therefore, it could be that measures that tap into less conscious cognitions are necessary to measure the level of impression motivation among participants.

## CHAPTER V

### STUDY 2

This study was conducted in order to address some of the limitations from Study 1 and to replicate the findings using a different methodology. Specifically, Study 2 determined how the self-presentational processes investigated in Study 1 operated in a more natural setting. In addition, Study 2 investigated self-reported alcohol use as the dependent variable as opposed to alcohol information in an online profile. Finally, instead of lab-manipulated impression motivation, impression motivation was reported about actual social interactions participants had with people they interacted with in their normal daily lives. Using a daily process study, the research questions and hypotheses from Study 1 were investigated and extended:

**Research Question 1:** Does high situational self-presentational motivation along with strong situational alcohol construction cues (i.e., alcohol norms) cause alcohol-related self-presentation as evidenced by alcohol use?

**Hypothesis 1:** In this study, alcohol construction cues were operationalized as the presence of strong alcohol-related norms via the amount of people drinking during the social interaction and the amount of alcohol-related materials in the environment (e.g., alcohol-related posters). Though the expected significant interaction between situational impression motivation and alcohol impression construction cues was not found in Study 1, this interaction was investigated again to determine how more natural impression motivation (as opposed to lab-

based) affected the outcome. It was expected that students who reported high impression motivation who were also exposed to strong alcohol norms in their environment during social interactions would report more alcohol use during those interactions.

**Research Question 1a:** In Study 1, several dispositional factors moderated the relationship between the situational variables and alcohol use, therefore, all dispositional factors were investigated in Study 2. Specifically, the question was: do dispositional impression motivation factors (e.g., fear of negative evaluation) and alcohol-construction related factors (e.g., alcohol expectancies) moderate the relationship between the situational factors and self-presentational alcohol use?

**Hypothesis 1a:** Based on the findings from Study 1, it was expected that convivial drinking would moderate the relationship of the situational IM and construction factors with alcohol use. For example, it was hypothesized that participants with low IM concerns who reported being high convivial drinkers, would report more alcohol use per social interaction than participants with high IM concerns. In addition it was hypothesized that average convivial drinking would lead those who were exposed to strong alcohol norms to have a strong relationship with alcohol use. Finally, self-monitoring was also expected to be a moderator of the relationship between IM and alcohol use such that for those social interactions that involve low IM, high levels of dispositional self-monitoring would increase alcohol use, while high IM would decrease alcohol use. All other potential moderators used in Study 1, were also investigated in Study 2.

In addition, as in Study 1, for exploratory purposes, possible three-way interactions between IM x Alcohol Norms and all potential moderator variables were investigated.

**Research Question 2:** Do drinking patterns and frequency of alcohol-related consequences moderate the relationship between the situational factors and alcohol-related self-presentation?

**Hypothesis 2:** Based on the findings of Study 1, it was hypothesized that patterns of alcohol use and consequences (the AUDIT) would moderate the relationship of the situational IM and construction factors with alcohol use. For example, it was expected that for those who had average AUDIT scores, who were exposed to strong alcohol norms, would drink more than students who weren't exposed to strong norms. In addition, participants with low IM concerns, who scored high on the AUDIT, were expected to drink more than participants with high IM concerns.

This study also extended the findings of study one by adding the following research question:

**Research Question 3:** Are alcohol impression construction and impression motivation processes during social interactions related to heavy episodic drinking (e.g., 5 or more drinks) versus more moderate drinking (less than 5 drinks) during those social interactions? How do AUDIT scores moderate this relationship?

## CHAPTER VI

### METHOD

The second study utilized a daily diary method in order to further investigate Research Questions 1 and 2 and to investigate Research Question 3. Daily diaries are self-report instruments used to repeatedly examine ongoing experience within everyday situations and assist in examining the contexts in which thoughts and behaviors occur (Bolger, Davis, & Rafaeli, 2003; Stone & Shiffman, 2002). Daily diary methods have several benefits including being able to examine events and experiences in a natural context and limiting the amount of time that elapses between an experience and when it is reported (Bolger et al., 2003). In daily diary studies, estimates of within-person change over time as well as individual differences in such change can be obtained.

#### *Participants*

One-hundred freshmen introductory psychology (84 women, 16 men) students under age 21 were recruited during September of their first semester on campus. Most participants were 18 years old (83%), with 5% being 17 years old and 12% being 19 years old. Participants were recruited in the beginning of their first semester on campus to capture a time when they were making new friends, meeting new people, and in a new environment. This is also a time when there is a natural induction of impression motivation, and previous studies have implicated this time period as being important in capturing impression management processes as well as health risk behaviors (e.g., Martin & Leary, 2001).

As an incentive, participants received course credit and were also entered into a raffle for one of ten \$20 gift certificates if they completed 80% of their daily surveys (73% of participants were entered). It is recommended that multiple incentives, such as the ones used in this study, be offered in daily diary studies to reduce attrition and increase study compliance (Conner-Christensen, Feldman-Barrett, Bliss-Moreau, Lebo, & Kaschub, 2003)

Participants were mainly White (95%) students who identified as non-Hispanic (93%). All participants were unmarried, most resided in campus residence halls (97%) and were not members of fraternities or sororities (97%) or athletics teams (88%). The majority of participants were not originally from Fort Collins (95%) and many reported that the majority of their friends from high school lived at least 1 hour away (88%).

#### *Procedure*

Participants reported to a social psychology lab and completed several computerized survey measures. They were then given instructions on how to use the computerized web-based diary that they were to complete on a daily basis. Based on Nezlek and Leary (2002), participants were told that on a daily basis they would be asked to answer questions about face-to-face social interactions that lasted 10 minutes or longer, such that an interaction was defined as “any encounter with one or more other people in which the participants attended to one another and adjusted their behavior in response to one another” (e.g., a conversation, p. 214). In order to narrow down the amount of data collected, participants were asked to only report on interactions that occurred after 5pm. Participants only reported on social interactions that took place after

5pm because other daily diary studies have found that this is when most alcohol consumption occurs (e.g., Dehart, Tennen, Armeli, Todd, & Affleck, 2008).

Participants completed the daily Internet-based computerized diary once per day for three weeks using SurveyMonkey.com. It has been suggested that this method of data collection in alcohol-related diary studies can allow data to be collected from large numbers of individuals who are participating simultaneously and is a good method for data collected only one time per day (Armeli, Todd, & Mohr, 2005). Also, participant compliance can be monitored closely because dates and times of survey completion are electronically recorded (Nezlek & Smith, 2005).

Participants were instructed to complete the diary before 2pm each day to report on their social interactions from the day before (5pm and after) and were only able to log on to the website between 8am and 2pm to reduce variation in reporting times (Armeli et al., 2005). Recalling the previous day's events once a day within 24 hours has been found to be fairly accurate because once daily reports are highly similar to several times a day reports (Kahneman, Krueger, Schkade, Schwarz, & Stone, 2004). In addition, studies on daily social interactions that allow participants to complete survey measures about their social interactions as often as they want typically show that participants complete the survey an average of only 1.5 times per day (Kafetsios & Nezlek, 2002). Therefore, reporting would not likely have greatly differed if participants were allowed to update the diary more frequently in the current study.

In addition, to increase compliance with the daily surveys, participants were told that they would be dropped from the study if they missed more than two surveys within a week (8 participants were dropped who completed 8 diary days on average; because they

provided some data, they were retained for analysis). At the end of the third week of daily diary completion, participants reported back to the lab where they received information about compensation and were debriefed. To increase compliance, e-mails were sent daily to participants over the 3 weeks to remind them to log onto the website to complete the daily measures (Armeli et al., 2005). The web link to the study survey was included in each of these e-mails.

### *Measures*

*Lab measures.* In their initial lab visit, participants completed the same battery of scales as discussed in Study 1 (see *Materials* section of Study 1 for more information about these scales). Therefore, the following measures of dispositional factors related to impression management were included: the Revised Self-Monitoring Scale ( $\alpha = .79$ ; Lennox & Wolfe, 1984), Brief Fear of Negative Evaluation ( $\alpha = .89$ ; Leary, 1983), and the Public Self Consciousness Scale ( $\alpha = .80$ ; Fenigsten et al., 1975). Also as in Study 1, measures related to alcohol, such as the AUDIT ( $\alpha = .81$ ; Saunders et al., 1993), the convivial sub-scale of the Drinking Contexts Scale ( $\alpha = .93$ ; O'Hare, 1997), the alcohol prototypes scale ( $\alpha = .62$ ; Thornton et al., 2002) and the AEQ ( $\alpha = .89$ ; Brown et al., 1987) were included. See Table 2 for descriptive statistics related to all individual differences variables.

*Daily measures.* As part of the daily diary portion of the study, participants were asked a series of questions related to impression motivation, alcohol related impression construction, and alcohol use. First, they were asked to report on their social interactions that occurred after 5pm the previous day. To assess levels of impression motivation during interpersonal interactions, based on Nezlek and Leary (2002), they were asked (a)

how much they thought about how the other interactants were perceiving or evaluating them during the interaction, (b) how nervous or tense they felt in the interaction, (c) how enjoyable and intimate the interaction was, (d) how positive or negative of an impression they think their interactants had of them before and during the interaction, (e) if they expected to see the interactants in the future, (f) how important the interactants were to their desired outcomes, and (g) if there was any outcome of value that they could have received that was scarce based on the interaction. All ratings were made on a 9-point scale and were totaled to form an impression motivation score for each social interaction (higher scores equal higher impression motivation).

To determine how many alcohol impression construction cues were present during each social interaction, participants were asked whether (a) there was any alcohol-related posters or media present during the interaction (1 = yes and 0 = no) and (b) how many people were drinking during the interaction (choices ranged from 0 to more than 6 people). Scores from these two questions were totaled to form an alcohol-impression construction score (higher scores equal higher alcohol related cues).

For descriptive purposes related to the social interactions, participants were also asked how long each social interaction lasted (1 = 10 minutes, 3 = 30 minutes to 1 hour, 6 = more than 6 hours) and whether the interactants were single or mixed gender.

Finally, participants were asked to report how many drinks of alcohol they had during each reported social interaction. In addition, they reported what kind of alcohol (beer, liquor, wine, combination) they mainly drank over the past day. Participants were also asked to indicate (yes or no) if they had experienced any of the following negative consequences over the past day (taken from the AUDIT and the College Alcohol

Problems Scale; Saunders et al., 1993; Maddock, Laforge, Rossi, & O'Hare, 2001) due to drinking: Failure to do what was normally expected of them, having unplanned sex, being unable to remember what happened to them while they were drinking, driving under the influence, feeling bad about themselves, and having appetite or sleep problems.

### *Statistical Analysis*

Diary data are multilevel in nature (Armeli, Carney, Tennen, Affleck, & O'Neil, 2000); therefore, multilevel modeling analyses were conducted to investigate the research questions in this study. Multilevel modeling is appropriate to use when analyzing data with hierarchical structures (Papp, 2004). For example, in the current study, individuals are nested within social interactions. Raudenbush and Bryk (2002) describe multilevel models as having two (or more) levels of data. The information about social interactions and alcohol use that was collected repeatedly over time makes up Level 1 in the current study. Between subjects information (e.g., individual differences information collected at the first study session) makes up Level 2 in this study. Therefore, one can consider both social interaction and individual differences factors that may be related to alcohol use, as well as how data at Level 2 affects relationships at Level 1 (e.g., cross level interactions or moderators. For example, is the effect of alcohol norms on alcohol use stronger in those who have high AEQ scores?). There are several advantages to using multilevel modeling techniques, such as being able to model datasets in which data points are missing, and in which individuals are not measured at exactly the same time points or intervals (Papp, 2004).

All analyses were conducted using the Hierarchical Linear Modeling (HLM) software program, Version 6.34 (Raudenbush, Bryk, & Congdon, 2008). The dependent

variable in this study for Research Questions 1, 1a, and 2, number of alcoholic drinks consumed per social interaction, is a count variable. Further, as in other diary studies of alcohol use and health risk behaviors (e.g., Barta, Portnoy, Kiene, Tennen, Abu-Hasaballah, & Ferrer, 2008; Mohr et al., 2001), the distribution of this count outcome had a large number of zeros (i.e., no alcohol was consumed during many of the social interactions reported). As a result of the large number of zeros, a transformation could not be used to normalize the data. Poisson regression is more appropriate in this case and is characterized as the number of events that occur in a particular time period and can be used when examining rare events with distributions that are very positively skewed (Cohen, Cohen, West, & Aiken, 2003). Therefore, the Poisson option with a log-link function in the HLM program was used, which is a nonlinear analysis that uses a hierarchical generalized linear model (HGLM; Raudenbush, Bryk, Cheong, & Congdon, 2001). In addition, the overdispersion option in HLM was selected because overdispersion (systematic variation that is not accounted for by the predictors leading to more variation in residuals than a normal Poisson model allows) is frequently found in count data and can inflate goodness of fit tests and affect standard errors (Cohen et al., 2003).

In general, the Poisson model predicts the expected alcoholic drinks during a given social interaction based upon the predictor variables included in the regression equation (Barta et al., 2008). The coefficients for each predictor variable are expressed as Event Rate Ratios (ERR). As with ORs found in logistic regression analyses, ERRs are interpreted relative to the value of 1. An OR is interpreted as a change in *odds* of an event occurring as a result of the independent variables, while an ERR is interpreted as a

change in the *frequency* of events (Barta et al., 2008). For example, an ERR of 1.5 indicates that a one point increase in the variable increases the number of drinks occurring during each social interaction by 50%, and an ERR of .5 would mean that a one point increase on the independent variable decreases the number of drinks that occur during each social interaction by 50%. Finally, the Unit-Specific rather than the Population Specific results will be presented for this study.

An initial analytic step was conducted to investigate whether the dependent variable (drinks of alcohol) showed a linear trend over the course of the study period to determine whether growth modeling procedures should be used (Papp, 2004). Results indicated that participants' alcohol use did not vary as a function of study day ( $p > .05$ ); therefore, a day variable was not included in any subsequent Level 1 models that were estimated.

Of additional concern is that a repeated measures design with close together data collection periods, such as the one used in this study, can lead to highly correlated observations and may result in autocorrelations among errors. However, other diary studies of alcohol use have found no evidence of such auto-correlated error structures after controlling for day of week alcohol use effects (e.g., weekends have heavier drinking than weekdays; Armeli et al., 2005). Therefore, in an attempt to avoid issues related to autocorrelated error, a dummy coded day of week variable (0 = weekday; 1 = weekend) was included in the models and was treated as a fixed effect.

*Model testing and multilevel equations.* All Level 1 and Level 2 variables were grand-mean centered. Therefore, at Level 1, an individual's situational IM and Alcohol Norms will be understood relative to the average observed in the entire Level 2 sample.

First, an unconditional model with no Level 1 or 2 predictors included in the model was estimated to determine how much variability in alcohol use existed within versus between people. In this model, the outcome measure is not modeled as a function of variables at any level of analysis.

$$\text{Drink}_{it} = b_{0i} + e_{it} \quad (\text{Equation 1})$$

$$b_{0i} = Y_{00} + u_{0i} \quad (\text{Equation 2})$$

Equations 1 and 2 show the unconditional model, where “Drink” is person *i*’s consumption during social interaction *t*. Equation 1 represents the basic Level 1 model,  $b_{0i}$  is an intercept representing the mean drinking across all interactions, and  $e_{it}$  represents residual variance (within group variance in drinking). Equation 2 represents the basic Level 2 model in which  $Y_{00}$  represents the grand mean of the person-level drinking means from the Level 1 model and  $u_{0i}$  is the Level 2 residual variance (between group variance in drinking).

Next, to investigate Research Question 1, a model with only the Level 1 (IM, Alc Norms, IMxAlcNorms) predictors was estimated in order to determine the role of the situational components of the two-component model of impression management.

$$\text{Drink}_{it} = b_{0i} + b_{1i}(\text{IM}_{it}) + b_{2i}(\text{Alcohol Norms}_{it}) + b_{3i}(\text{IMxAlcNorms}_{it}) + e_{it} \quad (\text{Equation 3})$$

$$b_{0i} = Y_{00} + u_{0i} \quad (\text{Equation 4})$$

$$b_{1i} = Y_{10} + u_{1i} \quad (\text{Equation 5})$$

$$b_{2i} = Y_{20} + u_{2i} \quad (\text{Equation 6})$$

$$b_{3i} = Y_{30} + u_{3i} \quad (\text{Equation 7})$$

Equation 3 represents the Level 1 model where “Drink” is person *i*’s consumption during social interaction *t*,  $b_{0i}$  is the predicted value of drink for person *i* when all

predictors are at the sample mean during interaction  $t$ ,  $b_{1i}$ ,  $b_{2i}$ ,  $b_{3i}$  are the within-person regression coefficients for the predictors for person  $i$ , and  $e_{it}$  is a random residual component. All of the Level 1 predictors were grand mean centered; thus  $b_{0i}$  in Equation 3 can be interpreted as the predicted value of a Drink adjusted for all the Level 1 predictors. Equations 4 - 7 represent the Level 2 model. The intercept model is represented by Equation 4 in which  $Y_{00}$  represents the average level of drinks (mean intercepts). Equation 5 shows the Level 2 regression model predicting the Level 1 within-person associations between IM and drinking, Equation 6 shows the Level 2 regression model predicting the Level 1 within-person association between Alcohol Norms and drinking, and Equation 7 shows the Level 2 regression model predicting the Level 1 within-person association between the IM and Alcohol Norms interaction and drinking.

Next, to investigate Research Questions 1a (i.e., role of dispositional alcohol variables) and 2 (i.e., role of AUDIT), several models with the possible Level 2 moderator variables were tested. First, the IM dispositional variables were added. Only significant IM predictors or moderators were retained and then one model including the dispositional alcohol related variables (AEQ, Social Contexts Drinking, and Alcohol Prototypes) were added and another model including the AUDIT scores instead of the dispositional alcohol variables were added. These models allowed for testing the cross-level interactions between the Level 2 variables and the Level 1 relationships. The equations presented below assume that all variables were retained (as will be discussed later, this was not the case) and cover the models with the alcohol dispositional variables. The model including the AUDIT (to test Hypothesis 2) was identical except that the other dispositional variables were removed and the AUDIT was added.

$$\text{Drink}_{it} = b_{0i} + b_{1i}(\text{IM}_{it}) + b_{2i}(\text{Alcohol Norms}_{it}) + b_{3i}(\text{IMxAlcNorms}_{it}) + e_{it} \quad (\text{Equation 8})$$

$$b_{0i} = Y_{00} + Y_{01} (\text{Self-Consciousness}) + Y_{02} (\text{Self-Monitoring}) + Y_{03} (\text{Fear of Negative Evaluation}) + Y_{04} (\text{AEQ}) + Y_{05} (\text{Social Contexts Drinking}) + Y_{06} (\text{Alcohol Prototypes}) + u_{0i} \quad (\text{Equation 9})$$

$$b_{1i} = Y_{10} + Y_{11} (\text{Self-Consciousness}) + Y_{12} (\text{Self-Monitoring}) + Y_{13} (\text{Fear of Negative Evaluation}) + Y_{14} (\text{AEQ}) + Y_{15} (\text{Social Contexts Drinking}) + Y_{16} (\text{Alcohol Prototypes}) + u_{1i} \quad (\text{Equation 10})$$

$$b_{2i} = Y_{20} + Y_{21} (\text{Self-Consciousness}) + Y_{22} (\text{Self-Monitoring}) + Y_{23} (\text{Fear of Negative Evaluation}) + Y_{24} (\text{AEQ}) + Y_{25} (\text{Social Contexts Drinking}) + Y_{26} (\text{Alcohol Prototypes}) + u_{2i} \quad (\text{Equation 11})$$

$$b_{3i} = Y_{30} + Y_{31} (\text{Self-Consciousness}) + Y_{32} (\text{Self-Monitoring}) + Y_{33} (\text{Fear of Negative Evaluation}) + Y_{34} (\text{AEQ}) + Y_{35} (\text{Social Contexts Drinking}) + Y_{36} (\text{Alcohol Prototypes}) + u_{3i} \quad (\text{Equation 12})$$

In this model, Equation 8 represents the Level 1 model, and Equations 9 – 12 represent the Level 2 models. In Equation 8,  $b_{0i}$  is the predicted value of drinking per person  $i$ , when IM, Alcohol Norms, and IM x Alc Norms are equal to the sample mean during interaction  $t$ ,  $b_{1i}$  is the within-person slope of the IM and drinking relationship for person  $i$ ,  $b_{2i}$  is the within-person slope for the Alcohol Norms and drinking relationships for person  $i$ , and  $b_{3i}$  is the within-person slope for the IM x Alc Norms interaction for person  $i$ , and  $e_{it}$  is the random residual component. Finally, to assess the moderating effects of the situational variables on the within-person associations between the Level 1 variables and alcohol use, Equations 9 – 12 were modeled. These Equations are important to the investigation of Hypothesis 1a (and Hypothesis 2, when the AUDIT scores were

entered). For example, in Equation 9,  $Y_{11}$  represents whether Self-Consciousness is a moderator of the relationship between IM and alcohol use.

Finally, a model was constructed to investigate Research Question 3. Because this question was concerned with whether self-presentational processes lead to heavy episodic drinking versus non-heavy episodic drinking, the dependent variable (number of drinks consumed per interaction) was dichotomized in which 1 represented heavy drinking (5 or more drinks) and 0 represented non-heavy drinking (less than 5 drinks). Five drinks were used as a cutoff because this is the typical number of drinks assumed to reflect “heavy episodic” or “binge” drinking in college students (Hingson et al., 2005). In these models, because the dependent variable was dichotomous, the Bernoulli function in HLM was chosen. This is similar to the Poisson regression method described above in that it is a nonlinear analysis that uses HGLM, but it provides ORs instead of ERRs and uses a logit-link function, so it is a logistic regression analysis (Raudenbush et al., 2001). First, a model was constructed with only the Level 1 variables, and then a model was constructed adding the AUDIT at Level 2.

## CHAPTER VII

### RESULTS

#### *Descriptive Statistics*

*Diary data and final sample.* In total, participants provided 1814 days of data which indicates that participants completed the survey on 86% of total expected days (total potential days were 2100). This compliance rate is consistent with other alcohol daily diary studies (e.g., Armeli et al., 2005; Mohr et al., 2008). However, because social interactions were the main interest in this study, days on which no social interactions occurred were dropped from the data set (17% of the total days reported), and also resulted in one participant being dropped completely from the sample because they reported no social interactions during the entire 21 days.

In addition, because alcohol use was the major outcome in this study, participants who abstained from alcohol during the entire reporting period were dropped from the sample, making the final sample 65 participants (15 men and 50 women). This is commonly done in daily process studies of alcohol use (e.g., Mohr et al., 2008); however, the amount of abstainers was somewhat higher than what would be expected in a college student sample. For example, national data suggests that approximately 80% of college students drink alcohol (Hingson et al., 2005); therefore, the 35% abstaining rate found in this study was slightly higher, resulting in a larger sample loss than expected. Analyses were conducted to determine whether the 35 excluded participants differed from the included participants. Results indicated that participants did not differ on individual

differences unrelated to alcohol use; however they did differ on all alcohol-related measures. Specifically, participants who were included had significantly higher AUDIT and convivial drinking scores, and had more positive alcohol expectancies and views of typical heavy drinkers. See Table 5 for complete *t*-test results.

*Social interactions.* The final sample provided 1013 days of data, the mean amount of survey days per participant was 15.58 ( $SD = 4.92$ , participant's daily survey days ranged from 3 - 22). During the days they completed the diaries, participants reported on 1264 social interactions with a mean 19.49 interactions per participant ( $SD = 9.12$ , number of interactions reported ranged from 3 - 46). Most participants reported on only one social interaction per day (80%), with the maximum number of social interactions reported per day being five (only 1 participant reported this). Most interactions lasted longer than 1 hour (66.5%) and were slightly more often with mixed gender interactants (56.6%) as compared to single gender (43.5%).

*Alcohol use.* Participants consumed at least one alcoholic beverage during 15% of the total social interactions that were reported across the participants. Participants drank an average of .56 drinks across all interactions ( $SD = 1.70$ ; Mode = 0, scores ranged from 0-11). However, during interactions in which they did drink, participants consumed an average of 3.81 drinks ( $SD = 2.70$ ; Mode = 1, range from 1-11) and 32% of drinking interactions across all participants involved consumption of five or more drinks. Participants drank beer 33.9% of the time, wine 3.8%, liquor 36.6% and a combination of types of alcohol 25.8% of the time.

Participants reported at least one negative consequence from drinking on 5% of the diary days, with the most frequently reported being feeling bad about oneself (35% of

total consequences reported), and the least often being driving under the influence (3% of total consequences reported). Other negative consequences included being unable to remember what happened to them while they were drinking (19% of total consequences reported), failing to do what was expected of them (20% of total consequences reported), having unplanned sex (12% of total consequences), and having sleep and appetite problems (11% of total consequences). Overall, 51% of participants reported experiencing at least one negative consequence over the course of the study.

### *Model Results*

*Unconditional model.* To determine how much variability in drinking can be explained by within versus between person differences, an Intraclass Correlation was calculated (using the residual components of Equations 1 and 2), and indicated that 7% of the variability in drinking was due to differences between people, while 93% was due to within-person differences. The within-person variability was quite high; this number could be inflated due to removing participants from the analysis who abstained from drinking during the study. It also indicated that the mean drinking level ( $Y_{00}$  in Equation 2) was significantly different from 0 ( $p = .000$ ).

*Research question 1.* The model testing the effects of the situational IM and Alcohol Norms indicated that, similar to Study 1, increasing amounts of alcohol cues during an interaction was associated with an increase in the estimated rate of alcohol use for that interaction,  $ERR = 1.79, p = .000$ . Therefore, a 1 point increase in alcohol norms (e.g., 1 more person or cue in the immediate social environment) increases the number of drinks consumed by 79%. Neither the situational IM variable nor the IM x Alc Norms

interaction was significant in the model, therefore Hypothesis 1 was not fully supported. Full results are presented in Table 6.

*Research Question 1a.* To test research question 1a, several preliminary models were constructed before a final model was chosen (the results from these preliminary models are not reported in the table). First, the dispositional IM variables (self-consciousness, self-monitoring, fear of negative evaluation) were added to the Level 1 model reported in research question 1. Self-monitoring was the only variable that contributed to the explanation of alcohol use; therefore, it was the only impression motivation individual differences variable retained for the final model.

The next model was constructed by adding the three alcohol-related individual differences variables at Level 2. The alcohol prototypes variable did not contribute to the explanation of alcohol use as there were no significant main effects or interactions involving this variable, therefore it was removed from the model; alcohol expectancies and convivial drinking were retained.

The final trimmed model results are presented in Table 6, and included only the individual differences variables that were significant in the preliminary models described above to make the model more parsimonious. None of the dispositional/individual differences (convivial drinking, self-monitoring, AEQ) variables had a main effect on drinking. There was also no main effect of situational IM on drinking and none of the individual differences variables moderated the effect of situational IM on drinking. Therefore, part of Hypothesis 1a was not supported, as there was no interaction between IM and self-monitoring or convivial drinking.

The alcohol norms variable had a main effect on alcohol use and there were several two-way interactions involving the Alcohol Norms variable, partially supporting the predicted two-way interactions in Hypothesis 1a. For example, convivial drinking and the AEQ moderated the relationship between Alcohol norms and drinking and there was an interaction between Alcohol Norms and IM. However, these significant two-way interactions were qualified by several significant three-way interactions. There were no specific hypotheses related to these three-way interactions because there were no significant three-way interactions found in Study 1, but they were investigated further for exploratory purposes.

First, the IM X Alcohol Norms X convivial drinking interaction was significant. This interaction is depicted in Figure 9. As seen in the pattern of results, high convivial drinking led the interaction between alcohol norms and IM to become much more extreme. For example, high convivial drinkers with a low situational alcohol norm sharply decreased their alcohol use as concerns about managing their impressions increased. High convivial drinkers who were exposed to high alcohol norms only slightly increased their alcohol use as impression motivation increased, but overall they were not as affected by impression motivation as compared to participants with a low alcohol norm. Follow-up tests were conducted by centering convivial drinking at 1 *SD* above and below the mean. These tests indicated that the interaction between alcohol norms and IM was significant at mean and high convivial drinking levels ( $p < .05$ ), but not at low levels of convivial drinking ( $p > .05$ ).

There was also a three-way interaction between IM, Alcohol norms, and the AEQ. See Figure 10 for a presentation of this interaction. Those with low alcohol norms appear

to drink less overall than those with high alcohol norms. However, it appears that increases in impression motivation pressures increase drinking for those with high alcohol norms and decrease drinking for those with high low alcohol norms. High alcohol expectancies appear to strengthen this pattern, in that this pattern was slightly more extreme for those with high alcohol expectancies. Follow-up tests were conducted by centering the AEQ at 1 *SD* above the mean and 1 *SD* below the mean. These tests indicated that that interaction between alcohol norms and IM was significant at high and mean AEQ levels ( $p < .05$ ), but not low AEQ levels ( $p > .05$ ).

*Research Question 2.* To investigate how AUDIT scores are related to alcohol use behavior during social interactions, the same model as described in Hypothesis 1a was constructed, but the AUDIT replaced the individual differences alcohol use variables. There were only significant main effects for the AUDIT and Alcohol Norms variables. Higher AUDIT scores and Alcohol Norms during a social interaction were associated with an increase in the estimated rate of alcohol use for that interaction (ERRs = 1.12 and 1.74 respectively). The AUDIT did not moderate the relationship between any of the Level 1 variables or the interaction term and drinking, therefore, Hypothesis 2 was not supported. Full model results are depicted in Table 7.

*Research Question 3.* Finally, to investigate whether alcohol norms and IM are related to heavy drinking, a model was constructed first with only the Level 1 variables. In this model, both IM ( $OR = 3.22, p = .02$ ) and Alcohol Norms ( $OR = 2.79, p = .000$ ) were significantly positively related to heavy drinking during social interactions. The IM X Alcohol Norms interaction was not significant.

Next, the AUDIT was added at Level 2. In this model, there was a significant main effect for Alcohol Norms ( $OR = 2.80, p = .001$ ) and there were also significant two-way interactions (AUDIT X IM:  $OR = 1.41, p = .001$ ; AUDIT X Alc Norms:  $OR = 1.14, p = .04$ ). However, these were qualified by a significant three-way interaction (AUDIT X IM X Alc Norms:  $OR = 1.11, p = .02$ ).

The interaction is presented in Figure 11 and the full model results are presented in Table 8. The AUDIT scores had an effect on the interaction between Alcohol Norms and IM, in that for those with high AUDIT scores, high impression motivation and strong alcohol norms sharply increased the likelihood of heavy drinking during social interactions. There was not such a sharp increase in the odds of drinking heavily due to impression motivation if alcohol norms were low. For those with low AUDIT scores, impression motivation did not seem to be affected by alcohol norms in relation to heavy drinking during social interactions. When examining the probability of heavy alcohol use occurring, participants with low AUDIT scores had a .0004 probability of drinking heavily during social interactions if they reported low impression motivation and low alcohol norms and a .91 probability if they reported high impression motivation and high alcohol norms. However, the probability increases for those in the high AUDIT group to .21 and 1.00 respectively.

Follow-up tests were conducted to further investigate this three-way interaction by centering the AUDIT at 1 *SD* below the mean and 1 *SD* above the mean. These tests indicated that the IM x Alcohol Norms interaction was not significant at low or mean AUDIT levels ( $p < .05$ ), however the interaction was significant at high AUDIT levels ( $p < .05$ ).

## CHAPTER VIII

### DISCUSSION

This daily diary study investigated self-presentational processes and alcohol use among college students under the age of 21 using the two-component model of impression management (Leary & Kowalski, 1990). Three main research questions were investigated, the first two of which were meant to replicate findings from Study 1 and the third meant to specifically address heavy alcohol use during social interactions.

#### *Research Question 1 and 1a*

The first research question dealt with the situational impression motivation and construction variables. The findings confirm those of study one in that strong alcohol norms (i.e., situational alcohol construction) significantly increased the likelihood of alcohol use occurring during a social interaction. This extends the findings of Study 1 to actual alcohol use.

In question 1a, the dispositional variables were investigated. However, in contrast to Study 1, there were significant three-way interactions between the situational impression management variables and convivial drinking as well as alcohol expectancies. It is unclear why there were not any three-way interactions found in the first study; perhaps the normative alcohol information became much more relevant to low and high impression motivation situations because actual alcohol in real social interactions was being investigated in this study as compared to the lab setting in the first study. In the first study, participants were asked about social information, but were not in a typical

socially interactive situation, which was what study two participants were reporting on. Instead, study one participants were presenting information in a computer-mediated fashion. It could be that in study two, norms become much more informative in guiding behavior when there were impression motivation concerns because an actual social situation was being investigated. At any rate, a strength of multilevel modeling is that it allows one to look at how individual differences factors affect the contextual level variables, which in this case represent social interactions. Therefore, how individual differences like alcohol expectancies affect pressures during social interactions to affect alcohol use behavior can be investigated.

In this study, convivial drinking affected the strength of the pattern of the interaction between alcohol norms and IM. For example, for those with low alcohol norms in social interactions, their alcohol use decreased as impression motivation pressures increased. However, this effect was much stronger for high convivial drinkers. Interestingly, for those who were high convivial drinkers, the heaviest drinkers in social interactions were those who reported low impression motivation concerns and low alcohol norms. Similar to study one, these findings suggest that people who have heavy social drinking patterns, and low pressures to manage their impressions, will be more likely to present themselves as alcohol users. Interestingly, this was the case in Study 2, even when the alcohol norms were low. This finding suggests that people who have heavy drinking patterns in social situations, but aren't too concerned about what their peers think of them drink more despite the normative information available to them. However, as their concern about how their peers view them increase, their drinking sharply drops off. This indicates that heavy social drinkers might be concerned that they

are drinking too much because of the low norms information in the environment and they may have to adjust their self-presentation to that of a less heavy drinker when they are concerned about how their peers view them. As mentioned earlier, it could be that the impression motivation and construction factors interacted to affect alcohol use in study two, but not study one, because actual social interactions were being investigated.

In contrast, alcohol expectancies seemed to operate slightly differently on the situational impression management components than convivial drinking. In this case, for those with high alcohol norms, alcohol use increased as impression motivation concern increased. The opposite pattern was true for those with low alcohol norms; alcohol use decreased as impression motivation increased. This finding is in line with the original predictions of the study in that as impression motivation and alcohol impression construction increased, alcohol use increased. This was particularly the case for people with high positive alcohol expectancies. This suggests that students were drinking to impress peers during social interactions, especially if they felt that alcohol would have a positive effect on them. Therefore, they were able to confirm their desired identity in this case.

Participants with high positive alcohol expectancies seemed to pay more attention to environmental information (e.g., norms and impression motivation), however high convivial drinkers tended to pay more attention to environmental information only in extreme cases (e.g., when impression motivation was high and alcohol norms were low). The pattern of findings may have differed between alcohol expectancies and convivial drinking for several reasons. First, the alcohol expectancies measure tends to tap into moderate drinking, while the convivial drinking measure is specific to heavy drinking

(O'Hare, 1997). Second, alcohol expectancies can be based on observations of others' drinking, while convivial drinking is based on one's own drinking (O'Hare, 1997). As a result, people with high positive alcohol expectancies are likely not as concerned about their drinking in front of peers in situations with high impression motivation and strong alcohol norms because they have based their expectancies about drinking on observations of other people and their drinking patterns may not necessarily be dangerous. Conversely, high convivial drinkers may especially be concerned about their drinking in front of other people that they want to impress because heavy drinking in social contexts has been linked to an increase in negative consequences (e.g., fights). They may not want to incur these negative consequences in front of people they want to impress, thus their alcohol use drops when they want to impress people who aren't displaying high alcohol norms.

#### *Research Question 2*

Research question two investigated how the AUDIT may moderate situational impression motivation and alcohol use during social interactions. The AUDIT did not moderate the situational variables, and therefore, results did not replicate those of Study 1, in which the AUDIT moderated the relationship between IM and alcohol self-presentation and alcohol norms and self-presentation. The AUDIT and alcohol norms variables did have a main effect on alcohol use though, in that they were positively related to alcohol use. This suggests that the AUDIT is a good predictor not only of drinking over the past year, but also of daily drinking.

#### *Research Question 3*

The final research question investigated self-presentational processes and heavy drinking. Five or more drinks have been commonly used as a cut off for heavy episodic

drinking (Wechsler, Davenport, Dowdall, Moeykens, & Castillo, 1994) and has been associated with a variety of acute negative consequences (e.g., fights, injuries) when compared to non-heavy episodic drinking (e.g., Kuntsche, Plant, Plant, Miller & Gemel, 2008; Wechsler et al., 1994). Findings suggested that for those students with a high AUDIT score and strong environmental alcohol norms, high impression motivation increased the likelihood that heavy alcohol use would take place. This suggests that while the AUDIT is a useful tool in identifying heavy drinkers, impression management processes may also contribute to heavy drinking. Students who were concerned about impressing their peers used the normative information in their environment as well as their self-concept (e.g. prior drinking patterns) to guide their heavy drinking patterns during social interactions. Participants likely gained some inter- and intra-personal rewards by presenting themselves as a heavy drinker; unfortunately, by doing this, they may be putting themselves at risk to experience negative consequences like injuries and feeling bad about themselves. This confirms the findings of Simons et al. (2004) in which participants who indicated that they had self-presentational strivings (e.g., tried to present themselves certain ways) over a seven day period had more alcohol related problems. In the second research question (discussed above), the AUDIT did not moderate the relationship between situational impression management processes and alcohol use; therefore, at least in self-presentational alcohol use during social interactions, the AUDIT seems to be more useful when investigating heavy alcohol use in social situations, rather than overall alcohol use.

### *Limitations*

While this study provided further evidence for the importance of self-presentational processes in alcohol use, there are some limitations that must be mentioned. First, in this study, the sample included only a small number of male participants. Therefore, these findings may only be generalizable to female college students under 21. Gender roles can determine self-presentational behavior during social interactions (Deaux & Major, 1987; Leary, 1995). For example, women may particularly be concerned about appearing “unfeminine” (Pliner & Chaiken, 1990), as such, it has been suggested that traditional female gender roles may lead women to drink less (e.g., Huselid & Cooper, 1992). Further, one study suggested that men believed if they *did not* choose alcohol, they would be judged less positively (e.g., less friendly) by their peers; while women believed if they *did* select alcohol they would be judged less positively in a social situation (Corcoran & Michels, 1997). This may explain why, in some of the analyses, alcohol self-presentation increased when impression motivation concerns were low, as a majority of the samples from both studies were female. However, some research suggests that women may use alcohol to make friends and form relationships more than men (LaBrie et al., 2008). This may explain why the effects of impression motivation and norms on self-presentation were strong in some cases-women may especially recognize the opportunity to form social bonds via alcohol self-presentation. More research should be conducted to determine if gender roles affect the alcohol self-presentation investigated in this study.

Another limitation in this study was that a large portion of participants were excluded from data analysis because they did not drink alcohol over the three-week study period. The portion of participants that were excluded was larger than what national

statistics suggest (80% of college students drink versus the 65% found in this study). It could be that because the study was conducted during their first 6-8 weeks on campus, students' drinking attitudes and patterns had not yet been established to reflect normative college drinking. Indeed, participants who were not retained in the dataset had less positive alcohol expectancies and views of heavy drinkers, and had lower reported expected heavy drinking in social situations as well as lower drinking patterns and consequences. Therefore, this study seemed to have only captured students with established drinking attitudes and patterns. Future research should investigate when and how drinking patterns are established among first-semester college freshman in order to determine how impression management processes may affect initial drinking among college students. Alternatively, it could be that three weeks was not a long enough period to capture alcohol use behavior for this specific age range of college students; a longer reporting period may be needed later into the semester.

An additional limitation is that no information was collected on whether participants in this study were interacting with new people, familiar people, or a combination. Participants may react differently if they are interacting with a majority of people that they are interacting with for the first time, versus a generally familiar group of people. This could explain the differences in the results between study one and study two in that in study one, participants were consistently put in a situation in which they thought they were interacting with new people, while study two could have reflected social interactions with more familiar people. Future research should investigate how familiar versus unfamiliar people in the environment may affect self-presentational alcohol use behavior.

Finally, this study was correlational in nature and therefore, even though reporting periods are much less retrospective than that of a traditional cross-sectional or longitudinal study, the temporal nature of the processes is still unknown. For example, it could be that drinking increases impression motivation and perception of alcohol norms. While Study 1 does provide some preliminary evidence of a causal process in which impression management processes lead to alcohol use, future research will be needed to confirm this.

## CHAPTER IX

### GENERAL DISCUSSION

Underage alcohol use among college students is a concern due to the possibility of negative consequences that could occur as a result of drinking (Hingson et al., 2005). Overall, two studies have supported the suggestion that indirect social pressures are important in explaining alcohol-related behaviors (Borsari & Carey, 2003). In particular, these findings call into question the suggestion that alcohol use among young adults is passive and deviant (see Sharp & Getz, 1996). To the contrary, these studies suggest that students are actively using alcohol (or actively not using it in some cases) to manage their impressions in order to be part of social groups to fulfill important intra- and interpersonal goals (Leary, 1995). While alcohol use could clearly be dangerous for underage college students due to a possibility of negative consequences occurring, alcohol use is not necessarily deviant if it fulfills self-presentational goals like fulfilling the need to belong, maintaining self-esteem, and maximizing reward cost ratios in social relations (Leary, 1995; Leary, 2001; Schlenker, 1980). In general, results from two studies confirm previous research that self-image concerns are related to alcohol use behavior in social situations (e.g., Chassin et al., 1985; Martin-Ginis & Leary, 2004; Martin & Leary, 2001)

#### *Implications*

*Impression motivation.* Previous research suggests that high impression motivation (or constructs related to it) is important for self-presentational behavior (Leary

& Kowalski, 1990). In Study 2, this especially seemed to be the case when alcohol norms were high and drinking-related patterns were strong. However, these studies also highlighted the importance of considering situations in which impression management concerns are low. For example, in Study 1, results suggested that if participants were more likely to drink heavily during social situations, low impression management concerns lead to a higher likelihood of alcohol self presentation. Overall, the results of these studies suggest that other factors (e.g., norms and individual differences) must be considered along with impression motivation concerns, as these seem to be important in determining whether low or high impression motivation will lead to self-presentational alcohol behavior. Impression motivation (both situational and dispositional) did not contribute to the explanation of alcohol use self-presentation alone.

*Impression construction.* Alcohol construction factors also have been implicated in contributing to self-presentational behavior in previous research (Leary & Kowalski, 1990). The effect of situational alcohol norms and impression motivation depended on factors related to the self-concept and desired identity. Specifically, alcohol expectancies, social drinking patterns, and general drinking patterns were posited to be an indicator of how alcohol fits into the self-concept and desired identity. For example, people may value drinking as part of their social identity if they tend to drink heavily in social situations. It appeared that if participants had a chance to validate this identity, they did, but they were careful about doing so if the situation didn't call for it. Immediate peer alcohol norms also played a large role in determining alcohol self-presentation, both alone and in conjunction with the motivation component. While much of the social norms literature focuses on broader campus norms (e.g., most students on this campus only have

two drinks when they drink alcohol; Perkins, 2003), these studies suggest that the immediate social environment is strongly related to whether someone presents themselves as an alcohol user. Further, these immediate normative environments can shape broader campus perceptions, as seen in the manipulation checks in Study 1 (e.g., students in the alcohol norm condition changed their perceptions about campus drinking norms). Therefore, while normative messages that attempt to change college students' normative perceptions about campus drinking may be somewhat effective in curbing heavy drinking; these messages have to compete with the immediate situational norms that are shaping college students' behavior, attitudes, and normative perceptions.

*Two-component model of impression management.* In addition, these studies have confirmed that the two-component model of impression management is useful in the explanation of alcohol use among young adults. Importantly, the model served to integrate the literature on alcohol use behaviors. For example, social norms, alcohol expectancies, impression management, personality factors, and alcohol-related individual differences have all been integrated using the two-component model of impression management. Results suggest that alcohol expectancies, self-monitoring, previous drinking patterns, and social drinking patterns affect how underage college students respond to normative alcohol information and pressures to present the self in desired ways. However, the impression construction factors seemed to be more important than the impression motivation factors. On their own, the impression motivation factors did not help to explain alcohol self-presentation; while the impression construction factors did. Therefore, the model as applied to alcohol use may need to be re-conceptualized to reflect the importance of the construction factors (e.g., norms, convivial drinking) and the

interaction between the motivation and construction factors. It could be that the construction factors are more important because they are made of up variables that are important to self-concept, desired identity, and social roles (Leary, 1995). These factors may have a particularly strong effect on behavior because people do not like to deviate too far from their true selves and in most cases realize that they must choose the appropriate social self to present based on their identity and the social roles that are most appropriate. While this study did confirm that it is useful to view the impression motivation and construction factors as separate contributors to self-presentational behavior, there appears to be some interaction between them that should be accounted for in future research using the model. For example, high convivial drinkers decreased their drinking as impression motivation increased when alcohol construction cues were low. In addition, there are cases when the dispositional and situational factors conflict for a component of the model (e.g., low alcohol norms in the environment, but high individual patterns of convivial drinking). Future research should determine how conflicting component factors are dealt with in social interactions.

Finally, the two component model is powerful because it takes into account both situational and individual differences factors that are related to alcohol use behavior and these studies confirm that both of these factors are important to consider. Other approaches to the study of alcohol use (e.g., norms) have not tended to integrate both factors, and this seems to be an important research direction that should be pursued.

*Prevention and interventions.* While more research should be done on the link between impression management processes and alcohol use behavior, the findings from these studies could have implications for the prevention of heavy alcohol use among

underage college students. Findings could help to guide such efforts by helping to identify students that may benefit from individualized interventions. For example, college students could perhaps first be identified for prevention or intervention programs by screenings for heavy drinking patterns (e.g., convivial drinking, AUDIT) during their first semester on campus and then could be referred to an individualized intervention program. Personalized feedback interventions that incorporate motivational interviewing have been successful in reducing drinking among college students (e.g., Larimer & Cronce, 2007; Neal & Carey, 2004). In such interventions, students typically receive personalized feedback (via computer, mail, or in person) about their own alcohol consumption as compared to the normative campus standard in an attempt to cause a discrepancy between the self and others. Such a discrepancy should decrease drinking patterns according to this approach. These interventions seem to target some of the impression construction processes related to self-presentational alcohol use. For example, even though students may be exposed to high alcohol norms in particular social situations, personalized norms interventions could remind students that such behavior is not a norm on the larger campus. However, as this study suggests, there are additional social components important to drinking behavior as evidenced by the impression motivation effects. Therefore, such personalized feedback programs might benefit from an additional component that targets impression motivation processes. To target this component, participants could be encouraged to think about how alcohol use may negatively affect their personal strivings (e.g., I want to get good grades) in order to potentially counteract the positive effects that students may perceive alcohol to have on their social strivings (e.g., I will impress my peers by drinking) by creating a discrepancy between personal

and social strivings. While building skills to counteract students' impression motivation processes might be an important direction to pursue for intervention purposes, the studies reported here don't suggest a clear case in which to proceed. It is unclear if increasing or decreasing impression motivation would be effective as findings suggested there are at least some cases in which low impression motivation might increase alcohol self-presentation, and other cases in which high impression motivation might increase alcohol use.

Another way to approach interventions based on social-image is to prompt students to think about a time when they (or perhaps a friend) did not make a good impression on others due to drinking heavily (e.g., tripping and falling, saying something embarrassing, getting into a fight). Research will be needed to examine if such an approach might be useful in decreasing heavy drinking, however there is evidence that such an approach may be useful. For example, Jones and Leary (1994) found that, among young adults, stressing the negative effects of sun exposure on appearance may under some circumstances be more effective in reducing risky sun exposure than stressing the negative health consequences. Therefore, it might be helpful to remind students that desired impressions are not always made when drinking alcohol, rather than stressing the negative consequences that they might encounter as a result of drinking (e.g., driving under the influence), which may not be as effective.

### *Future Directions*

These studies have opened up several interesting areas for future research. First, the intersection of impression management and perception would be a fruitful area of investigation. For example, how does the perceived success of alcohol self-presentation

affect future alcohol use? In other words, did others perceive my alcohol self-presentation positively? Did such presentation help to make the impression that was intended? How these perceptions serve to increase or decrease alcohol use should be studied.

Second, more research should focus on situations that create low impression motivation. These studies suggest that both low and high impression motivation are related to alcohol use depending on individual differences and alcohol norms, therefore, low impression motivation and its relation to alcohol use deserves more attention.

Third, it is unclear which of the factors that lead to situational impression motivation may be more important for impression motivation processes and alcohol use. For example, do goal relevance (publicity, dependency on target, future contact), value of desired outcomes (powerful, high status, attractive or likeable people), or image discrepancy alone affect impression motivation in different ways? How does each of these separately affect self-presentational alcohol use? Is one more important than the other? The current studies focused on a combination of these concerns, therefore future research should be done to determine the effect of these concerns separately and in different combinations.

Fourth, in the studies reported, only general motivational processes were studied. For example, in Study 1, general impression motivation processes were primed, rather than priming a specific impression to be made (e.g., be cool). In Study 2, specific impressions during social interactions were not investigated (e.g., how attractive did you want to appear during the interaction?). Previous research has identified that alcohol is used to make specific types of impressions (e.g., attractiveness; O'Grady et al., 2008),

therefore, the role of these specific concerns should be further investigated in light of the results reported here.

Fifth, previous research suggests that heavy alcohol use results from self-regulatory failure. For example, low self-control has been linked to heavy drinking (Hull & Sloan, 2004). Alternatively, the studies reported here suggest that controlling the self during social situations, rather than a failure to regulate the self, is also related to alcohol use behavior as self-regulation may be necessary to control the self-presentational processes discussed in these studies. However, it is unclear how alcohol use affects impression management processes. As alcohol use increases, perceptual and cognitive functioning is negatively affected (Steele & Josephs, 1990). In particular, it has been suggested that alcohol causes “nearsightedness” in social situations. This could mean that students pay more attention to motivation and construction factors in social situations as a result of drinking. In addition, when self-presentational behavior runs counter to familiar patterns, it consumes self-regulatory resources and impairs subsequent self-regulation (Vohs, Baumeister, & Ciarocco, 2005). Therefore, someone who typically has heavy drinking patterns, who must present themselves as a non-heavy drinker due to indirect social pressures, would likely use up more self-regulatory resources than someone who had non-heavy drinking patterns. If self-regulatory resources are utilized to present the self as a non-heavy drinker, this could actually lead to heavy use once the self-regulatory resources being used to present the self as a non-heavy drinker are depleted. Therefore, research is needed to determine how alcohol use affects self-presentational resources.

Finally, developmental trajectories in self-presentational alcohol use deserve attention. For example, it has been suggested that self-presentational concerns increase

from early to late adolescence and are especially salient during late adolescence and young adulthood (Chassin, Tetzloff, & Hershey, 1985; Martin, Leary, & O'Brien, 2001; Pledgler, 1992). Therefore, how impression motivation and construction processes change as young adults develop should be investigated. Further, how alcohol use is affected by any changes in these processes due to development should be determined. Research suggests that alcohol use increases during young adulthood, peaks, and then decreases during the transition into adulthood (e.g., Maggs & Schulenberg, 2004/2005). It might be important to determine whether impression management concerns also have similar trajectories and if this might contribute to at least some of the decreases in alcohol use in adulthood.

### *Conclusions*

In two studies, impression motivation and impression construction factors were investigated in their relation to alcohol use behavior using the two-component model of impression management (Leary & Kowalski, 1990). Findings suggest that situational alcohol norms are important in the explanation of alcohol use. In addition, motivations to manage impressions are affected by drinking patterns (overall and social), self-monitoring, situational norms, and alcohol expectancies when determining their effect on alcohol-related behavior. Overall, these studies confirm that individual difference and situational factors should be taken under consideration when studying alcohol use, and indirect social pressures (as opposed to direct peer pressure) greatly affect drinking behaviors. These studies also confirm the importance of considering interpersonal factors, particularly social image factors, in the study of alcohol use behavior, which have tended to be overlooked in traditional health behavior models.

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Table 1

*Means for individual differences variables for participants retained versus those who were removed from data analysis for Study 1*

	Retained ( <i>N</i> = 232)	Non-Retained ( <i>N</i> = 56)	
Variable	<i>Mean</i>	<i>Mean</i>	<i>t</i> value
Self-Monitoring	4.23	4.17	.66
Fear of Negative Evaluation	27.27	32.12	.02
Public Self-Consciousness	23.37	24.58	-1.92
AEQ	2.36	2.39	-.57
AUDIT	6.22	8.01	-2.73*
Drinking Contexts	27.94	29.85	-1.28
Alcohol Prototype	2.58	2.68	-1.34

\**p* < .05

Table 2

*Descriptive statistics for individual differences variables in Study 1 and 2*

Variable	Study 1 (N = 232)		Study 2 (N = 65)	
	Mean	SD	Mean	SD
Self-Monitoring	4.23	.51	4.31	.57
Fear of Negative Evaluation	27.27	5.55	28.92	7.42
Public Self-Consciousness	23.37	4.11	24.33	4.72
AEQ	2.36	.32	2.42	.27
AUDIT	6.22	5.17	6.53	3.99
Drinking Contexts	27.94	10.01	30.83	6.44
Alcohol Prototype	2.58	.46	2.66	.40

Table 3 Logistic regression results for Hypothesis 1 (Model 1) and 1a (Model 2)

	B	SE (B)	OR	Wald	R <sup>2c</sup>	-2 LL <sup>d</sup>
<b>Model 1</b>						
<i>Step 1</i>					.07	303.69***
Alcohol Norms <sup>a</sup>	.95	.28	2.58	11.77***		
IM <sup>b</sup>	-.09	.27	.92	.102		
<i>Step 2</i>					.07	303.24
Alcohol Norms	.87	.40	2.40	4.78**		
IM	-.15	.36	.86	.17		
Alcohol Norms x IM	.14	.55	1.15	.06		
<b>Model 2</b>						
<i>Step 1</i>					.01	309.96
Public SC	.04	.04	1.04	.84		
Fear of Neg Eval	-.02	.03	.98	.35		
Self-Monitoring	.18	.27	1.20	.45		
<i>Step 2</i>					.01	309.67
Public SC	.04	.04	1.04	.89		
Fear of Neg Eval	-.02	.03	.98	.39		
Self-Monitoring	.19	.27	1.20	.47		
IM	-.15	.27	.87	.29		
<i>Step 3</i>					.49	207.27***
Public SC	.07	.05	1.07	1.49		
Fear of Neg Eval	-.07	.04	.94	2.78*		
Self-Monitoring	.25	.35	1.29	.52		
IM	-.13	.35	.88	.13		
AEQ	1.61	.72	5.00	5.03**		
Convivial drinking	.16	.02	1.17	43.58***		
Prototype	-.44	.42	.64	1.10		
<i>Step 4</i>					.55	190.24***
Public SC	.10	.06	1.10	2.72*		
Fear of Neg Eval	-.08	.04	.92	3.68*		
Self-Monitoring	.17	.36	1.18	.21		
IM	-.13	.37	.88	.12		
AEQ	1.59	.72	4.93	4.91**		
Convivial drinking	.18	.03	1.19	44.04***		
Prototype	-.51	.44	.60	1.35		
Alcohol Norm	1.54	.40	4.66	14.95***		
<i>Step 5</i>					.64	163.62***
Public SC	-.01	.12	.99	.01		
Fear of Neg Eval	.03	.09	1.03	.10		
Self-Monitoring	1.95	.92	7.04	4.47**		
IM	.01	.43	1.01	.00		
AEQ	1.47	1.49	4.35	.98		
Convivial drinking	.25	.07	1.28	13.12***		
Prototype	-.88	.80	.41	1.21		
Alcohol Norm	2.78	.71	16.16	15.51***		
AEQ x Alc Norm	2.46	1.78	11.76	1.93		
AEQ x IM	-.48	1.68	.62	.08		
Public SC x AlcNorm	.17	.16	1.11	1.18		
Public SC x IM	.12	.14	1.13	.82		
Self-Monitor x AlcNorm	-.31	1.06	.73	.09		
Self-Monitor x IM	-2.47	1.00	.09	6.06**		
Fear of Neg Eval x AlcNorm	-.08	.12	.92	.45		
Fear of Neg Eval x IM	-.13	.10	.88	1.83		
Prototype x Alc Norm	-1.41	1.13	.24	.24		
Prototype x IM	.81	.99	2.25	.67		
Convivial x AlcNorm	.21	.09	1.24	5.89**		
Convivial x IM	-.16	.07	.86	4.88**		

<sup>a</sup>Alcohol Norm = 1, Control = 0

<sup>b</sup>IM High = 1, IM low = 0

<sup>c</sup>Nagelkerke R<sup>2</sup>

<sup>d</sup>-2 log-likelihood, significance indicates significant decrease in -2LL as indicated by Chi-Square difference test

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

Table 4

*Logistic regression results for Hypothesis 2 in Study 1*

	B	SE (B)	OR	Wald	R <sup>2c</sup>	-2 LL <sup>d</sup>
<i>Step 1</i>					.01	312.04
Public SC	.03	.04	1.03	.63		
Fear of Neg Eval	-.01	.03	.99	.18		
Self-Monitoring	.16	.27	1.12	.37		
<i>Step 2</i>					.01	311.85
Public SC	.03	.04	1.03	.66		
Fear of Neg Eval	-.01	.03	.99	.20		
Self-Monitoring	.17	.27	1.18	.39		
IM	-.12	.27	.89	.19		
<i>Step 3</i>					.45	220.26***
Public SC	.07	.05	1.08	1.99		
Fear of Neg Eval	-.07	.04	.93	3.09*		
Self-Monitoring	.18	.33	1.19	.28		
IM	-.09	.33	.91	.08		
AUDIT	.36	.05	1.43	52.02***		
<i>Step 4</i>					.50	206.00***
Public SC	.10	.06	1.10	3.03*		
Fear of Neg Eval	-.08	.04	.92	3.90**		
Self-Monitoring	.01	.35	1.01	0		
IM	-.10	.35	.90	.09		
AUDIT	.37	.05	1.45	53.30***		
Alcohol Norm	1.31	.36	3.71	13.22***		
<i>Step 5</i>					.58	183.55***
Public SC	-.04	.12	.96	.12		
Fear of Neg Eval	.02	.08	1.02	.08		
Self-Monitoring	.94	.80	2.57	1.40		
IM	-.51	.42	.60	1.50		
AUDIT	.47	.11	1.59	18.75***		
Alcohol Norm	2.12	.52	8.31	16.45***		
Fear of Neg Eval x AlcNorm	-.02	.10	.98	.03		
Fear of Neg Eval x IM	-.14	.09	.87	2.34		
Self-Monitor x AlcNorm	.89	.86	2.43	1.06		
Self-Monitor x IM	-1.79	.85	.17	4.47**		
Public SC x AlcNorm	.07	.13	1.07	.29		
Public SC x IM	.16	.13	1.18	1.67		
AUDIT x Alc Norm	.31	.14	1.27	5.17**		
AUDIT x IM	-.24	.12	1.36	4.39**		

<sup>a</sup> Alcohol Norm = 1, Control = 0

<sup>b</sup> IM High = 1, IM low = 0

<sup>c</sup> Nagelkerke R<sup>2</sup>

<sup>d</sup> -2 log-likelihood, significance indicates significant decrease in -2LL as indicated by Chi-Square difference test

\* $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$

Table 5

*Means for individual differences variables for participants retained versus those removed from data analysis for Study 2*

Variable	Retained (N = 65)	Non-retained (N = 35)	<i>t</i> value
	<i>Mean</i>	<i>Mean</i>	
Self-Monitoring	4.31	4.28	-.201
Fear of Negative Evaluation	28.92	32.03	-1.10
Public Self-Consciousness	24.33	23.57	-.76
AEQ	2.42	2.15	-4.48*
AUDIT	6.53	1.57	-6.82*
Drinking Contexts	30.83	18.91	-8.25*
Alcohol Prototype	2.66	2.30	-4.35*

\* $p < .05$

Table 6

*Final Model results for multilevel model testing hypotheses 1 and 1a*

<b>Variables</b>	<b>ERR(95% CI)</b>	<b>t</b>	<b>p</b>
<b><i>Hypothesis 1</i></b>			
Intercept	.08 (0.06,0.13)	-11.854	.000***
IM <sup>a</sup>	1.20 (0.920,1.55)	1.358	.18
Alc Norms <sup>a</sup>	1.79 (1.69,1.89)	20.22	.000***
IMxAlcNorms <sup>a</sup>	0.96 (0.92,1.01)	-1.548	.13
<b><i>Hypothesis 1a</i></b>			
Intercept	0.08 (0.05,0.11)	-12.86	.000***
Convivial Drinking <sup>b</sup>	1.00 (.93,1.08)	.13	.89
AEQ <sup>b</sup>	1.46 (.39,5.51)	.57	.57
Self-Monitoring <sup>b</sup>	.94 (.47,1.86)	-.19	.85
IM <sup>a</sup>	1.09 (.86,1.38)	.73	.47
Alc Norms <sup>a</sup>	1.80 (1.70,1.91)	20.74	.000***
IM X Convivial Drinking <sup>c</sup>	1.04 (1.00,1.09)	1.88	.06
IM X AEQ <sup>c</sup>	.83 (.37,1.83)	-.48	.63
IM X Self-Monitoring <sup>c</sup>	1.06 (.71,1.58)	.29	.77
Alc Norms X Convivial Drinking <sup>c</sup>	1.01 (1.00,1.02)	2.62	.01**
Alc Norms X AEQ <sup>c</sup>	.80 (.66,.96)	-2.43	.01**
Alc Norms X Self-Monitoring <sup>c</sup>	1.08 (.98,1.19)	1.66	.10
IM X Alc Norms <sup>a</sup>	.95 (.92,.99)	-2.50	.01**
IM X Alc Norms X Convivial Drinking <sup>c</sup>	.99 (.98,1.00)	-2.45	.01**
IM X Alc Norms X AEQ <sup>c</sup>	1.25 (1.10,1.42)	3.45	.001**
IM X Alc Norms X Self Monitoring <sup>c</sup>	.94 (.87,1.00)	-1.81	.06

\* $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$

a = within person effect, b = between person effect, c = cross-level interaction

Table 7

*Multilevel Model results for Hypothesis 2*

<b>Variables</b>	<b>ERR(95% CI)</b>	<b>t</b>	<b>p</b>
Intercept	.08 (.06,.12)	-12.75	.000***
AUDIT <sup>b</sup>	1.12 (1.03,1.23)	2.59	.01**
Self Monitoring <sup>b</sup>	1.03 (.63,1.69)	.12	.90
IM <sup>a</sup>	1.17 (.92,1.49)	1.28	.20
Alc Norms <sup>a</sup>	1.74 (1.65,1.84)	20.97	.000***
Alc Norms X IM <sup>a</sup>	.96 (.92,1.00)	-1.99	.06
AUDIT X IM <sup>c</sup>	1.05 (.98,1.14)	1.36	.17
Self-Monitoring X IM <sup>c</sup>	.91 (.70,1.19)	-.69	.49
AUDIT X Alc Norms <sup>c</sup>	1.00 (.99,1.01)	.18	.86
Self-Monitoring X Alc Norms <sup>c</sup>	1.08 (1.00,1.17)	2.04	.05
Alc Norms X IM X AUDIT <sup>c</sup>	1.00 (.98,1.01)	-.67	.51
Alc Norms X IM X Self-Monitoring <sup>c</sup>	.97 (.91,1.04)	-.86	.40

\* $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$

a = within person effect, b = between person effect, c = cross-level interaction

Table 8

*Multilevel Model results for Hypothesis 3*

Variables	<b>B</b>	<b>SE (B)</b>	<b>OR</b>	<b>t</b>
Alcohol Norms <sup>a</sup>	1.03	.24	2.80	4.16*
Impression Motivation <sup>a</sup>	.18	.34	1.20	.53
AUDIT <sup>b</sup>	.29	.34	1.34	.84
Alc Norm X IM <sup>a</sup>	-.25	.15	.77	-1.65
IM X AUDIT <sup>c</sup>	.34	.10	1.41	3.46**
Alc Norm X AUDIT <sup>c</sup>	.13	.06	1.14	2.15*
Alc Norm X IM X AUDIT <sup>c</sup>	.11	.05	1.11	2.33*

\* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$

a = within person effect

b = between person effect

c = cross-level interaction

## Figure Caption

*Figure 1.* The two-component model of impression management applied to alcohol use.

*Figure 2.* Expected results for Hypothesis 1.

*Figure 3.* Sample alcohol norm (top) and control (bottom) Internet group profiles.

*Figure 4.* Self-monitoring as a moderator of the relationship between situational impression motivation and alcohol self-presentation.

*Figure 5.* Convivial drinking as a moderator of the relationship between situational impression motivation and alcohol self-presentation.

*Figure 6.* Convivial drinking as a moderator of the relationship between situational alcohol impression construction and alcohol self-presentation.

*Figure 7.* Alcohol use patterns and consequences as a moderator of the relationship between situational alcohol impression construction and alcohol self-presentation.

*Figure 8.* Alcohol use patterns and consequences as a moderator of the relationship between situational impression motivation and alcohol self-presentation.

*Figure 9.* Alcohol use as a function of low and high convivial drinking, alcohol norms, and impression motivation.

*Figure 10.* Alcohol use as a function of low and high alcohol expectancies, alcohol norms, and impression motivation.

*Figure 11.* Heavy alcohol use as a function of AUDIT scores, alcohol norms, and impression motivation.

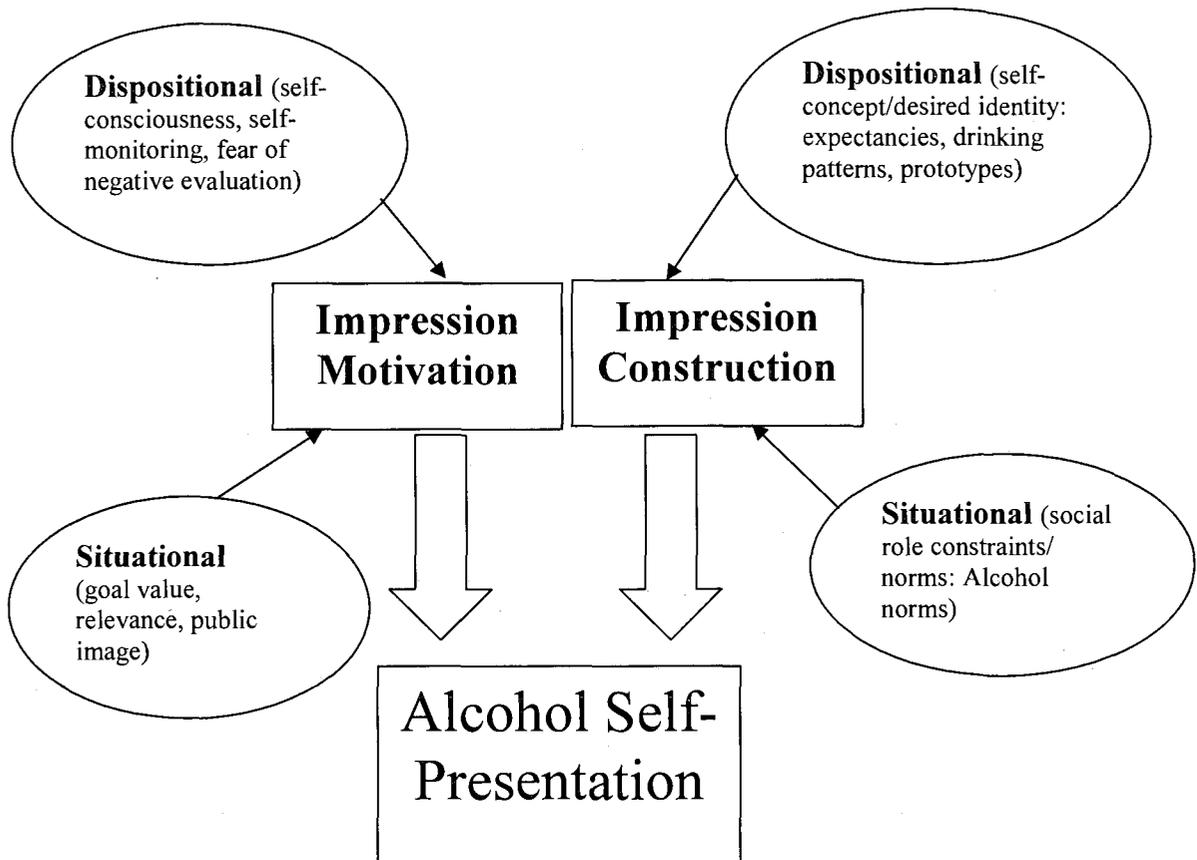


Figure 1

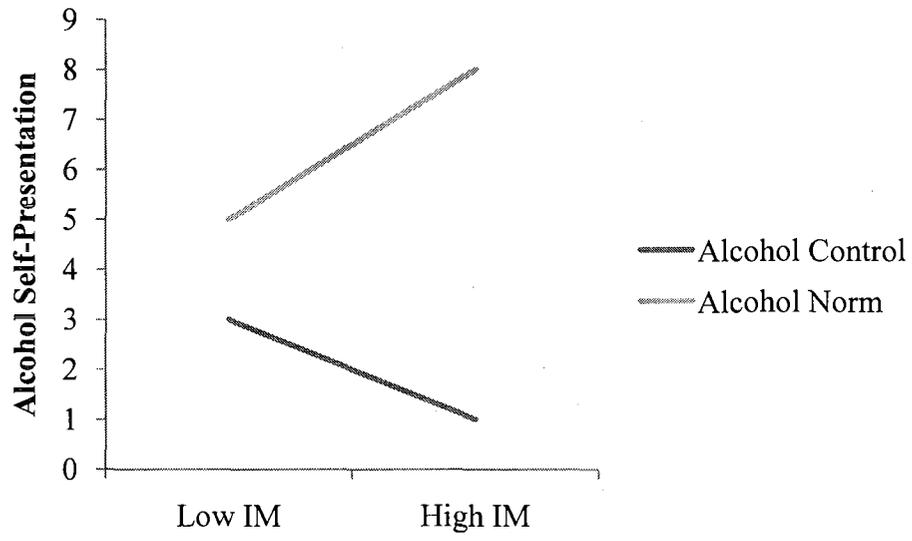


Figure 2

**Background**

*Gender: Male*

*Age: 18*

*Do you smoke cigarettes? Yes*

*Do you drink alcohol? Yes*

*Hometown: Westminster, CO*

*Occupation: Student*

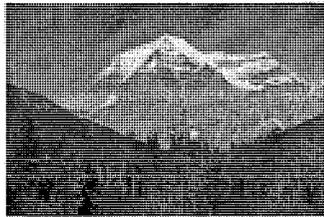
**School**

Colorado State University

**About Me**

I'm PJ and I'm 18 years old born and raised in Colorado. I have a good sense of humor and love being outside in the wild Colorado mountains having fun, drinks made with Jack Daniels, skiing, boarding, biking, camping, hiking, fishing, and hunting. I plan on majoring in Criminal Justice.

**General**



- Snowboarding
- Camping
- Hiking
- Fishing
- Hunting

**Background**

*Gender: Male*

*Age: 18*

*Do you smoke cigarettes? No*

*Do you drink alcohol? No*

*Hometown: Westminster, CO*

*Occupation: Student*

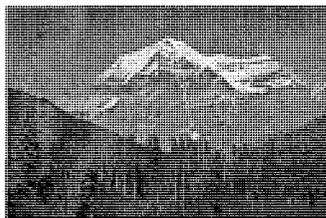
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**General**



- Snowboarding
- Camping
- Hiking
- Fishing
- Hunting

Figure 3

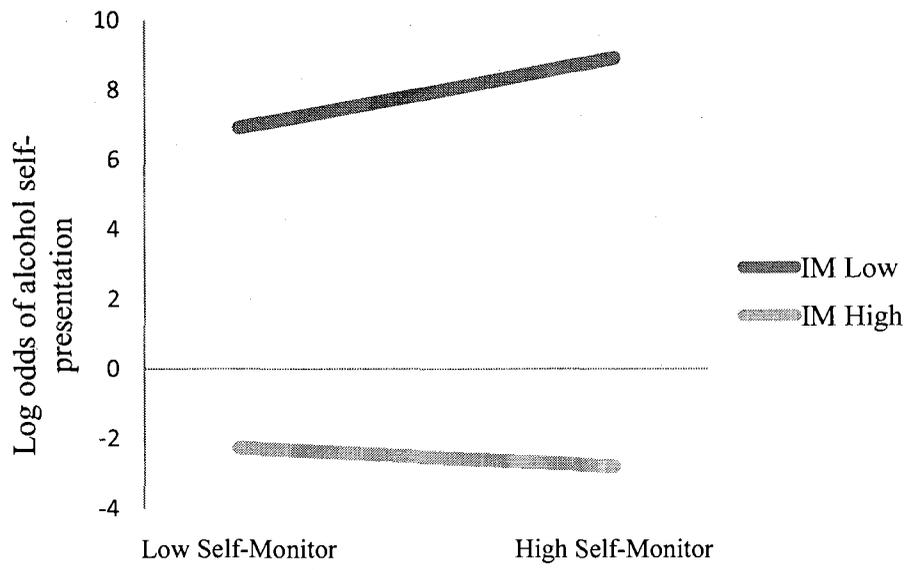


Figure 4

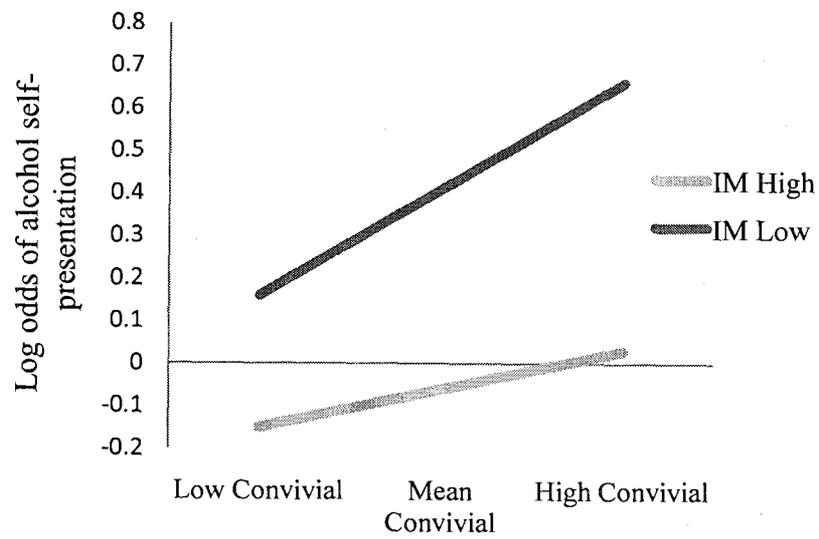


Figure 5

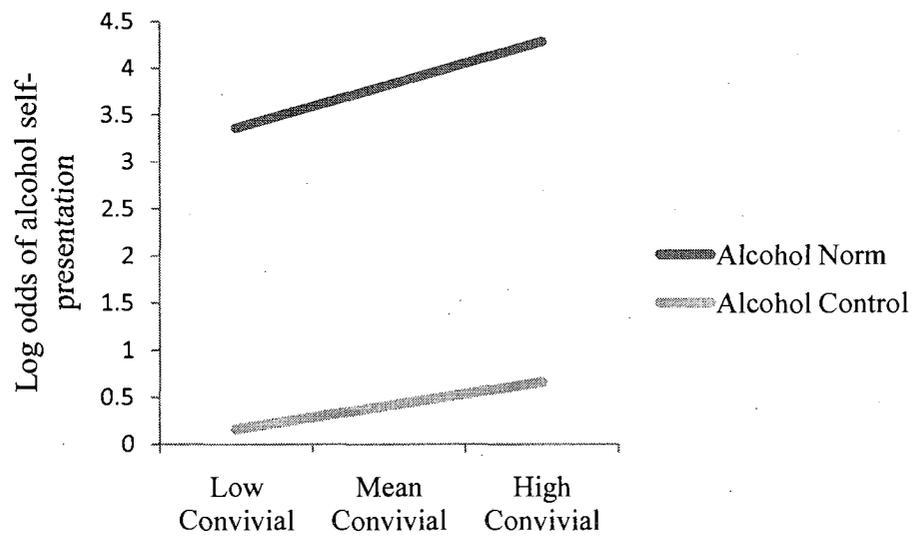


Figure 6

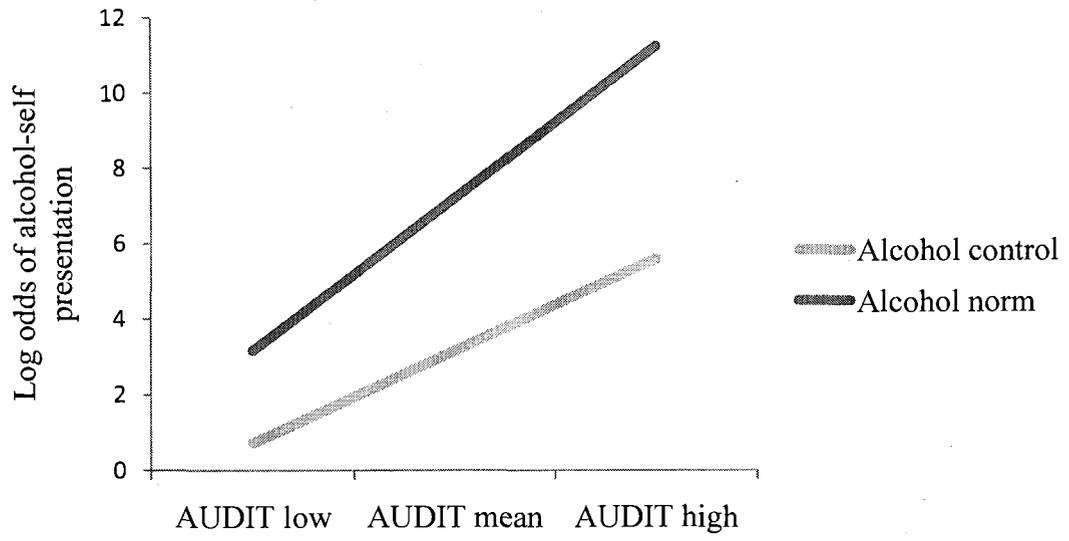


Figure 7

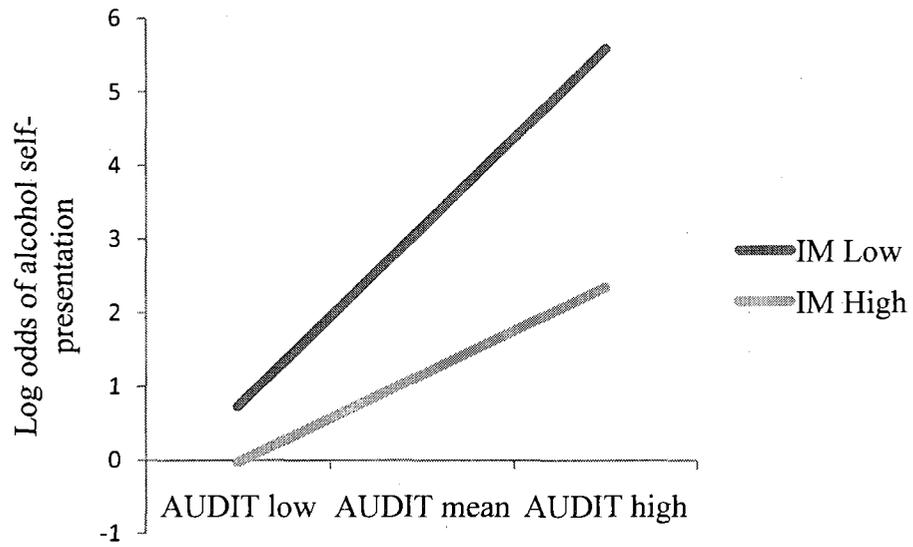


Figure 8

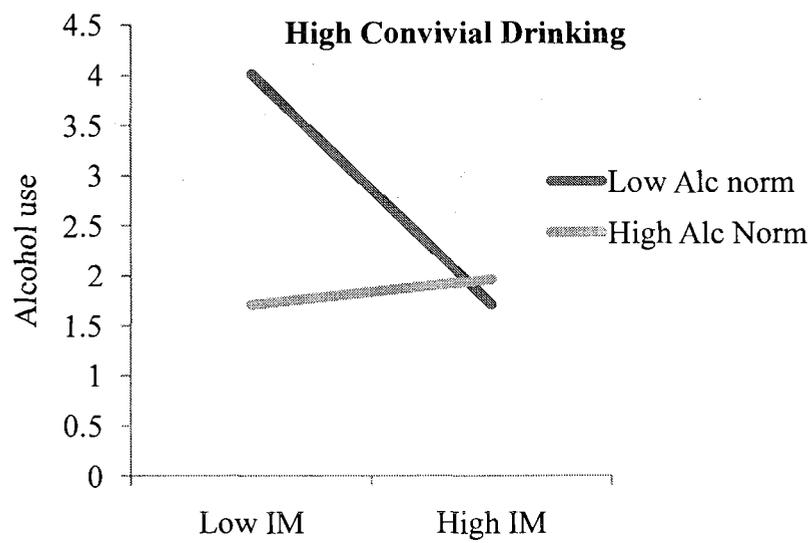
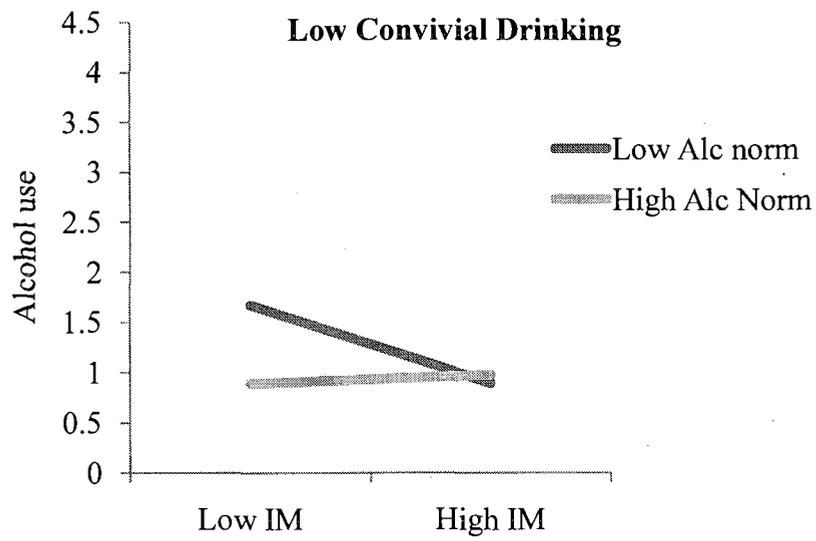


Figure 9

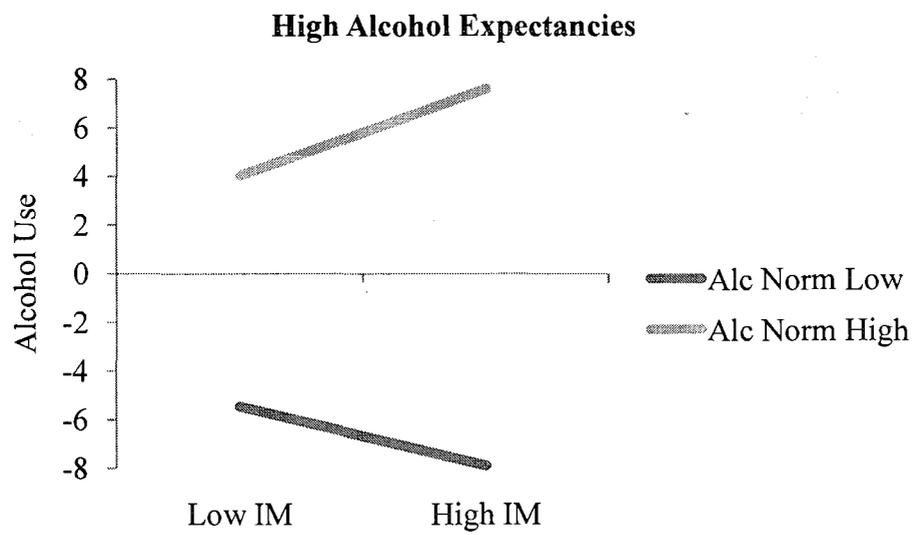
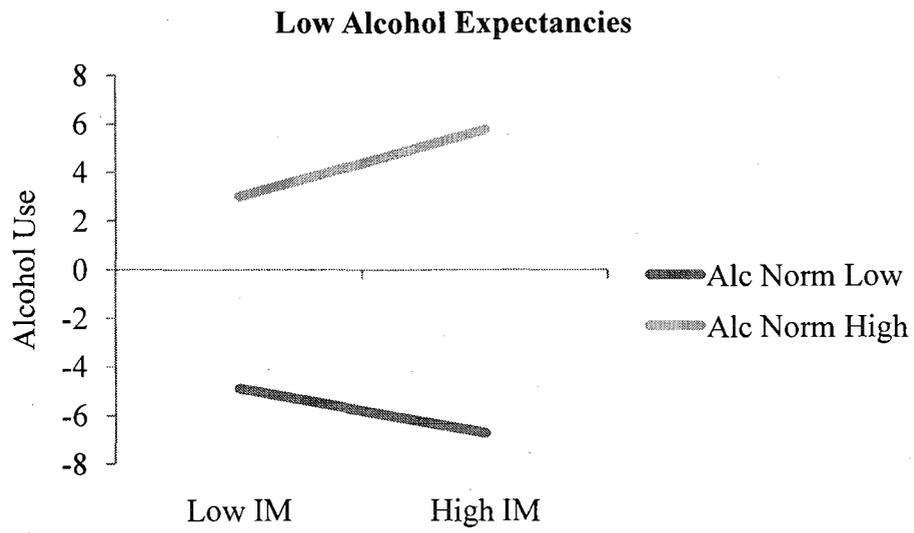


Figure 10

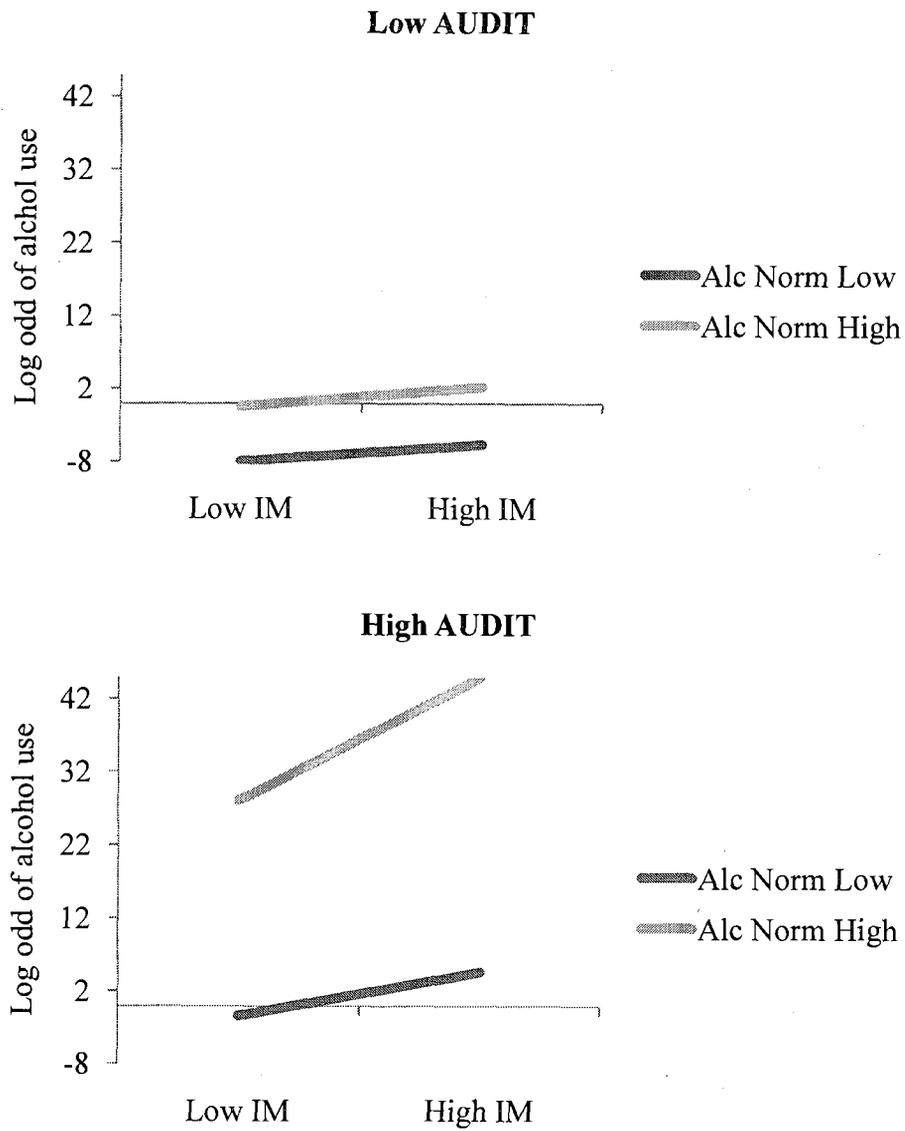


Figure 11

## Appendix

### *Study Measures*

#### **Self-Monitoring Scale** (Lennox & Wolfe, 1984)

1. In social situations, I have the ability to alter my behavior if I feel that something else is called for.
2. I am often able to read people's true emotions correctly through their eyes.
3. I have the ability to control the way I come across to people, depending on the impression I wish to give them.
4. In conversations, I am sensitive to even the slightest change in the facial expression of the person I'm conversing with.
5. My powers of intuition are quite good when it comes to understanding others' emotions and motives.
6. I can usually tell when others consider a joke to be in bad taste, even though they may laugh convincingly.
7. When I feel that the image I am portraying isn't working, I can readily change it to something that does.
8. I can usually tell when I've said something inappropriate by reading the listener's eyes.
9. I have trouble changing my behavior to suit different people and different situations.
10. I have found that I can adjust my behavior to meet the requirements of any situation I find myself in.
11. If someone is lying to me, I usually know it at once from that person's manner of expression.
12. Even when it might be to my advantage, I have difficulty putting up a good front.
13. Once I know what the situation calls for, it's easy for me to regulate my actions accordingly.

#### **Brief Fear of Negative Evaluation Scale** (Leary, 1983)

1. I worry about what other people will think of me even when I know it doesn't make any difference.
2. I am unconcerned even if I know people are forming an unfavorable impression of me.
3. I am frequently afraid of other people noticing my shortcomings.
4. I rarely worry about what kind of impression I am making on someone.
5. I am afraid others will not approve of me.
6. I am afraid that people will find fault with me.
7. Other people's opinions of me do not bother me.
8. When I am talking to someone, I worry about what they may be thinking about me.
9. I am usually worried about what kind of impression I make.
10. If I know someone is judging me, it has little effect on me.
11. Sometimes I think I am too concerned with what other people think of me.
12. I often worry that I will say or do the wrong things.

#### **Public Self-Consciousness Scale** (Feingstein, Schneider, & Buss, 1975)

1. I'm concerned about my style of doing things.
2. I'm concerned about the way I present myself.

3. I'm self-conscious about the way I look.
4. I usually worry about making a good impression.
5. One of the last things I do before I leave my house is look in the mirror.
6. I'm concerned about what other people think of me.
7. I'm usually aware of my appearance.

**Alcohol Expectancy Questionnaire** (AEQ; Brown, Christiansen, & Goldman, 1987)

Here are some statements about possible effects of alcohol. Select the answer that is closest to how you think alcohol affects most people. It is important that you answer all items, even if you have never tasted alcohol.

1. Most people become happy and feel good when they drink alcohol.
2. It is easier to open up and speak about one's feelings after drinking alcohol.
3. People will come up with new and exciting things more easily when they drink alcohol.
4. It is easier to feel comfortable in being with others when one drinks alcohol.
5. People become more friendly when they have been drinking and are a little inebriated.
6. When people drink alcohol, they are more likely to irritate others.
7. It is O.K. to drink alcohol because then one can join in with others who are having fun.
8. It is easier for people to say what they are really thinking after becoming inebriated.
9. People who have been drinking feel like they get power to control others.
10. Many alcoholic drinks taste good.
11. Alcohol helps people stand up against the pressure of bullying from others.
12. Annoyances and worries disappear when drinking alcohol.
13. Alcohol makes kissing and petting both easier and better.
14. Alcohol makes people more courteous.
15. People become more friendly and less formal when they drink alcohol.
16. Alcohol makes people relax.
17. When people are inebriated, they are more likely to take advantage of others.
18. One is better able to feel in touch with others when drinking alcohol.
19. People don't become angry as easily when they are inebriated.
20. Parties become more fun when alcoholic beverages are consumed there.
21. People don't feel so alone when they are drinking and becoming inebriated.
22. People can better control their moods when they are inebriated.
23. One doesn't have to think about mistakes one has made when one is inebriated.
24. It is easier to speak in front of a group of people when one is inebriated.
25. People get into better moods when they are inebriated.
26. Students who sometimes drink alcohol don't get their schoolwork done as well as others.
27. One becomes better able to pursue a persona one is attracted to when one is inebriated.
28. Drinking makes the future seem brighter.
29. Alcohol seems like magic.
30. I feel more coordinated after I drink.
31. After a few drinks I feel sexually responsive.
32. I often feel sexier after I've had a few drinks.
33. I am more romantic when I drink.

34. Having a few drinks is a nice way to celebrate a special occasion.
35. Drinking is pleasurable because it's enjoyable to join in with other people who are enjoying themselves.
36. Some alcohol has a pleasant, cleaning tingly taste.
37. If I have a couple drinks it is easier to express my feelings.
38. A few drinks make it easier to talk to people.
39. Drinking gives me more confidence in myself.
40. Alcohol enables me to fall asleep more easily.
41. Alcohol decreases muscular tension.
42. Alcohol makes me worry less.
43. After a few drinks it is easier to pick a fight.
44. Drinking makes me feel flushed.
45. I feel powerful when I drink as if I can really influence others to do as I want.

**Drinking Contexts Scale-Convivial Subscale** (O'Hare, 1997)

"Based on your personal experience, how would you RATE THE CHANCES that you might find yourself drinking excessively in the following circumstances?"

1. When I am at a bar or club
2. When I'm at a party
3. When I'm at a concert
4. When I'm with a few close friends
5. When it's during semester breaks or holidays
6. When I'm with a large group of acquaintances
7. When it's during the school semester
8. When it's toward the end of the week or a weekend
9. When I'm celebrating something important to me
10. When others around me are partying

**Alcohol Use Disorders Identification Test** (AUDIT; Saunders, Aasland, Babor, De La Fuente, & Grant, 1993)

1. How often during the last year have you found that you were not able to stop drinking alcohol once you had started?
2. How often during the last year have you failed to do what was normally expected from you because of drinking?
3. How often during the last year have you needed a first drink in the morning to get yourself going after a heavy drinking session?
4. How often during the last year have you had a feeling of guilt or remorse after drinking?
5. How often during the last year have you been unable to remember what happened the night before because you had been drinking?
6. Has a relative or friend or doctor or other health worker been concerned about your drinking or suggested you cut down?
7. Have you or someone else been injured as a result of your drinking?
8. How often do you have a drink containing alcohol?
9. How many drinks containing alcohol do you have on a typical day when you are drinking?

10. How often do you have five or more drinks on one occasion?

**Alcohol Prototype Measure** (Thorton, Gibbons, & Gerrard, 2002)

Take a moment to think about the type of college student who frequently drinks alcohol.

Is this person:

1. Smart
2. Popular
3. Cool
4. Good looking
5. Childish
6. Dull