Relationships among Fraternity Chapter Masculine Norms, Organizational Socialization, and the Problematic Behaviors of Fraternity Men

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RELATIONSHIPS AMONG FRATERNITY CHAPTER MASCULINE NORMS, ORGANIZATIONAL SOCIALIZATION, AND THE PROBLEMATIC BEHAVIORS OF FRATERNITY MEN

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Abstract

Relationships among Fraternity Chapter Masculine Norms, Organizational Socialization, and the Problematic Behaviors of Fraternity Men

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College fraternities are routinely associated with alcohol use and hazing (e.g., Wechsler, Kuh, & Davenport, 1996; Allan & Madden, 2008). These outcomes can lead to troubling consequences for fraternity members, and other stakeholders (DeSantis, 2007; Syrett, 2009). The masculine norm climates perpetuated by fraternities may contribute to fraternity men's alcohol use and hazing motivations (Kimmel, 2008; Syrett, 2009). However, not all fraternity members conform to hegemonic masculinity (Anderson, 2008; Harris & Harper, 2014). The masculine norm climates collectively espoused by fraternities may vary between chapters, and these differences may explain members' alcohol use and endorsement of hazing rationales (DeSantis, 2007). In addition, organizational socialization tactics have been found to relate to the outcomes of newcomers (e.g., Ashforth & Saks, 1996), and these tactics may explain differences that exist across the population of chapters for the relationships among members' conformity to masculine norms and their alcohol use or endorsement of hazing rationales.

No prior study had utilized a large, multi-institutional sample to examine if fraternity members' alcohol use or support of hazing rationales varied between fraternity chapters, or if the masculine norm climates promoted by chapters predict these outcomes. To address this gap, this study collected data from 2,678 undergraduates from a single college men's social fraternity represented at 76 colleges and universities in the United States and Canada. Utilizing a critical

postmodern quantitative inquiry, the data were analyzed through descriptive analyses and hierarchical linear modeling (HLM).

The findings indicate that fraternity members' alcohol use and endorsement of hazing rationales varied between fraternity chapters. Chapter heterosexual presentation climate was positively related to a member's alcohol use. Risk-taking, heterosexual-presentation and playboy climates were positively related to members' endorsement of social dominance hazing rationale, whereas the violence climate perpetuated by a fraternity chapter was negatively related to this rationale. Risk-taking climate was positively associated with the endorsement of solidarity and instrumental education hazing rationales. Investiture socialization climate was found to not moderate relationships among individual masculine norms and hazing rationales.

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Chapter I: Introduction and Problem Statement

In making their case for college fraternities as single-sex organizations, the North-American Interfraternity Conference (NIC) (2014), the trade organization for 68 national and international men's social fraternities, stated, "When fraternity is done right, it provides the premiere leadership experience on college campuses" (¶ 1). This opinion aligns with the purpose of most college fraternities; to socialize better men that engage in healthy behaviors and contribute to the welfare of others (e.g., Beta Theta Pi, n.d.). However, fraternity is often done wrong, resulting in harassment, injuries, deaths, and impediments to student learning at higher education institutions (DeSantis, 2007; Flanagan, 2014; Kuh, Pascarella, & Wechsler, 1996; New, 2014a). In fact, because of risks associated with these organizations, fraternities have liability insurances policies comparable to the toxic-waste disposal industry (Flanagan, 2014). These problematic outcomes may be a result of the hegemonic masculinities embedded in men's college fraternities (Harris & Harper, 2014; Kimmel, 2008; Martin & Hummer, 1989; Martin, 2016; Sanday, 1990/2007; Syrett, 2009). While it is likely that the fraternity membership experience is neither done right or wrong, and may vary between fraternity chapters, researchers have overwhelmingly examined these groups as a monolith (Biddix, Matney, Norman, & Martin, 2014; Hevel & Bureau, 2014). Thus, during a period of heightened concern about the behaviors and attitudes of fraternity men, an examination of the between chapter differences in the outcomes fraternity men and relationships of these outcomes to the masculinities promoted by these chapters is warranted to deconstruct and challenge the hegemonic conceptualizations manhood in these organizations that often lead to the troubling outcomes.

Fraternities routinely draw the ire of scholars, practitioners and other stakeholders for their association with high-risk behaviors (e.g., hazing, binge drinking) (Allan & Madden, 2008;

Campo, Poulos, & Sipple, 2005; Kuh et al., 1996; Owen, Burke, & Vichesky, 2008; Wechsler, Kuh, & Davenport, 1996). For example, Allan and Madden found that over 73% of fraternity and sorority participants in their study identified that they experienced at least one hazing behavior during their newcomer experiences. Also, scholars have identified fraternities as campus epicenters for homophobia, sexism, racism, and other forms of discrimination (Biddix et al., 2014; DeSantis, 2007; Kimmel, 2008; Sanday, 1990/2007; Syrett, 2009). Because of their association with troubling behaviors, fraternities face significant opposition, including repeated calls for their dissolution (Flanagan, 2014; New, 2014a). Though fraternities are known for their intense membership experiences and dense social networks (Reis & Trockel, 2003), little is known about the influences specific fraternity chapters have on individual member outcomes (Caudill et al., 2006). An examination that exposes the roles fraternities play in the development of their members may help to shed light on opportunities to reform these groups before they cause more harm, or they are shuttered all together.

It is likely that the troubling behaviors and attitudes of fraternity men are related to their conformity to hegemonic masculinity (DeSantis, 2007; Sanday, 1990/2007; Kimmel, 2008). Scholarship on fraternities, and more broadly men and masculinities, has associated men's high-risk and unhealthy behaviors with their adoption of stereotypical beliefs and behaviors that are associated with the prevailing conceptualization of manhood (e.g., Courtenay, 2000). Qualitative researchers have often identified fraternities as bastions for the preservation of hegemonic masculinity – the expression of stereotypical, and often hyper-masculine, gender norms and behaviors (DeSantis, 2007; Kimmel, 2008; Sanday, 1990/2007; Syrett, 2009). DeSantis (2007) found that fraternities that enforced more rigid masculine gender norms also engaged in the most anti-social behaviors. For example, fraternities that engendered toughness among their members

were associated with fighting, hazing and sexual abuse. Conversely, fraternities that allow members greater latitude to stray from stereotypical masculine norms have been found to be less homophobic, more respectful toward women, and have greater racial and ethnic diversity (Anderson, 2008; DeSantis, 2007; Harris & Harper, 2014). Though the findings from these case studies indicate that fraternity members' conformity to masculine norms varies between chapters, there is a need for a large scale study to examine the differences in the masculinities that exist between college fraternities.

The vast majority of the literature on college social men's fraternities compares and contrasts members' outcomes to those of their unaffiliated peers (for a review of this literature, see Biddix et al., 2014). Researchers often rely upon the dichotomous "yes/no" responses of participants about their membership in fraternities to make these comparisons. For example, the bulk of the research on the alcohol use of fraternity men has viewed this population as a monolith (e.g., Wechsler et al., 1996), though a handful of studies provide promising research on the between-chapter differences in students' drinking behaviors (Caudill et al., 2006; Reis & Trockel, 2003; Trockel, Wall, Williams, & Reis, 2008; Trockel, Williams, & Reis, 2003). In other words, while the outcomes of fraternity members may vary drastically from chapter to chapter, and institution to institution, all fraternity members are routinely lumped together in a singular population. In their thorough review of fraternity and sorority scholarship from 1996 to 2013, Biddix et al. (2014) explicitly called for researchers to fill this void in the literature by examining the similarities and differences between fraternities. They posited that the fraternity members' experiences and outcomes may vary significantly between chapters and between institutions, and this variability may undermine the dichotomous classification utilized by most fraternity and sorority researchers. The presents study examined the between chapter differences

in masculine norm conformity, alcohol consumption behavior and the endorsement of hazing rationales of fraternity men, and explored the relationships among fraternity chapter masculine norm climates, and members' alcohol use and hazing motivations. In doing so, this research addressed two significant gaps in the literature.

Literature Review

College Men's Fraternities

Opponents have routinely raised concerns about the behaviors and development of fraternity men since the first social fraternity was founded at Union College in 1825 (Barber, 2012; Flanagan, 2014; Kuh et al., 1996; Syrett, 2009). The scrutiny of these organizations has intensified in recent years because of their continued association with a number of troubling events, including, but not limited to, bias and hate incidents, injuries, deaths, and physical and sexual assaults (Biddix et al., 2014; Flanagan, 2014; Kimmel, 2008; Martin, 2016). While researchers have found that undergraduate fraternity membership relates to a number of concerning outcomes and behaviors (e.g., academic dishonesty), the harms associated with these groups are often the results of the abuse of alcohol and hazing practices of fraternity men (e.g., Flanagan, 2014). Unfortunately, few, if any, intervention strategies have been found to effectively mitigate these troubling behaviors (Brown-Rice, Furr, & Jorgensen, 2015; Bruce & Keller, 2007; Foubert, Newberry, & Tatum, 2007; Moynihan & Banyard, 2008). Because hegemonic masculine gender performances may be the source of these behaviors, the present study findings from the present student may have vital implications on the practice of higher education administrators in their work to mitigate members' alcohol use and hazing behaviors.

However, some opponents have argued that fraternities should be banned from higher education institutions and closed because of their association with problematic outcomes

(Flanagan, 2014; Martin, 2016; New, 2014a). While some institutions have banned fraternities (e.g., Williams College), other intervention strategies might be more feasible (Martin, 2016). Also, bans may only motivate fraternities to continue sub rosa, and some stakeholder fear that this might exacerbate their problematic behaviors (New, 2014a). In addition to the challenges of banning fraternities, these organizations can benefit their members' learning, development and growth, and provide dividends for other stakeholders. Fraternities can provide their members with opportunities to build confidence, foster healthy, diverse relationships, and develop leadership and social skills, while challenging the problematic behaviors of members or others (Anderson, 2008; Brand & Dodd, 1998; Davis, LaPrad, & Dixon, 2011; Gallup, 2014; Harris & Harper, 2014). Before institutions take measures to ban fraternities outright, it is worth investigating if the problematic behaviors are isolated to specific fraternity chapters that endorse particular traditional masculine norms, or if these outcomes persist universally across these organizations.

Men and Masculinity

Gendered organizations. To understand the collective gender climates of fraternity, fraternities may best be thought of as gendered organizations (DeSantis, 2007). Acker (1990) argued that organizational processes are distinctly masculine and feminine, and masculine norms are favored throughout organizations. Therefore, organizations affirm and promote gender inequities that perpetuate the dominant standing of particular masculinities over subordinate masculinities and femininities (Acker, 1990, 2012). Acker (1990, 2012) identified a number of organizational processes that sustain gender inequities. For example, Acker (1990, 2012) and Connell and Messerschmidt (2005) identified that organizational hierarchies, divisions of labor and membership categorization favor an individual's performances of hegemonic masculine

norms. Individuals in positions of authority define and enforce the acceptable gender performances in an organization by role modeling behaviors and practices, evaluating the performances of subordinates, and within holding advances within the organizational hierarchy to those that fail to conform to the appropriate gender norms.

Fraternities are often emblematic of these gendered organizational processes, as they are notorious for their membership hierarchies. Kimmel (2008) noted these hierarchies in his examination of fraternity initiation practices. He argued, "Initiations…are all about masculinity – testing it and proving it" (Kimmel, 2008, p. 99). In this context, veteran fraternity members define and discipline the masculine norms held by their chapters, and entrench masculine norms that relate to the problematic behaviors of members.

Masculinity as a social construction. Individuals often believe that biological sex differences between individuals promote specific beliefs, attitudes and behaviors. Yet, researchers have worked to dispel this notion, finding that there are more similarities among males and females than differences (e.g., Hyde, 2005). Instead of this essentialist binary view of gender, scholars widely advocate that gender is a social construction fluid in character. In other words, gender roles are learned from ideologies and experiences, and these forces discipline individuals to engage in actions perceived to be masculine or feminine (Butler, 1990; Pleck, 1995).

Butler (1990) argued that gender only exists in the form of actions that are construed to be gendered based on prevailing societal norms. These performances are not theatrical in nature, but rather repetitive acts and layered gender norms that produce and reinforce the false conceptualization of natural gender identities. Because of their positions of power on their campus communities, fraternities reify, reinforce and expand fictitious ideals of "manhood," and

the complimentary ideals of "womanhood," by promoting and regulating traditional masculine gender norms among their members and other community members (DeSantis, 2007; Kimmel, 2008; Syrett, 2009). Fraternities may be particularly potent environments for the socialization of masculinity, because individuals who identify as men validate and maintain their manhood status based on their interactions with other men (Vandello & Bosson, 2013). In addition, the transition from high school to college for late adolescent boys and young men may threaten their masculine identities, and fraternities provide the rare forum for these individuals to affirm their status as men through initiations and overt masculine performances, while also developing close, intimate relationships with other men (Syrett, 2009). While it is likely that there are gender socialization differences between fraternities, other than DeSantis' (2007) case study at a single public research university, researchers have not explored if these masculinities vary between specific chapters of a fraternity affiliated with higher education institutions across the United States and Canada, or if fraternity chapter masculine norm climates promote specific gender performances.

Like the reinforcement of the concept of gender identity, individuals with power dictate the discourse that normalizes and perpetuates particular masculine norms by signaling, disciplining and demanding compliance to particular patterns of gendered practice (Butler, 1990; Connell, 1987; Connell & Messerschmidt, 2005). Connell and Messerschmidt (2005) theorized these patterns of practice foster normative conceptualizations of masculinity, known as hegemonic masculinity, placing specific masculinities as the dominant standards in a society. Hegemonic masculinity – the performance of masculine gender norms and behaviors perceived to be the ideal within a society – serves as the benchmark for all other masculinities (Connell, 1987; Connell & Messerschmidt, 2005). Within fraternity chapters, those members that control

the discourse have the power to shape and enforce the masculine norms of their fellow members and newcomers, and in doing so, perpetuate hegemonic masculinity.

While hegemonic masculinity may be performed only by a minority of men, they hold significant power and serve as the benchmark to evaluate, critique, and discipline other subordinate masculinities. Incorporating the concept of power provided by Foucault (1977/2009), Connell and Messerschmidt (2005) argued that hegemonic masculinities do not need to rely on force to retain their positions on dominance. Rather, they identified that "Cultural consent, discursive centrality, institutionalization, and the marginalization or delegitimation of alternatives are widely documented features of socially dominant masculinities" (p. 846). Hegemonic masculinities maintain and preserve their standing through discipline and the circulation of truth and knowledge.

Fraternities, particularly those that maintain positions of power and privilege, value and perpetuate hegemonic masculinity (DeSantis, 2007; Sanday, 1990/2007). As a result of his study on the influences fraternities and sororities have on gender identities of their members, DeSantis (2007) concluded that, "Fraternities and sororities can be best understood as *gendered clubs* where traditional ideas of masculinity and femininity are reaffirmed – and in some cases, even reformed or replaced" (p. 19). For example, DeSantis (2007) theorized that possessing an imposing muscular physique is a valued trait among white fraternity men that practice hegemonic masculinity, coining the term "Greco-sexual." DeSantis noted that weight lifting was a consistently performed practice among high-status fraternity men. The "Greco-sexual" aligns with the concept of hegemonic masculinity because men's bodies can serve as the object for the embodiment of hegemonic social practices (Connell & Messerschmidt, 2005). Connell and Messerschmidt (2005) argued, "Among dominant groups of men, the circuits of social

embodiment constantly involve the institutions on which their privileges rest" (p. 852). Privileged and powerful fraternity men establish and reinforce the standards for the masculinity on their campuses and within their fraternity chapters. However, researchers have not examined if and how these masculine norms vary between fraternity chapters located on different college and university campuses.

Gender Socialization

As noted by Acker (1990), organizations, such as fraternities, socialize their members to masculine gender norms. However, there is a lack of research on the tactics organizations employ to introduce and reinforce their conceptualizations of masculinity. This void is perplexing, as fraternities and higher education institutions often go to great lengths to socialize newcomers into their respective fraternity chapters. For example, the Kappa Alpha Order National Administrative Office (Kappa Alpha) (n.d.) manual for new member education states, "It could be argued that new member education is the most important aspect of a chapter's operations" (p. 3). Institutions and national fraternities regularly create manuals and trainings that dictate socialization policies and procedures that fraternity chapters must follow as they transition newcomers into their groups (e.g., Kappa Alpha). While the organizations invest heavily in their socialization efforts, researchers have not examined if the socialization mechanisms utilized by fraternities are effective in transitioning newcomers into these groups, and engendering particular behaviors (e.g., binge drinking).

The literature on organizational socialization tactics, as first articulated by Van Maanen and Schein (1979), is isolated to the scholarship on workforce newcomers (e.g., Bauer, Bodner, Erdogan, Truxillo, & Tucker, 2007; Saks, Uggerslev, & Fassina, 2007). However this topic is certainly relevant for research on college students, because newcomers that lack relevant

experiences and competencies, such as first or second year students that join fraternities, are likely to be the most receptive to the influence of socialization tactics (Bauer et al., 2007; Saks et al., 2007). Van Maanen and Schein scholars defined socialization as the social competencies required for an individual to assume a role within an organization (Schein, 1967). They proposed six socialization tactics that organizations can employ to orient and promote the adjustment of newcomers to their new organizational roles. Each of their six tactics fluctuates along a continuum, with the tactics identified by the extremes of each continuum.

Of specific interest to this study is the investiture vs. divestiture socialization tactic (Van Maanen & Schein, 1979). Investiture processes respect and recognize the unique identities and beliefs of newcomers, while the latter disaffirms the identities and personal attributes of this population. This tactic is worth examination because investiture has been found to negatively relate to newcomers' personal change upon entry into their organizations (Ashforth & Saks, 1996), but it has also been identified as one of the strongest predictors of their role orientation and perceived organization fit, and their organizational commitment and adjustment (Bauer et al., 2007; Cable & Parsons, 2001; Jones, 1986; Saks et al., 2007). In the context of fraternity membership, investiture socialization might diminish influence chapters have on members' behaviors (e.g., alcohol use), while increasing their support for behaviors that are perceived to promote commitment to their groups (e.g., hazing). Therefore, while specific fraternity chapter-held masculine norms may predict a member's proclivity to engage problematic behaviors like alcohol abuse and hazing, the investiture vs. divestiture tactics employed by a chapter might affect these relationships. In other words, how a new member is socialized into his fraternity influences his adoption of specific masculine norms, and his likelihood to engage in particular problematic behaviors.

Theoretical Framework

Critical Postmodern Theory

The study was framed by critical postmodern theory. "[T]he desired objective of critical theories is to emancipate individuals from what has been socially regulated and thus assumed 'natural' or 'normal'" (Martinez Aleman, 2014, p. 8). Buttressed by Butler's (1990) critical postmodern perspective that gender identity is fictitious, this study examined the hegemonic masculine norms of fraternity men and their organizations with skepticism. By criticizing the normative constructions of gender within this organization, this study aimed to promote positive transformations within fraternities and their respective institutions, and to liberate fraternity members from gender norms they see as truth.

While quantitative researchers often ground their studies in positivistic or postpositivistic frameworks, this study served as a critical quantitative inquiry of the social construction of gender in college fraternities that did more than reject null hypotheses, and examine processes or relationships (Stage, 2007; Stage & Wells, 2014). This was accomplished by unpacking and deconstructing the conceptualization of fraternity men, and challenging processes and structures that reify this identity. In doing so, this study challenged the dominant perceptions of manhood and masculinities in college social fraternities through the examination of the relationships between chapter-held traditional masculine norms, newcomer socialization, and the problematic behaviors of undergraduate fraternity members. Challenging the traditional concepts is a fundamental aspect of critical quantitative scholarship (Rios-Aguilar, 2014; Stage, 2007). Also, studying the relationships of fraternity chapter-level variables on individual outcomes aligned with Stage and Wells' (2014) task for critical quantitative researchers to study individuals within their contexts.

This study relied on Rios-Aguilar's (2014) framework for critical quantitative inquiry that not only encourages scholars to reframe their research questions, but to consider their positionality and power, and to advocate for equality among students. An important component of quantitative criticalists' research is to utilize their findings to promote changes in practices and policies. As noted by Rios Aguilar (2014), "[Quantitative criticalists] need to do a better job in translating the results of our sophisticated methodologies into concrete advice for college staff, administrators, faculty, and policymakers" (p. 100). A significant portion of the final chapter of this study challenged existing policies and practice relevant to fraternity community stakeholders.

Research Questions

The following central questions guided the study:

1. What are the alcohol consumption behavior and hazing rationale patterns among fraternity members and their chapters?
2. How do members' conformity to masculine norms vary between chapters, and exhibit chapter-level properties?
3. How, if at all, do the alcohol consumption behaviors and hazing rationales of individual fraternity members vary from fraternity chapter to fraternity chapter, and, if so,
4. How, if at all, do the fraternity chapter masculine norm climates relate to these problematic behaviors and attitudes?
5. If applicable, does investiture socialization moderate the relationship between individual masculine norm adoption and their problematic behaviors or attitudes that vary across the population of chapters?

Research Design

Utilizing secondary data analysis of a sample of 2,678 undergraduate fraternity men from 76 higher education-based chapters collected through a census of an undergraduate population of a single international men's social fraternity with 4,051 members at 77 institutions, the study quantitatively examined the chapter differences of members' conformity to masculine, alcohol consumption behaviors, and endorsement of hazing rationales. In addition, the study examined if fraternity chapter masculine norm climates predicted members' alcohol use or hazing motivations. The data for this study were collected through an internet survey distributed between January 29, 2017 and March 10, 2017 via email to all active undergraduate members with available email address on file with an international fraternity distributed by Dyad Strategies, LLC (Dyad). Dyad staff members scrubbed the data of personally identifiable information, and then sent the data to the researcher.

To examine the relationships among alcohol consumption behaviors, endorsement of hazing rationales, investiture socialization, and traditional masculine norms, the study utilized several previously validated and reliable scales. A fraternity man's conformity to nine traditional masculine norms was measured by the Conformity to Masculine Norms-46 (CMNI-46) (Parent & Moradi, 2009), a more parsimonious version of Mahalik et al.'s (2003) 94-item CMNI. This scale was included in the survey questionnaire without any amendments because the CMNI-46 has been found to be reliable and valid, and the scale is widely used in educational research (e.g., Wells et al., 2014).

In addition to the CMNI-46, the study relied on the Alcohol Use Disorders Test consumption questions (AUDIT-C) to assess the alcohol consumption behaviors of the participants (Saunders, Aasland, Babor, De La Fuente, & Grant, 1993). Like the CMNI and

CMNI-46, the AUDIT-C is widely used by researchers because it has been found to be a reliable and consistent measure (Bush, Kivlahan, McDonell, Fihn, & Bradley, 1998). Also, other scholars have used the AUDIT-C in their research on fraternity men and alcohol use (e.g., Brown-Rice et al., 2015). The inclusion of this scale allowed for benchmarking against other studies on fraternity men's alcohol use.

To measure a fraternity member's motivations to engage in hazing, the study utilized the Hazing Rationale Scale (HRS) developed by McCreary and Schutts (n.d.). This scale, currently used by Dyad in their national or international fraternity internet surveys, was selected because there is no other widely used scale that measures hazing behaviors, attitudes, or experiences (Biddix et al., 2014), and McCreary and Schutts extensively explored the reliability and validity of the scale (see Chapter III). Also, by not adding a new scale to survey, there were fewer items added to the Dyad survey.

To examine the investiture socialization tactics utilized by fraternity chapters, this study used an adapted version of the Measure of Investiture created by Ashforth, Sluss and Saks (2007) based on an earlier scale from Ashforth and Saks (1996). This 5-item sub-scale was selected because it measures the Van Maanen & Schein's (1979) investiture socialization tactic. Ashforth, Sluss and Saks found that this sub-scale is reliable, with an alpha reliability of .79. These items was amended by replacing "organization" with "fraternity chapter" to align the scale with terminology relevant to the sample population of fraternity men.

The researcher utilized hierarchical linear modeling (HLM) to investigate if chapter differences exist in members' conformity to masculine norms, and their problematic behaviors, and if chapter masculine norm climates predicted the problematic behaviors of fraternity men. Prior research on fraternities has utilized similar cross-sectional HLM designs to examine if

differences exist between chapters (e.g., Caudill et al., 2006). This method of analysis is gaining prominence in higher education research, because it allows researchers to examine multilevel effects on individual outcomes, and campus stakeholders are inherently nested in different organizations (Niehaus, Campbell, & Inkelas, 2014). As Niehaus et. al (2014) noted, student groups, such as fraternities, may have a more significant influence on student outcomes than institutional factors. However, few studies have employed HLM to examine the relationships between student groups and outcomes.

Significance of Study

By utilizing a large, multi-institutional sample of fraternity men, this study took an important step toward understanding the relationships among fraternity masculine norm climates and members' alcohol use and endorsements of hazing rationales, and bolstered prior qualitative scholarship that identified that the hegemonic masculine norm climates of fraternities may lead to the problematic behaviors of members (DeSantis, 2007; Harris & Harper, 2014; Kimmel, 2008; Martin & Hummer, 1989; Sanday, 1990/2007; Syrett, 2009). The study responded directly to Biddix et al.'s (2014) call for researchers to examine the similarities and differences between specific fraternity chapters. By critically analyzing the gendered nature of college men's fraternities, and the potential relationships between chapter masculine norm climates and member's problematic behaviors, the study advanced the scholarship on college men and men's social fraternities.

Researchers have found that interventions that attempt to address the problematic behaviors associated with college fraternities and their members are typically ineffective at promoting change (Molasso, 2005). However, by understanding the relationships among specific chapter masculine norm climates and members' problematic behaviors and attitudes, and if

chapter investiture socialization tactic climates moderate these relationships if they vary across fraternity chapters, higher education scholars and practitioners might be able to identify new intervention strategies to confront the problematic behaviors associated with this population. More importantly, these findings from the study may transcend this examined population, and be used to change the behaviors of other campus organizations and teams that conform to the identified masculine norms or utilize particular socialization tactics.

Chapter II: Literature Review

The first portion of this chapter reviews the problematic outcomes associated with college social fraternities, with significant attention given to the literature on alcohol use and hazing. Following that section, the literature on men, masculine gender performances, and problematic outcomes, including those specific to college men's social fraternities, is reviewed in detail. The chapter addresses the connection of these outcomes with individuals' conformity or disconformity to traditional masculine norms, and, of the utmost importance to this study, the masculine norm climates perpetuated by fraternities. Next, the chapter reviews the literature on organizational socialization. While the literature on organizational socialization to isolated to research on workplace environments, connections are made between this concept and college fraternities. Following this section is a summary of the literature, and an explanation of the value added to the literature by this study. The chapter concludes with a review of the critical postmodern theoretical framework of this study.

Fraternities and Problematic Outcomes

Fraternities are routinely identified as bastions for the problematic behaviors on college campuses (DeSantis, 2007; Flanagan, 2014; Kimmel, 2008; Kuh et al., 1996; Syrett, 2009). The literature is inundated with findings that show fraternity men consume more alcohol than other college students (e.g., Borsari & Carey, 1999; Wechsler, Kuh, & Davenport, 1996). Hazing has been reported to be prevalent in these organizations (Allan & Madden, 2008; Owen et al., 2008), and some members view hazing as a fundamental aspect of the fraternity experience (Cimino, 2016; DeSantis, 2007). Others have found that fraternities promote climates that support rape myths, and promote sexually aggressive behaviors that lead to sexual assaults and violence (Bannon, Brosi, & Foubert, 2013; Martin & Hummer, 1989; Rhoads, 1995; Sanday, 1990/2007).

Adding to the other discouraging findings, research has identified fraternities as centers for discrimination (e.g., Syrett, 2009). Because of the problems associated with these groups, and the lack of effective interventions to mitigate these behaviors, opponents frequently argue that fraternities and sororities should be banned from American higher education (New, 2014a). While removing college social fraternities and sororities might appear to be a logical strategy to address these issues, there might be more effective mechanisms to promote behavioral change within this population. The following sections review the literature on fraternities and the problematic behaviors of alcohol use and hazing with the intent to identify opportunities for future research that may provide insights for effective intervention strategies for fraternities.

Alcohol and Men's Social Fraternities

The vast majority of research on fraternities since the mid-1990s has examined the relationship between individuals' undergraduate membership in a fraternity and their alcohol use (Biddix et al., 2014). In their literature review of fraternity and sorority between 1996 and 2013, Biddix et al. (2014) argued that Wechsler, Kuh and Davenport's (1996) seminal, but now dated study, and Kuh, Pascarella and Wechsler's (1996) *Chronicle of Higher Education* editorial on fraternity members' alcohol use and the detrimental effects of fraternity membership, served as the impetus for the exponential increase in research on the relationship between these variables. The study, which relied on the Harvard School of Public Health College Alcohol Study (CAS) 1993 data provided by 14,756 undergraduates participants from 115 higher education institutions with social fraternity and sorority communities (Wechsler et al., 1996). Of this sample, 18% identified that they were members of fraternities and sororities, and 4% identified that they resided in fraternity or sorority houses. Using chi-square analyses, the researchers identified that the binge drinking frequencies of men that resided in their fraternity houses, non-resident

fraternity men, and men not affiliated with were statistically significantly different, with 86% of resident fraternity men identified as binge drinkers, compared to 71% of non-resident members, and 45% of unaffiliated men (Wechsler et al., 1996). Similarly, resident members, followed by other fraternity members and unaffiliated men, experienced the highest proportion of problematic post-drinking outcomes (e.g., hangovers). These findings served as the primary basis for Kuh et al.'s (1996) call for a systematic reform of social fraternities and sororities across the United States.

Almost universally, the research subsequent to Wechsler et al.'s (1996) study has found that fraternity members consume alcohol in greater amounts and more frequently than any other student subgroup (see Biddix et al., 2014 for a review of this literature). Because of these consistent findings, this section does not attempt to review the hundreds of studies on this topic, but does address differences between individuals and contexts than may relate to alcohol use and alcohol-related problems (e.g., binge drinking).

Fraternity-Specific Demographics and Alcohol

High school and fraternity newcomer alcohol use. Numerous studies have found that students entering college from high school that consume more alcohol, and do so more frequently, join fraternities and sororities at higher rates than their peers (Asel, Seifert, & Pascarella, 2009; McCabe et al., 2005; Park, Sher, & Krull, 2008, 2009; Rhoades & Maggs, 2006). Park et al. (2009) proposed that fraternity newcomers are not passive participants in fraternity and sorority drinking cultures, and that high school drinkers pursue opportunities, including fraternity and sorority membership, to perpetuate their drinking habits. While one might speculate that precollege drinking behaviors, not fraternity membership, influence students' college alcohol use, other research has identified that controlling for students'

predispositions to drink, fraternity and sorority membership was related to the increased alcohol use of members (Asel et al., 2009; DeSimone, 2007; Sher, Bartholow, & Nanda, 2001). In the discussion of their findings, Asel et al. (2009) remarked, "the substantial influence of fraternity/sorority membership on excessive alcohol use was a socialization effect rather than merely a recruitment effect" (p. 7). Even though fraternity newcomers might be predisposed to drink based on their high school alcohol use, contextual factors of individuals' fraternity experiences might promote an increase in their alcohol-related behaviors.

However, the literature on the differences between the alcohol use of newcomers and veteran members are inconclusive. Researchers have found that the changes in drinking behaviors from individuals' newcomer experiences to a year later in their membership are negligible (Larimer et al., 2001; Larimer, Turner, Mallett, & Geisner, 2004; Park, Sher, Wood, & Krull, 2009). Conversely, Sher, Bartholow and Nanda (2001) found that first year student fraternity membership did not relate to heavy drinking, but did relate for veteran members later in their undergraduate experiences. Others have identified that fraternity members' alcohol use increased during their newcomer experiences, and stagnated during their time as veteran members (Capone, Wood, Borsari, & Laird, 2007; Park et al., 2008). In a seven-wave longitudinal study of the self-reported alcohol use of 2,376 students at a Midwestern research university from their first year orientation to end of the third year in college, Park et al. (2008) found that regardless of the time they joined their organizations during their undergraduate experiences, new fraternity or sorority newcomers' alcohol use increased to the level of their fraternity and sorority peers from their initial members to the time they became veteran members. Also, individuals that discontinued their membership in fraternities and sororities reported statistically significant lower levels of alcohol use than their peers that continued their

membership in these organizations. Park et al. (2008) argued that the contexts of fraternities and sororities influenced students' alcohol use behaviors, but they did not identify any contextual factors that may relate to these outcomes. Scholarship is needed on the contextual factors of membership that might explain the alcohol-related behaviors of fraternity men at various points in their academic careers.

Fraternity house residence. First reported by Wechsler et al. (1996), the majority of literature supports the finding that fraternity and sorority house residents consume alcohol more than their out-of-house peers (Borsari & Carey, 1999; Collins & Liu, 2014; Crosse, Ginexi, & Caudill, 2006; Nelson, Xuan, Lee, Weitzman, & Wechsler, 2009; Page & O'Hegarty, 2006; Park, Sher, & Krull, 2009). Only one study conducted by Nelson and McHugh Engstrom (2013) at a single university in the Northeast contradicts these findings. However, the researchers use of cross sectional hierarchical linear modeling design on a small sample of 370 participants in 3 groups may have led to type I errors (Maas & Hox, 2005). In a longitudinal study of fraternity members from a single national fraternity, Crosse et al. (2006) compared the binge drinking behaviors of fraternity house residents and non-residents, members of chapters that did and did not have fraternity houses, and members of chapters with and without alcohol-free housing. The researchers found that alcohol-free housing was an ineffective strategy to reduce members' alcohol use, that members of chapters with a fraternity house binge drank more frequently than members from unhoused chapters, and fraternity house residents engaged in binge drinking more than out-of-house members. Because the literature consistently shows that fraternity house residents drink more than other members, it is important to include this potential covariate in future research.

Race and ethnicity and fraternity member alcohol use. Though Kimmel (2008) argued that binge drinking is "a white thing" (p. 104), few studies have examined the relationships among fraternity members, race and ethnicity, and alcohol use. The quantitative studies that have examined these relationships have coded race and ethnicity as dichotomous dummy variables, often because their participants overwhelmingly identified as White (e.g., participants were classified as a White or non-White). Utilizing multilevel logistic regression to understand the influence of an institutions' fraternity community volunteering climate on individual members' alcohol use, Weitzman & Chen (2005) found that participants that identified as White, under the age of the 22 years old, or came from higher socioeconomic status backgrounds had greater odds of problematic alcohol use and other alcohol-related problematic outcomes. Other studies have found that White-identifying fraternity and sorority members drink more than students that do not identify as White (Capone et al., 2007). In a study of college men's drinking behaviors in which 64.8% of participants identified as Asian American, Iwamoto, Corbin, Lejuez and MacPherson (2014) identified that fraternity membership positively related to alcohol use. Their model operated consistently across students regardless of race. A similar study conducted by Iwamoto, Grivel, Cheng, and Zamboanga (2016) found that White students were more likely to engage in heavy episodic drinking compared to first generation Asian American peers, but that students' fraternity membership status did not affect the magnitude of these relationships. While White students may drink more than their peers, the literature is inclusive about the relationships among fraternity membership, alcohol use, and students' racial or ethnic identities. Future studies should continue to examine these relationships.

In one of the only studies to examine the intersections of race, social class, and gender on fraternity members' drinking behaviors, (Sweeney, 2014) interviewed 24 fraternity men from

varying racial, ethnic, and socioeconomic backgrounds at a public university with 35,000 students. The study identified that White fraternity men from higher socioeconomic backgrounds joined fraternities to specifically engage in what Sweeney identified as the "collegiate party discourse" that included binge drinking, the pursuit of women, and other hedonistic behaviors. Conversely, men of color and those from lower socioeconomic backgrounds were more ambivalent toward partying. Sweeney (2014) encouraged future research on college partying to account for the inequitable structures that shape students' social lives. Because the findings from the literature are mixed, researchers who are investigating the alcohol use of fraternity men should continue to explore the relationships of these variables.

Fraternity Contexts and Member Alcohol Use

A significant shortcoming of the literature that has examined the relationships among fraternity and sorority membership, and alcohol-related outcomes is that fraternity and sorority members are often studied as a monolithic population (Biddix et al., 2014). The lack of research on contextual factors that affect fraternity members' alcohol use is surprising, because a number of scholars have argued that these influences are important contributors to this problematic behavior (Borsari & Carey, 1999; Caudill et al., 2006; Durkin, Wolfe, & Clark, 2005; Knee & Neighbors, 2002; Neighbors, Lee, Lewis, Fossos, & Larimer, 2008; Park et al., 2008). In their review of two decades of literature on fraternity member alcohol use, Borsari and Carey (1999) noted that students' drinking behaviors vary between fraternity chapters, and that scholars and practitioners must that take into account the unique alcohol cultures and other characteristics of each chapter. However, in the almost 20 years since their recommendations, only a handful of studies have examined if members' alcohol use differs between fraternity chapters.

Though limited to five studies, the literature supports that members' alcohol use and other alcohol-related outcomes vary between fraternity chapters (Caudill et al., 2006; Crosse et al., 2006; Reis & Trockel, 2003; Trockel et al., 2008, 2003). Caudill et. al (2006), and Crosse et al. (2006) conducted their studies relying on the same data collected from a single national men's social fraternity with 99 chapters located at higher education institutions across the United States. Caudill et al. (2006) investigated if the alcohol use and the other alcohol-related outcomes of fraternity men varies between chapters, and identified individual and chapter characteristics that explain the differences in members' behaviors. The study utilized a cross sectional HLM design. Of relevance to this study, the researchers found that various individual alcohol use outcomes (e.g., frequency of binge drinking) did vary between chapters. For example, Caudill et al. (2006) found that 21% of the variance of members' binge drinking behaviors could be explained by chapter-level variables. In addition to finding that a number of individual attributes related to members' alcohol use (e.g., members with lower grade point averages drank more than members with higher grade point averages), the researchers found that the membership size of a chapter, and if a chapter was housed or unhoused related to particular alcohol use outcomes. Similar to the findings of Crosse et al. (2006), Caudill and colleagues reported that members of chapters with fraternity houses had statistically significantly higher estimated blood alcohol contents (BAC) and binge drank more frequently than their peers from chapters without fraternity houses. Also, members of chapters with 22 or fewer members had lower estimated BACs than members of larger chapters. These findings indicate that fraternities with more power and prestige might maintain cultures that promote problematic alcohol use.

Trockel et al. (2008, 2006) relied on the same small dataset collected from 381 fraternity members from 26 chapters of 2 national fraternities for their studies the relationships of chapter

climates on individual alcohol use. Both studies utilized cross sectional HLM designs, and found that 32% of the variance in members' alcohol consumption varied between chapters. Relying on group-mean centered variables created from students' survey responses to examine individual and chapter predictors, Trockel et al. (2008) reported that chapter pro-drinking cultures and chapter climate around alcohol consumption related positively to members' alcohol use. Conversely, as the chapter accountability climate on alcohol use increased, members' alcohol use decreased (Trockel et al., 2008). While these studies provided evidence of differences between chapters related to members' alcohol consumption, the findings should be viewed with some skepticism because the level-2 sample sizes fall below the recommendations for HLM analyses (Bickel, 2007; Maas & Hox, 2005; Raudenbush & Bryk, 2002).

In addition to the literature that has examined the variance of members' alcohol use that can be explained by chapter differences through national fraternity samples, one study examined the relationship between chapter climates where members' bragged about their alcohol consumption and members' reported alcohol use (Reis & Trockel, 2003). Relying on a sample of 3,756 fraternity and sorority members from 74 chapters at a large Midwest research university, Reis and Trockel (2003) found that 22% of the variance in members' weekly alcohol consumption amounts varied between chapters, and that the chapter climate on alcohol glorification positively related to members' alcohol use. Also, Reis and Trockel (2003) identified that fraternity members reported higher levels of alcohol use than their sorority member peers.

The literature on the differences between chapters and their members' alcohol consumption supports the assertions of the contextual aspects of individuals' fraternity experiences contribute to their alcohol-related outcomes (e.g., Borsari & Carey, 1999). Five studies from three different datasets provide evidence that chapter-level factors relate to

members' use of alcohol (Caudill et al., 2006; Crosse et al., 2006; Reis & Trockel, 2003; Trockel et al., 2008, 2003). Though the findings from these studies add value to the scholarship on fraternity members' adoption of problematic behaviors, there may be other chapter norms that affect and better predict individual's alcohol use. What other aspects of fraternity chapter climates relate to these outcomes?

Hazing

Like alcohol use, hazing is a problematic behavior often associated with fraternity membership (e.g., Allan & Madden, 2008). Hazing affects members of groups in and outside of education, but it has particularly strong, historic roots in higher education (Parks, Jones, Ray, Hughey, & Cox, 2015). This concerning behavior has long been associated with college social fraternities (Barber, 2012; Parks et al., 2015; Syrett, 2009). The issue is so systemic that Allan and Madden (2008) noted hazing "is woven into the fabric of student life and campus culture in U.S. colleges and universities" (p. 36). It might be unsurprising then that research on the present-day men's social fraternities has found that a majority of members endured hazing during their newcomer experiences (Allan & Madden, 2008; Owen et al., 2008). While hazing has been associated with the emotional and physical harm of those endure or perpetuate this behavior (Allan & Madden, 2008; Hoover & Pollard, 2000; Owen et al., 2008), hazing is an understudied phenomenon (Biddix et al., 2014; Owen et al., 2008).

The lack of scholarship on hazing might due to the fact that there is no widely accepted scholarly definition for the term (Biddix et al., 2014; Ellsworth, 2006). In the first national collegiate hazing study, Hoover and Pollard (1999) defined hazing as "any activity expected of someone joining a group that humiliates, degrades, abuses or endangers, regardless of the person's willingness to participate" (p. 8). Subsequent studies relied on this or similar definitions

to explore particular behaviors (e.g., coerced binge drinking), or psychological and physical outcomes associated with hazing (e.g., Allan & Madden, 2008; Campo, Poulos, & Sipple, 2005; Ellsworth, 2006; Hoover & Pollard, 2000; Owen et al., 2008). Hoover and Pollard's (1999) failure to operationalize hazing has prevented more comprehensive research utilizing their definition.

Challenging the activity-based definition of hazing, Cimino (2011) argued that some behaviors associated with newcomer experiences, though unpleasant, might be attributable to the nature of the group. For example, a cross country team newcomer might be required to run a mile under five minutes in order to make a team. Though this task might be arduous, running a distance as quickly as possible is the fundamental objective of this sport. With this criticism in mind, Cimino (2011) defined hazing as "the generation of induction costs (i.e., part of the experiences necessary to be acknowledged as a 'legitimate' group member) that appear unattributable to group-relevant assessments, preparations, or chance" (p. 242). The literature on hazing would be bolstered by examining group members' rationales for including irrelevant activities, assignments or tasks in their newcomer socialization processes, though this investigation is beyond the scope of the present study.

In addition to examining the prevalence of hazing in college student groups (e.g., Allan & Madden, 2008), scholars have examined the motivations of students to haze other students. Researchers have found that students haze newcomers to promote solidarity among group members (Campo et al., 2005; Cimino, 2011, 2013; Keating et al., 2005), maintains group hierarchy or group identity (Keating et al., 2005; Waldron & Kowalski, 2009), and instills conformity (Allan & Madden, 2008; Owen et al., 2008). From the results of two experimental random design studies, Cimino (2011, 2013) found a positive relationship between participants'

endorsement of severe hazing practices and the perceived benefits associated with the membership in specific groups. Though these experiments were based on participants' responses related to their hypothetical membership fictitious groups, the researcher theorized that veteran group members are motivated to engage in hazing to prevent newcomers from taking advantage of unearned group benefits. Application of Cimino's (2011, 2013) research to investigate the hazing motivations of actual group members is an exciting avenue for future scholarship on this topic. Understanding individuals' motivations to engage in hazing rather than identifying their hazing behaviors might prove to be a more effective strategy for research on this topic. Sweet (1999) noted the methodological, ethical and legal challenges of studying hazing. First, individuals that have experienced or engaged in hazing may be sensitive about reporting the involvement in hazing activities, and this may result in selection bias because of participant nonresponse. Also, utilizing qualitative methods to understand these phenomena may result in ethical and legal issues because of the potential trauma endured by participants and mandatory reporting laws (Sweet, 1999). Finally, while examining hazing activities has added to the knowledge on this topic, understanding the motivations of potential hazers may allow for the identification of potential interventions to mitigate these behaviors.

While a quantitative study of individuals' motivations to haze newcomers might prove to be a fruitful endeavor to aid in the development of future hazing prevention initiatives, there are no widely used measures for this outcome. However, McCreary and Schutts (n.d.) have developed the Hazing Rationale Scale (HRS) that comports with the findings of Cimino's (2011, 2013) studies on the motivations of hazers. Though this scholarship is in its infancy, the HRS might provide a crucial avenue to investigate the motivations of fraternity men that would otherwise go unexplored in quantitative research.

Hazing and Fraternities

Scholars have identified that the type of hazing behaviors endured and perpetrated by fraternity men differ from members of other student groups (Allan & Madden, 2008; Keating et al., 2005). Allan and Madden's (2008) report on hazing, routinely cited by scholars and practitioners (see Biddix et al., 2014), was the first comprehensive study on the prevalence of hazing in college and university student organizations. While this report did not focus only on social fraternities and sororities, only the findings relevant to this population and college men are reviewed in this chapter. Relying on a random stratified sample of 11,482 undergraduate participants from 53 higher education institutions, Allan and Madden found that 73% of 1,295 fraternity and sorority member participants reported that they had endured one or more hazing behavior, compared to 55% of the entire sample. They also identified that alcohol was commonly included in hazing activities, as 53% of fraternity and sorority members reported that they participated in drinking games as newcomers. Other hazing behaviors experienced by fraternity and sorority members included public humiliation, binge alcohol consumption, sleep deprivation, and verbal assaults from veteran members (Allan & Madden, 2008).

While the majority of studies on fraternity membership and hazing have utilized quantitative methods, several scholars have explored these topics through qualitative studies (Cimino, 2016; Sanday, 1990/2007; Sweet, 1999). Sanday (1990/2007), and Cimino (2016) examined fraternity hazing practices through ethnographic studies of single fraternity chapters. Sanday (1990/2007) examined the culture of a high-social status fraternity at the University of Pennsylvania that may have contributed to a gang rape committed by its members. She argued that violent and degrading hazing practices served to indoctrinate newcomers into a fraternity culture that denigrated women, and as a mechanism for bonding. Cimino (2016) did not attempt

to provide a theory for fraternity hazing, but instead elected to explore a subset of hazing practices that he referred to as “planned failure”, providing a task for newcomers that is impossible to fulfill. He found that planned failure was a central element of the hazing conducted by the studied fraternity, and suggested that fraternities rely on planned failure as means to displace responsibility for hazing, foster solidarity, establish a membership hierarchy that subordinates newcomers, and to socialize newcomers into the culture of the fraternity. Members of fraternities might be motivated to engage in hazing, because they view these practices as effective mechanisms to socialize newcomers into their organizations. However, why are fraternity men so prone to engage in hazing and other problematic behaviors?

Men, Masculinities and Problematic Outcomes

Understanding the construction of masculinities within college fraternities might be critical to challenge the problematic behaviors of fraternity men. Kimmel (2008) argued that young men, those often in college, pursue opportunities to validate their manhood, but that they attempt to do so in environments of other young men who are insecure about their own gender performances. Therefore, these young men are required to prove their masculinities by engaging in perceived overt, risky masculine behaviors, like binge drinking (Vandello & Bosson, 2013). Similarly, in a study to develop a theory about the college men’s identity development, Edwards and Jones (2009) identified that men overconformed to masculine norms to hide their insecurities and prove their manhood to themselves and their peers. For men that attempt to conform to hegemonic masculinity in college, partying is a central outlet to perform as a man (Edwards & Jones, 2009; Kimmel, 2008). College men view their peers that elect not to drink alcohol as deviants. This population also often conforms to the expectations for men to be violent, fight, be competitive, and be promiscuous (Edwards & Jones, 2009).

Colleges and universities may serve as unique forums for the socialization of gender. Vandello and Bosson (2013) theorized that contextual and situational factors may generate threats to an individual's standing as a man. For young adults who transition from high school to college, this period that includes the loss of status and established masculinities from their adolescents may serve as motivations for college men to prove their manhood to themselves and others (Kimmel, 2008; Syrett, 2009). Therefore, in addition to the chronic concerns about their masculinity, the undergraduate experience may exacerbate the perceived threats to manhood among college men, and may be contextually different between institutions or peer subgroups.

In addition to threatening an individual's status as a man, this transition period may isolate a young man from the other men who he has developed close relationships with prior to college. The literature indicates that men have difficulty forming relationship with other men (Addis, 2010), and college men are not different (Davis, 2002). Yet, the reliance on other men may be heightened during a man's college experience in order to cope with the intense and competitive academic and social demands in this context (Harris, 2010). To foster, reinforce and maintain these relationships, college men may engage in overt masculine gender performance, including engaging in heavy drinking or hazing.

College men may not only seek out relationships with other men as a coping mechanism, but they may also be in search of gender role models. After all, men often publicly perform masculinity to prove and retain their status as men for other men (Vandello & Bosson, 2013). Harris (2010) noted that college men attributed much of their precollege gender socialization to role models, and that they continued to emulate other men once they were in college. To avoid social ostracism and threats to their manhood, college men observe or seek out other men to

learn the appropriate gender performances to navigate the college experience (Edwards & Jones, 2009; Harris, 2010).

Not all college men perform masculinity in same manner (Edwards & Jones, 2009; Harris, 2010; Harris & Harper, 2014). In a qualitative study that relied on a convenience sample of 68 undergraduate men at a single private institution, Harris (2010) found that contextual factors influenced men's masculine gender performances. He identified five aspects that affected the gender performances of the participants. First, men's precollege socialization affected their masculine gender performances in college. The participants identified that they learned the correct and incorrect ways to perform gender from family members, peers, and other experiences. College men often observe and replicate the traditional masculine performances of older men, particularly their fathers or father-like figures (Harris, 2010; Harris & Harper, 2015; Kimmel, 2008; Pollack, 1998). Harris (2010) found that the participants in his study were influenced by their campus contexts, their academic pursuits, the activities the engaged in, and their relationships with other college men. While men might enter college with some prescribed gender performances, masculinities likely vary from institution to institution. However, no research has examined how masculinities vary between campuses.

This investigation is grounded in the perspective that gender is not a fixed biological trait, but instead a pattern of performances shaped by social constructs (Butler, 1990). Masculinities and femininities are conceptualized and reinforced in society through the actions and discourse of individuals. These perceived gendered identities are void without the accompanying performances. Individuals with power and privilege influence and reify the normative conceptualization of masculinities, placing a specific masculinity as the dominant standard against which others are judged in a society (Connell, 1987; Connell & Messerschmidt, 2005).

Though this hegemonic masculinity may be limited to a minority of society members, all other masculinities are subordinated unto it. Incorporating the concept of power provided by Foucault (1980), Connell and Messerschmidt (2005) argued that hegemonic masculinities are not maintained through force. Rather, they identified that, "Cultural consent, discursive centrality, institutionalization, and the marginalization or delegitimation of alternatives are widely documented features of socially dominant masculinities" (p. 846). Hegemonic masculinities dictate the valid gender performances for individuals, and promote conformity within our society.

Because hegemonic masculinities are idealized and serve as the benchmark for what it means to be a man, men strive to prove their masculinity throughout their lives. This process is laborious, and fraught with obstacles that challenge men's gender performances (Vandello & Bosson, 2013). The efforts to achieve hegemonic masculinity, or the failure to do so, have consequences for individuals that identify as men (O'Neil, Helms, Gable, David, & Wrightsman, 1986; Pleck, 1981, 1995; Vandello & Bosson, 2013). The experience of performing masculinity can be stressful and anxiety-provoking, and masculinization might in some circumstances be traumatic (Lisak, 2005). Because of the detrimental effects on an individual's mental health, and men with may utilize problematic coping mechanisms to deal with these outcomes (e.g., alcohol abuse) (O'Neil, 2013). Attempting to conform to traditional conceptualizations of masculinities may serve as the basis for many of the problematic outcomes associated with manhood.

Conformity to hegemonic masculinity may not only have consequences for individuals that identify as men, it may also diminish their desire to utilize support mechanisms to mitigate these issues. Masculinity is largely conceptualized in opposition to femininity (Kimmel, 2008), and many help-seeking and positive health practices are viewed as feminine (Courtenay, 1998,

2000). Courtenay (2000) theorized that masculine gender performances have tangible consequences for men's health. Because violence, self-reliance, and risk-taking are commonly viewed as masculine norms (Mahalik et al., 2003), individuals often jeopardize their health and wellbeing to be identified as real men. Men are more likely to engage in performances that may result in personal harm (e.g., fighting), and they are less likely to seek support to benefit their health (Addis & Mahalik, 2003; Burns & Mahalik, 2008; Hamilton & Mahalik, 2009; Mahalik et al., 2013). Also, these unhealthy behaviors may have negative consequences for the health and safety of others (e.g., harms caused by hazing) (Kimmel, 2008). For the most part, individuals do not seek out opportunities to jeopardize their wellbeing. However, men behave in unhealthy ways in order to pursue the benefits that accompany the adoption of hegemonic masculinity (e.g., social status) (Courtenay, 2000). To be viewed as a "real man", and garner the success that may accompany it may be powerful motivators for college men to engage in problematic behaviors.

Fraternities and Masculinities

By their design as organizations exclusively for men to make better men (e.g., Beta Theta Pi, n.d.), fraternities are gendered organizations that perpetuate masculine norms (DeSantis, 2007). These organizations might not only influence the behaviors of their members and their peers, but because of their prominence at some higher education institutions, they might possess the power and privilege to shape the conception of manhood among their members, their campus communities, and across society (Harris, 2010; Syrett, 2009). As put by Syrett (2009) in his historical analysis of gender performativity and fraternity membership, "fraternal masculinity has set standards for life beyond the college campus" (p. 3). Fraternities discipline and reinforce hegemonic masculine gender performances (DeSantis, 2007; Kimmel, 2008; Sanday, 1990/2007; Syrett, 2009). In doing so, fraternities reify what it means to be a man at their institutions.

In addition to their positions of power, the environment of a fraternity may have significant influence on the gender socialization of its members. Because men perform masculinity to gain the acceptance and approval from other men (Vandello & Bosson, 2013), the single gender nature of men's fraternities may increase the pressure on members to conform to traditional masculinities (Seabrook, Ward, & Giaccardi, 2018). This may be a fundamental reason fraternity men conform to hegemonic masculinity than other college men (Seabrook et al., 2016). In addition to these increased pressures, fraternities provide college men with forums to public demonstrate their manhood (Sanday, 1990/2007; Syrett, 2009). In a society that lacks formal rites of passages into manhood, fraternity initiations serve as a means for men to validate their manhood by becoming "fraternity men". Because fraternities provide a clear path for men to prove their manhood, gain power and establish intimate relationship with other men, men with heightened concerns about their masculinity may be motivated to join these organizations and engage in masculine gender performances (e.g., first year students) (Syrett, 2009).

As posited by Connell and Messerschmidt (2005) in their review of hegemonic masculinity, the conception of the ideal masculinity within college fraternities is constantly evolving based on the effects of internal and external influences (Syrett, 2009). For example, Syrett (2009) postulated that the increased presence of women at undergraduate institutions valorized gender performances that promoted homophobia and exerted men's power over women. Though the gender performances of fraternity members are continually shifting, fraternities rigidly enforce the appropriate performances for their members (DeSantis, 2007; Syrett, 2009). In fact, as evident in the previous example, the hegemonic masculine performances promoted by fraternities might serve as the origin of the problematic behaviors of

fraternity men (Harris & Harper, 2014; Kimmel, 2008; Martin & Hummer, 1989; Martin, 2016; Sanday, 1990/2007; Syrett, 2009).

The masculine gender performances of fraternity men have been linked to a number of concerning outcomes, including problematic alcohol use and hazing (e.g., Kimmel, 2008). The earliest research on fraternities and hegemonic masculinity found that the masculinities espoused by these organizations resulted in hostile, and even violent, environments toward women (Martin & Hummer, 1989; Rhoads, 1995; Sanday, 1990/2007). Fraternities reinforced patriarchy, and their members objectified women. As noted by Syrett (2009), "In fraternities, manhood is affirmed, but at a cost: the devaluation of women" (p. 287). In addition to fostering climates that are aversive toward women, the masculinities espoused by fraternities has been found to promote or reinforce homophobia (Hesp & Brooks, 2009; Rhoads, 1995; Syrett, 2009), promote alcohol abuse (DeSantis, 2007; Kimmel, 2008), hazing (DeSantis, 2007; Kimmel, 2008), and violence and fighting (DeSantis, 2007). As DeSantis (2007) noted, "the American Greek system is Butlers' worst theoretical nightmare…. [F]raternities and sororities proudly and fiercely reproduce *many* of the most traditional and harmful ideas about gender through their scripted performances" (p. 27).

While the link between fraternal masculinities and problematic outcomes is reason for significant concern, not all fraternities enact masculinities in the same manner (Anderson, 2008; DeSantis, 2007; Harris & Harper, 2014). In other words, hegemonic masculinity may not be uniformly performed across all fraternities. Like the contextual factors that influenced the masculine norms of men in Harris' (2010) study, masculinities may vary between fraternities and fraternity chapters (DeSantis, 2007). In a qualitative study of 50 undergraduate men from a single national fraternity that engaged in healthy behaviors, regarded women as their peers, and

challenged homophobia, racism and sexism, Harris and Harper (2014) asserted that some participants benefited from being members of chapters that allowed men to stray from traditional masculine gender performances. However, even in these chapters, particular masculinities took precedent, and men were disciplined to conform to the chapter-held masculine norms. Some masculinities promoted and reinforced by fraternities might diminish the problematic outcomes associated with these organizations.

While it is promising that fraternities might promote conceptualizations of masculinity that negatively relate to problematic outcomes, the scholarship on this topic is limited to three qualitative studies, and two of these studies are limited to single institutions. More research is needed to explore how masculinities vary, if at all, between fraternity chapters, and how these variations affect student behavioral outcomes.

Fraternities, Masculinities, and Alcohol

An emerging group of scholars have argued that alcohol is used as a discursive mechanism to influence the social construction of masculinities (Peralta, 2007; West, 2001), but, forces within American society have idealized alcohol use as a fundamental aspect of hegemonic masculinity (West, 2001). Alcohol is also used by men to bond and build social relationships with other men (Addis, 2010; Kimmel, 2008; West, 2001). Alcohol use is a gender performance that is strikingly viewed as masculine. Unfortunately, a majority of the literature on fraternities and sororities, and alcohol conflates gender and biological sex as synonymous terms (e.g., Borsari, Hustad, & Capone, 2009).

Alcohol use has been embedded in the construction of manhood for fraternity men since social fraternities were first founded in the mid-nineteenth century (Syrett, 2009). Through a historical document analysis of fraternity member correspondence and other materials to

investigate the influence of fraternities on masculinity, Syrett (2009) observed, “Fraternity men, always the first to embrace attitudes and behaviors that would mark them as manly, were drinkers” (p. 156). Even in fraternities that allow greater flexibility in the accepted gender performances of their members have been found to maintain binge drinking cultures (Anderson, 2008). Though the norms around alcohol use have changed with each generation of college students, fraternities and their members have continually emboldened the drinking culture at their institutions (Kimmel, 2008; Syrett, 2009).

Providing similar rationales to the scholars that have investigated chapter differences in members’ alcohol use, others have argued that one reason men drink is to gain the social support of other men (Addis, 2010; Kimmel, 2008; Sasso, 2015; Sweeney, 2014). Kimmel (2008) noted that alcohol use differs between groups of friends, including fraternities, because these groups serve as settings to indoctrinate and reinforce alcohol use norms (Addis, 2010). In an ethnographic study at a single institution where 49.4% of students were affiliated with fraternities and sororities, Boswell and Spade (1996) compared and contrasted the fraternities identified by women students as high and low risk environments for sexual assault. These researchers found that alcohol consumption was a dominant aspect of social gatherings at high-risk fraternity houses, and, while important, it was less of a focal point at lower-risk fraternity parties. High-risk fraternity members also engaged in rigid, more problematic behaviors of hegemonic masculinity, including perpetuating environments that subordinate and victimize women (Boswell & Spade, 1996; Martin & Hummer, 1989; Sanday, 1990/2007). Masculinity may be enacted differently between fraternity chapters, and these performances may result in the problematic drinking associated with this population (DeSantis, 2007; Kimmel, 2008)

The literature on masculinities, fraternities and alcohol has also identified that alcohol use outcomes might be a result of the perpetuation of particular masculine norms. Congruent with the broader findings of Peralta (2007) on the use of alcohol by college men to enact masculinities, other qualitative scholars have found that alcohol has been used by fraternity men as a mechanism for competition (e.g., drinking games), to symbolize their toughness and take risks, as a social lubricant to aid in the pursuit of women sexual partners to prove one's heterosexuality, and to exert power over women (e.g., fraternities serve the alcohol to their women guests) (DeSantis, 2007; Kimmel, 2008; Sasso, 2015; Sweeney, 2014; West, 2001). As noted by Sweeney (2014), performing masculinity in these ways may be of particular importance to fraternity members that strive for upward mobility and dominant standings as men in society. Therefore, problematic alcohol use serves as a means for fraternity men to conform to hegemonic masculinity.

While these qualitative findings provide insights into the relationships between masculine norms and the alcohol-related behaviors of fraternity men, these studies lack generalizability beyond their research populations. However, few scholars have examined the relationships among fraternity membership, masculinity, and alcohol-related outcomes. The extant literature has relied on the Conformity to Masculine Norms Inventory (CMNI) developed by Mahalik et al. (2003) or more parsimonious versions of the scale to examine these relationships (Iwamoto, Cheng, Lee, Takamatsu, & Gordon, 2011; Iwamoto et al., 2014). Iwamoto et al. (2011), conducting negative binomial regression analysis on data collected from a convenience sample of 776 undergraduate men from a large public Southern Californian university, found that the risk-taking and playboy masculine norms, perceived peer norms around drinking, and fraternity membership positively predicted participants' drinking to intoxication. The masculine norms of

emotional control and heterosexual presentation had negative relationships with this outcome. Additionally, fraternity membership, perceived peer norms, and the masculine norms of risk-taking, power over women, playboy, self-reliance, and primacy of work were positively related to individuals problematic alcohol-related outcomes (Iwamoto et al., 2011). These results were largely replicated by Iwamoto et al. (2014) using structural equation modeling, and are consistent with qualitative research on fraternity men, masculine norms, and alcohol-related outcomes. However, because Iwamoto et al. (2011, 2014) examined fraternity men as a monolithic population, little is known about if and how contextual factors may influence the relationships among masculine norms and the members' alcohol use. There is a glaring need for quantitative research that examines the relationships between the masculine norm climates perpetuated by fraternities and the members' problematic outcomes such as problematic alcohol use. This research would bolster the qualitative findings examined earlier in this section (e.g., Sweeney, 2014). A quantitative study of this nature may provide new knowledge on the relationships between collective masculine norms held by fraternities and other problematic behaviors related to fraternity membership.

Fraternities, Masculinities, and Hazing

Research has identified that hazing experiences are more prevalent among men than women (Allan & Madden, 2008; Campo et al. 2005). Other studies have reported that men are less likely than women to believe that the process of joining a fraternity or sorority should be a positive experience (Cokley et al., 2001). While hazing might be attributable to masculine gender performance (DeSantis, 2007; Kimmel, 2008) few researchers have explored the relationships between masculinities and hazing behaviors. The literature on these topics are products of qualitative studies, and most scholarship comes from books, not refereed publications (e.g.,

DeSantis, 2007). There is a void in the literature on masculinity and hazing that is ripe to be examined by future research.

Though the literature is scant, scholarship on the intersection of manhood and hazing is not a new phenomenon. Tiger (1969/1984) theorized that the men's groups were the result of a biological need for male bonding, and men's groups, such as fraternities, are desirable mechanisms for men to foster social hierarchies and preserve power for their members. Like Cimino (2011, 2013), Tiger (1969/1984) argued that hazing serves as an exclusionary mechanism to limit newcomers from benefiting from a group's male bonding practices. He theorized that hazing elicits strong emotional responses from participants, and that these emotions foster solidarity among men. Of particular relevance to the current study, Tiger (1969/1984) postulated that aggression, dominance, and homoerotic experiences were fundamental elements of male bonding practices for men's secret societies.

Unlike Tiger (1969/1984), the majority of the literature on fraternity hazing and masculinity rejects the notion that masculinity is the result of the innate needs of men (Anderson, McCormack, & Lee, 2012; DeSantis, 2007; Kimmel, 2008; Rhoads, 1995; Sanday, 1990/2007; Syrett, 2009). Hazing has been consistently linked to hegemonic masculinity (DeSantis, 2007; Kimmel, 2007; Sanday, 1990/2007; Syrett, 2009). As Kimmel (2008) noted, "Initiations…are all about masculinity – testing it and proving it" (p. 99). Like alcohol use, hazing behaviors serve as conduits for fraternity men to construct and perform traditional masculinities.

While research has found that men rationalize hazing as a means to promote group solidarity or bonding (e.g., Kimmel, 2008; Sanday, 1990/2007), several scholars have suggested that hazing serves as a gatekeeping mechanism to preserve space that is specifically for men (Kimmel, 2008; Syrett, 2009). To accomplish this task, hazing often reinforces the dominant

standing of men over women (DeSantis, 2007; Kimmel, 2008; Sanday, 1990/2007; Syrett, 2009). For example, Kimmel (2008) noted that homophobia is rampant in fraternity hazing practices. Syrett (2009) argued that fraternity men rely on hazing to avoid ridicule for the highly coveted intimate and vulnerable relationships maintained between members. Because these relationships may appear to be feminine in nature, fraternity men utilize hazing to prove they are not gay. In other words, by engaging in risky, violence or demeaning practices, fraternity men display that they are real men (Kimmel, 2008; Syrett, 2009).

In support of this theory, DeSantis (2007) identified that hazing behaviors were more prevalent in high-status fraternities that valued rigid, traditional gender norms. For example, the study found that the members from popular fraternities viewed violent and arduous hazing practices, such as military-inspired calisthenics, provided forums for newcomers to prove their manhood. Additionally, high-status fraternity members sneered at lower-status fraternities that did not engage in hazing because these groups did not engender real men. DeSantis' (2007) study, while isolated to one public research institution, provides evidence that masculinities may vary from chapter to chapter, and these performances might be directly related to the hazing practices found in these groups.

In contradiction with DeSantis' (2007) findings related to organization status, masculinity and hazing, Anderson (2008) reported in his two-year ethnographic study of a prestigious fraternity chapter at a university with 19,000 students that the organization allowed its members to stray from hegemonic masculine gender performances. For example, Anderson asserted that the chapter members aspired to be inclusive to gay men, and to treat women with respect and dignity. Importantly, the study found that the chapter members did not engage in hazing. While these studies may have contradictory findings related to the influence of organizational prestige,

the literature indicates that chapters that impose hegemonic masculine norm climates engage in hazing, while those than allow greater flexibility with gender performativity may be less inclined to rely on hazing practices (DeSantis, 2007; Anderson, 2008).

Unlike the research on alcohol (e.g., Iwamoto et al., 2011), there is a dearth of literature on the relationships of fraternity membership, racial and ethnic identities, and hazing. Other than one dated study that found some differences between students' attitudes toward the fraternity or sorority newcomer experience based on their identified races and ethnicities (Cokley et al., 2001), no scholarship has examined the relationships of students' racial and ethnic identities, and any hazing-related outcomes. The only other scholarship on the topic compares the hazing experiences of members of historically Black fraternities and their predominantly White counterparts (e.g., Parks, Jones, Ray, et al., 2015; Parks & Spencer, 2013). Because of Cokley et al.'s (2001) findings, this study controlled for participants' race and ethnic identities.

Like the dearth of scholarship on race, ethnicity and fraternity hazing, there is no literature that examines how fraternities housing relates to members' hazing-related outcomes. However, most fraternity-related injuries and deaths, including those associated with hazing, occur in fraternity houses (Flanagan, 2014). Because of the consistent findings regarding members' alcohol use and housing, and Flanagan's assertion, an examination of the relationships among hazing-related outcomes and fraternity house residency is warranted.

Organizational Socialization

While the masculine norm climates of fraternities may contribute to the problematic behaviors of fraternity men, it is also important to understand how these students are socialized into their groups. Organizational socialization – the processes used by organizations to indoctrinate organizational culture, and to promote individuals' development of the

competencies they need to assume organizational roles and responsibilities (Louis, 1980; Schein, 1967) – is often a priority of college social fraternities (e.g., Kappa Alpha, n.d.). Individuals joining a new organization, like a fraternity, might be particularly susceptible to new influences because they are not fully aware of a group's norms and expectations (Ashforth & Saks, 1996). Ashforth, Sluss, and Harrison (2007) argued that well implemented socialization efforts help newcomers understand their organizations, their fit within them, and facilitates their adjustment. Ashforth, Sluss and Harrison stated, "Positive experiences can foster learning, confidence, and credibility, thereby paving the way for further growth opportunities and additional learning, confidence, and credibility" (p. 2). However, newcomers can also be socialized into organizational cultures to engage in unethical and other problematic behaviors (Ashforth & Anand, 2003). The benefits and consequences of organizational socialization can extend beyond an individual's newcomer experience. Organizational socialization into fraternities impacts student outcomes, and can have reverberations throughout their educations and lifelong learning experiences.

As an aspect of their seminal theory on organizational socialization, Van Maanen and Schein, (1979) proposed six socialization tactics that organizations can employ to orient and promote the adjustment of newcomers to their new organizational roles. Each of their six tactics fluctuate along continuums, with the tactics identified by the extremes of each continuum. The first tactic is collective vs. individual socialization processes. Collective socialization processes group newcomers together, and provide these individuals with uniform experiences to promote their transitions into their roles, whereas individual socialization tactics provide unique transitional experiences crafted for each newcomer. Within the context of a fraternity, many newcomers are grouped into a "pledge class" with fellow their newcomers to create a shared

transitional experience. The tactic of formal vs. informal socialization distinguishes between the practice of providing newcomers with transitional processes segregated from more veteran organizational member, and the practice of fully integrating newcomers in the routine affairs of the organization. The sequential vs. random socialization tactic proposed by Van Maanen and Schein (1979) identifies a continuum from finite linear processes that newcomers engage in that lead to their prospective roles in organizations, to ambiguous and fluctuating transitional process that lack a definitive pattern. Similar to the previous tactic, fixed vs. variable socialization differentiates between newcomer transitions that operate along definitive time schedules (i.e., fixed socialization), to variable periods that lack specific end dates. The tactic of serial vs. disjunctive socialization is based on the mentorship and guidance newcomers receive from veteran organizational members (Van Maanen & Schein, 1979). The former socialization process fosters relationships between the newcomer and one or more of the veteran members to support their adjustment to the organizations, whereas mentoring is absent from the latter. For example, some fraternities pair newcomers with veteran member "big brothers" to aid their transitions into their chapters. The final socialization tactic is investiture vs. divestiture (Van Maanen & Schein, 1979). Investiture processes respect and recognize the unique identities and beliefs of newcomers, while the latter processes disaffirms the identities and personal attributes of this population. Each organization varies with their implementation of these tactics, and there is a breadth of workforce literature that has examined the relationships of these tactics to a host of member outcomes.

Jones (1986) categorized the bipolar tactics as either being institutionalized or individualized socialization tactics. Institutionalized socialization, the collective, formal, sequential, fixed, serial, and investiture tactics, are those that are highly intentional and

structured to promote newcomer socialization into the cultures of organizations. The latter extremes, collectively termed individualized socialization, consist of those that tend to be more passive about the newcomers' transitions into their organizations.

Scholarship on Van Maanen and Schein's (1979) organizational socialization tactics, while isolated to professional environments, should serve as a basis for future research on newcomer socialization in college social fraternities. Researchers have found that institutionalized tactics positively relate to newcomers' personal change and learning (Ashforth & Saks, 1996; Ashforth, Sluss, & Saks, 2007), social acceptance (Bauer et al., 2007; Saks et al., 2007), organizational commitment (Bauer et al., 2007; Gruman, Saks, & Zweig, 2006; Saks & Ashforth, 1997; Saks et al., 2007), and person-organization fit (Cable & Parsons, 2001; Kim, Cable, & Kim, 2005; Saks et al., 2007). Summarizing 25 years of literature on socialization tactics, (Saks & Gruman, 2012) observed, "institutionalized socialization tactics result in more positive socialization outcomes than individualized socialization tactics" (p. 37).

In deeper examinations of the institutionalized tactics, researchers have investigated the effects of particular tactics on member outcomes. In meta-analytic review of the literature on newcomer socialization, Bauer et al. (2007) asserted that the social acceptance of newcomers is a central element of organizational socialization. These scholars found statistically significant positive relationships between fixed, serial and investiture socialization tactics and the social acceptance and overall adjustments of newcomers (Saks et al., 2007). This aligns with Jones' (1986) assertion that the social tactics of investiture and serial socialization were the most important because they facilitate role modeling and facilitate learning. Because of this finding, these scholars recommended, "organizations may consider giving employees feedback affirming their role as insiders and assign them a mentor to guide their adjustment" (Bauer et al., 2007, p.

717). Also, social acceptance had a stronger positive correlation with role performance of newcomers transitioning from their undergraduate experience to professional careers than for newcomers transitioning between careers (Bauer et al., 2007; Saks et al., 2007). The serial and investiture tactics had the strongest relationships with newcomers' perceived fit in their organizations. Cable and Parsons (2001) posited that socially supportive organizational environments that reduce ambiguity about their roles allowed newcomers to feel accepted in their organizations. Similarly, Saks et al. (2007) found that the social tactics, serial and investiture, were the strongest predictors of organizational commitment. Investiture has been found to be negatively associated with turnover (Bauer et al., 2007), and positively relate to job performance (Saks et al., 2007). The investiture vs. divestiture socialization might be the most important in organization socialization efforts.

The investiture vs. divestiture tactic may be of critical importance to organizations that value and maintain distinctive organizational identities (Bourassa & Ashforth, 1998). Scholars have found that investiture negatively related to the personal change (Ashforth & Saks, 1996), and organizations hoping to motivate organizational conformity might rely on divestiture tactics. For example, Schaubroeck, Peng, and Hannah (2013) observed that divestiture was a fundamental aspect of boot camp for new Army recruits in order to indoctrinate them with the values and identity of the military. In their ethnographic study of new recruits to an Alaskan fishing vessel, Bourassa and Ashforth (1998) found that divestiture tactics motivated newcomers "to remake themselves in the image of a real fisherman" (p. 193). While these efforts promoted group solidarity, it also led to significant turnover among boat newcomers. While divestiture might be problematic related to a number of organizational outcomes (e.g., newcomer adjustment), it might be an effective mechanism to promote conformity to group norms. Because

fraternities have been identified as organizations prone to member conformity (DeSantis, 2007; Sanday, 1990/2007), they may serve as the ideal setting to investigate investiture socialization.

Investiture vs. Divestiture Socialization and Fraternities

As identified in Chapter I, fraternities value organization socialization, and invest significant time and resources transition newcomers into their organizations (e.g., Kappa Alpha, n.d.). While all organization are gendered, and disseminate particular gender norms (Acker, 1990), college social fraternities commonly espouse that their purposes are to create better men (Syrett, 2009). It would seem probable then, that some fraternities, like other masculinized organizations such as the military or fishing vessel that value traditional masculine norms, would rely on divestiture socialization as gendered structures to promote conformity to the ideal gender performances of held by the groups. However, there is no scholarship that examines the relationships among organizational socialization tactics and the outcomes of college student organization newcomers, or organizational socialization tactics and newcomers' adoption of gender norms.

While there is no research on these topics, Cimino (2016) and Rhoads (1995) asserted that organization socialization is an essential aspect of the fraternity newcomer experience. Rhoads (1995) argued that even in a fraternity that had abolished its formal newcomer period and abandoned hazing practices, newcomers were socialized to assume the masculine norms of the group through other gendered structures. In particular, alcohol and partying have been reported as mechanisms to socialize newcomers to conform to the masculine gender norms of their fraternities (Rhoads, 1995; Sasso, 2015). To explain why fraternities rely on planned failure in their newcomer processes, Cimino (2016) theorized that veteran members use this mechanism in attempt to reduce the proactivity of newcomers in order to force their conformity to the values

and beliefs of their organizations. In other words, planned failure might be a mechanism used by fraternities to implement divestiture socialization. If masculine norms relate to problematic outcomes like hazing and alcohol use, it is a possibility that fraternity chapters that utilize divestiture socialization diminishes the influence of an individual's masculine norms adoption on these outcomes, and increases the significance of the masculine norm climate perpetuated by the chapter. Therefore, this study examined the relationships between the masculine norm climates of fraternity chapters and the problematic behaviors of their members, and also explored the influence of investiture socialization on the relationships between individual masculine norm conformity and problematic behaviors if these relationships varied between fraternity chapters.

Summary of Literature

The literature on fraternities has routinely connected these organizations and their members to hegemonic masculinity (e.g., Kimmel, 2008), and members' conformity to traditional masculine norms have been found to relate to problematic outcomes (Boswell & Spade, 1996; DeSantis, 2007; Rhoads, 1995; Sanday, 1990/2007; Syrett, 2009). The substantial body of scholarship on fraternity members and their alcohol use has found that this population consumes more alcohol and engages in other alcohol-related outcomes more than their unaffiliated student peers (e.g., Wechsler et al., 2006). While there is less research on hazing than on alcohol use, the literature indicates that the majority of fraternity men experience hazing as newcomers (Allan & Madden, 2008). Both alcohol use and hazing have been identified as traditional masculine gender performances (Kimmel, 2008; Peralta, 2007; West, 2001).

While the relationships among fraternities, masculinity and problematic outcomes are of paramount concern, a primary limitation of the literature is that fraternity members routinely are examined as a monolithic population. However, researchers have identified that fraternities are

heterogeneous (e.g., Caudill et al., 2006; DeSantis, 2007), and that members' experiences vary based on contextual factors. Multiple studies have found that members' alcohol use varies between chapters (Caudill et al., 2006; Crosse et al., 2006; Reis & Trockel, 2003; Trockel et al., 2008, 2003). However, these quantitative studies rely on positivistic epistemologies that fail to critically examine the power fraternities have over their members. Though the research is limited to qualitative studies (e.g., DeSantis, 2007), hazing practices may vary significantly between fraternities, too. Understanding how masculinities vary between chapters, and if the masculine norms climates of fraternity chapters predict members' alcohol consumption and motivations to haze newcomers could help to deconstruct the conceptualizations of masculinities in college social fraternities.

Another limitation in the literature is the lack of research on the organizational socialization mechanism utilized by college fraternities. The transition of newcomers into fraternities is viewed as a fundamental aspect of these organizations (Cimino, 2016; Rhoads, 1995), yet no research has addressed this topic. In particular, because the investiture vs. divestiture tactic has been to relate to a host of outcomes in workforce literature (e.g., Saks et al., 2007), and some fraternity chapters might be prone to utilize divestiture tactics to promote newcomers' assimilation to the norms of their organizations, this tactic should receive the attention of researchers. This tactic should garner the interest of critical scholars, because by its nature, divestiture intends to diminish the identities of individuals in favor of the norms of the group (Freire, 1972).

This study addressed the limitations in the literature by utilizing a critical quantitative inquiry to examine how masculine norms vary between chapters, and if the masculine norm climates of chapters relate to members' alcohol use and motivations to endorse particular hazing

behaviors. Building off of the qualitative studies by DeSantis (2007), Harris and Harper (2014) and Anderson (2008), it was hypothesized that masculine norms do vary between fraternity chapters, and that groups fostering traditional masculine norm climates were statistically significantly more likely to have members that report problematic alcohol use and support hazing rationales. In addition, if any of the relationships among individuals' conformity masculine norms and their problematic behaviors vary across the population of fraternity chapters, it was hypothesized that the variance would not be statistically significant with the inclusion of investiture socialization tactic climate into the model as a cross-level moderator.

Theoretical Framework

The majority of the literature on fraternities and their members is grounded in positivistic or postpositivitic epistemologies (Biddix et al., 2014). Biddix et al. (2014) argued that the use of this perspective is a limitation of this research because it fails to generate knowledge about fraternity members' experiences within their contexts, and they called on future scholars to examine this population through different theoretical orientations. This study addressed their call by relying on critical postmodern theory (CPT).

In addition to the limitations identified by Biddix and colleagues (2014), the over reliance on positivistism or postpositivism only serves to reify social constructions like gender, and to bolster hegemonic norms. For example, most research on fraternities and gender equate the latter as an innate, binary construct by reporting participants as either men or women (e.g., Borsari et al., 2009). Because positivistic researchers position themselves as objective bystanders, their findings often naturalize gender differences that perpetuate the dominance of individuals that identify as men over those that identify as women. The use of critical postmodern theory not

only responded to Biddix et al.'s call, but also advance the deconstruction of hegemony for the betterment of oppressed individuals.

Critical postmodern theory is blend of critical theory emergent from the Frankfurt School (e.g., Habermas, 1971), and postmodern theory originally espoused by Lyotard (1984). Though each of these theories have discrepancies over the subject-object dichotomy, Agger (1992) and Watkins (1994) argued that the two share common paradigms (e.g., knowledge as a social construction), and that their comingling provides a powerful tool for social science research. In particular, CPT allows scholars to examine the influence of power on social constructions, and the relationships between themselves and their research, while maintaining "self-reflexive ambivalence" to generalizations, interpretations, and theories (Watkins, 1994). Because CPT originates from two distinct epistemologies, the following paragraphs review the tenets of critical theory and postmodern theory.

Critical inquires examine social constructs and the effects of power with the intent of emancipating oppressed individuals from structures fictitiously perceived to be natural (Butler, 1990; Foucault, 1980; Freire, 1972). Unlike the objective observer role of the positivistic researcher, critical scholars, even those that elected to utilize quantitative designs, must be cognizant of the effects their research on the dominant and oppressed groups (Agger, 1991; Rios-Aguilar, 2014; Stage, 2007). These researchers seek to deconstruct assumptions that define groups such as gender by identifying the discursive practices that reify their existence (e.g., Butler 1990).

While some of the research on fraternities and masculinities has relied on critical theory as foundations for their studies (e.g., DeSantis, 2007; Syrett, 2009), a significant shortcoming of this literature is that the research has been isolated to groups or individuals that possess power.

For example, in his study on the gender performances of fraternity and sorority members, DeSantis (2007) acknowledged that he did not investigate the experiences of lower status fraternity and sorority members to the same extent as those from high status organizations. By not attempting to fully understand the circumstances of individuals that may have been oppressed within the fraternity and sorority community, DeSantis reinforced the power possessed by the dominant organizations. This study addressed this void in the literature, and examined the structures of power among fraternities as measured by their traditional masculine norm climates, but did not attempt to assert that any particular masculine performances or fraternity chapter climates are preferential and deserve greater attention than others.

However, as identified throughout the literature, fraternity men that adopt hegemonic masculine norms (i.e., those that may possess dominant standing), may also have a greater propensity to engage in problematic behaviors that may harm themselves and other members of their organizations (e.g., DeSantis, 2007). In other words, the members of hegemonic groups may also be oppressed. Examining one facet of oppression and not others may have repercussions for individuals confined by the unaddressed social constructs (Stinson & Bullock, 2015). To tackle these multiple truths requires researchers to go beyond critical theory and rely on postmodernism.

While postmodern and critical theorists share the view that knowledge is a social construction, postmodernists differ from their counterparts regarding their assumptions about the state of knowledge (Kilgore, 2001). For postmodernists, knowledge is diffuse and may lack rationality, and is dictated by those with power (Foucault, 1980). For example, potential fraternity newcomers may be offer membership to the same organization. Based on their individual contexts and experiences, one may view this offer favorably because he values the

prestige of the fraternity. The other might be disinclined to join because of its association with problematic outcomes. Within postmodernism, it is acceptable for individuals to maintain varying viewpoints on the same construct because of the potential existence of multiple truths (Kilgore, 2001).

Though postmodern theory disavows mega-narratives and allows for multiple explanations of phenomena, the lack of a central truth inhibits action to address identified forms of power and oppression (Stinson & Bullock, 2012). Through the synergy of a critical postmodern theoretical framework, scholars can pursue, "…evidence of the effects of power, but maintains a more flexible position as the researcher looks for power in multiple forms operating from multiple directions, rather than simply as a form of oppression" (Stinson & Bullock, 2015, p. 13). Therefore, critical postmodern theory can serve as the basis to examine the relationships among the hegemonic masculine norm of fraternities and their members, the problematic outcomes of members' alcohol use and hazing, and investiture socialization, and provide multiple interpretations of the existing constructions rather than isolating the focus on the oppressor/oppressed binary.

Grounded within a CPT framework, the following chapter addresses the methodology of this study. To go beyond the positivistic nature of most research on fraternity men (see Biddix et al., 2014), this study relied on a critical quantitative inquiry (Stage, 2007; Stage & Wells, 2014). In doing so, this study attempted to expose and challenge the current hegemonic power systems within fraternities by examining the influence of fraternity members' contexts on individual outcomes.

Chapter III: Methodology

Problem and Purpose

As noted in Chapter II, the relationships among fraternity membership, and problem alcohol use and hazing are well documented in the literature (e.g., Allan & Madden, 2008; Iwamoto et al., 2011; Wechsler et al., 1996). While opponents of fraternities argue that higher education institutions should ban these organizations because of their high-risk nature (Martin, 2016), these efforts might only intensify the associated behaviors by pushing fraternities off-campus to unregulated locations (New, 2014a). Fraternity membership may also be associated with positive outcomes (e.g., leadership development) (Harris & Harper, 2014). Other intervention strategies may be more effective than simply banning fraternities from higher education institutions.

Little is known about the between-group differences of fraternity chapters (Biddix, 2016; Hevel & Bureau, 2014). It is possible that alcohol misuse and hazing are isolated to specific fraternity chapters, and that new scholarship can systematically identify these groups. Other scholars have identified fraternities as campus centers for hegemonic masculinity (DeSantis, 2007; Kimmel, 2008; Sanday, 1990/2007; Syrett, 2009), and the rigid adoption of traditional masculine norms has been found to relate to an array of problematic outcomes (e.g., binge drinking) (Iwamoto et al., 2011; Iwamoto & Smiler, 2013; Wells et al., 2014). Others have asserted that the high-risk behaviors of fraternity member might be isolated to fraternities that perpetuate rigid masculine norm climates (DeSantis, 2007). The relationships of these variables might provide a promising avenue for future interventions to mitigate alcohol misuse and hazing among college fraternities.

The purpose of the study was to examine if undergraduate fraternity members' conformity to traditional masculine norms varies among fraternity chapters, and how the extent of traditional masculine norms held by chapters relate to students' alcohol use or attitudes toward hazing. Also, if relationships existed between any individual masculine norms and these problematic behaviors and attitudes varied across the population of chapters, then this study examined if the investiture socialization tactic climate utilized by fraternity chapters moderate these relationships. This study attempted to investigate and deconstruct conceptualizations of fraternity masculinity.

Research Design

This study utilized census data collected by Dyad Strategies, LLC. (Dyad) from Philadelphian Fraternity (Philadelphian), a pseudonym for an international college men's social fraternity with 4,051 members. Philadelphian, which can be considered a typical case (Patton, 1990), had chapters located at over 77 higher education institutions in the United States and Canada at the time data were collected between January 29, 2017 and March 10, 2017. Data collection occurred through a cross-sectional web-based survey sent to the full undergraduate membership. The survey included items that address the members' masculine norms, alcohol consumption behaviors, endorsement of hazing rationales, support of investiture socialization tactics implemented by their fraternity chapters, and their demographic information. In addition to the data collected through the survey, Philadelphian staff members provided me with data maintained by their office about their chapters that were included in the chapter-level data set. This included information about the membership sizes of the chapters, and the housing status of each chapter. Other chapter-level variables related to institutional context were collected from the National Center for Education Statistics (NCES) Integrated Postsecondary Education Data

System (IPEDS) (2017), Council of Ontario Universities (COU) Common University Data Ontario (CUDO) (2017), and Universities Canada (n.d.) (e.g., institution sector). This study relied on hierarchical linear modeling (HLM) to analyze the data. This method allowed for an investigation of individual- and chapter-level effects, and was appropriate because the purpose of this study was to examine individual and organizational contexts that relate to an individual's outcomes (Raudenbush & Bryk, 2002).

Research Questions

The following research questions guided the study:

1. What are the alcohol consumption behavior and hazing rationale patterns among fraternity members and their chapters?
2. How do members' conformity to masculine norms vary between chapters, and exhibit chapter-level properties?
3. How, if at all, do the alcohol consumption behaviors and hazing rationales of individual fraternity members vary from fraternity chapter to fraternity chapter, and, if so,
4. How, if at all, do the fraternity chapter masculine norm climates relate to these problematic behaviors and attitudes?
5. If applicable, does investiture socialization moderate the relationship between individual masculine norm adoption and their problematic behaviors or attitudes that vary across the population of chapters?

Rationale for Methodology

The majority of research on college men's social fraternities has been conducted through national surveys, or as single institution comparisons of fraternity members to their unaffiliated

peers (Biddix et al., 2014). Biddix et. al (2014) argued, “Attempting to account for group differences would be worthwhile in promoting a more accurate understanding of the nuances of fraternal organizations” (p. 120). Because a large dataset collected from a single international fraternity with 4,051 members and 77 chapters allowed for HLM analysis, this study increases our understanding about these nuances.

HLM analysis is conducted under the assumption that there are at least two distinct levels of data, and that individuals are clustered into groups at each subsequent level (Raudenbush & Bryk, 2002). For this study, undergraduate fraternity members served as the first level, and their fraternity chapters – branches of the fraternity each uniquely located at different higher education institutions – served as the second level. HLM analyses allow researchers to develop regression models to examine the within-group and between-group variance for a specific outcome (Raudenbush & Bryk, 2002). Because HLM allows for the inclusion of multilevel predictors, this method addresses several concerns related to the influence of clustering on ordinary least squares regression (e.g., underestimation of standard errors) (Raudenbush & Bryk, 2002). Therefore, HLM was the most suitable analysis strategy to examine if differences among fraternity chapters relate to individual outcomes.

Though collecting data through a national or international fraternity is rare (e.g., Caudill et al., 2006), there are no existing national databases other than the ones collected by Dyad that would allow for researchers to examine chapter-level contextual differences with enough multilevel units for HLM analysis. Most national databases view fraternity membership dichotomously. For example, the National Survey of Student Engagement (NSSE) conducted by the Center for Postsecondary Research at the University of Indiana (2016) simply asks participants to respond if they are or are not a member of a social fraternity or sorority. Amassing

a new national fraternity dataset directly from individual institutions would have required time and resources that are beyond the scope of this study. Utilizing the data collected by Dyad from a single international fraternity provided the best avenue to efficiently examine differences that may exist between fraternity chapters.

Critical Quantitative Inquiry

Though most quantitative studies are framed by positivistic or postpositivistic epistemologies, the intent of this study was to examine and challenge the construction of hegemonic masculinity across the chapters of a national college social fraternity. Quantitative examinations that analyze and critique systems of power – critical quantitative inquiries – have grown in prominence in social science research (Wells & Stage, 2015). In addition, this study accounted for potential contextual differences between the experiences of fraternity men. Examining participants within their contexts is a fundamental aspect of critical quantitative research (Stage & Wells, 2014). This study challenged past models and assumptions that have viewed fraternity members as a monolithic population, and offered competing models that describe the experiences of fraternity men and chapters that may not conform to traditional masculine norms or engage in problematic behaviors. HLM analyses provide an effective analysis strategy for this critical quantitative inquiry.

Positionality

Quantitative researchers often forgo efforts to consider their biases and standings that influence their methodological decisions and research practices, but this self-reflection must be a priority of critical quantitative inquiry (Agger, 1991; Rios-Aguilar, 2014). I identify as a White, cisgender man, and I am confident that the privileges my identity affords me has influenced my interest in quantitative methods. For example, within the gendered frameworks of my

undergraduate education (Acker, 1990), I was encouraged to pursue coursework in science, technology, engineering, and math even though I had a genuine interest in social sciences. As a result, much of my coursework centered on statistical analyses. Those experiences allowed me to gain confidence with quantitative methods early on in my postsecondary education.

In addition, it is important for me to acknowledge my extensive experience and involvement with college fraternities. Not only did I join and was active in a fraternity during my undergraduate experience[1], but I worked for my fraternity immediately after I graduated for a three-year period, served as a high-level national fraternity volunteer, worked as an on-campus fraternity and sorority life administrator over an 8 year period at two different research universities in the Northeast, and I currently serve on a regional board that supports the learning and development of undergraduate fraternity and sorority leaders. Being a fraternity member is still a tangible aspect of my identity, and I recognize that my continued commitment to the advancement of fraternities and sororities is an outlier, even for former undergraduate members of these organizations. I have no doubt it influences my perspective and lens as it relates to this study.

My fraternity membership has informed this study in at least two ways. First, I have anecdotally observed differences in the gender performativity and behaviors among fraternity men from different chapters from the same national fraternity, and among different chapters at the same institution. Therefore, I am confident that chapter-level clustering of these outcomes exists, and merits an investigation utilizing HLM. Second, I am confident that my involvement and past advocacy for fraternities has provided me with access to the target population of this

[1]While I was a member of a college social fraternity, I was not, and have never been, affiliated with the fraternity of interest for this study.

study. I am viewed as a proponent of these organizations, and my research efforts are not viewed as a threat to their existence. Other critical scholars may not have been afforded the opportunity to study a single national fraternity in the same manner.

While I have extensive experience with fraternities, and being a fraternity member is an aspect of my identity, I have come to question a number of aspects related to these organizations. Notably for this study, I am becoming more critical of their single-sex nature. This perspective has been influenced by my work as an on-campus professional with several fraternities and undergraduate societies that were open to individuals regardless of their gender identities, and my doctoral coursework that has allowed me to analyze the gendered nature of fraternity membership. I am currently unsure if fraternities should be able to restrict their memberships to individuals that identify as men, or if they should be open to any individual regardless of their gender identity. The tensions between my fraternity membership and my questioning of the gendered structures of these organizations undoubtedly influenced my methodologic decisions, and my interpretations and conclusions from the study findings.

Data Collection

Data for this study was collected by Dyad from January 29, 2017 through March 10, 2017 using an internet-based survey hosted by SurveyGizmo that was sent to all 4,051 Philadelphian undergraduate members with active email addresses on record with the international fraternity office. Upon closing the survey, 3,046 members representing all 77 chapters participated in the study, which constituted a response rate of 75.1%. This response rate is significantly higher than that of most internet-based surveys that range from a low 20% to approximately 45% (Nulty, 2008). A priori power analyses were not conducted for the study, but post hoc power analyses for each outcome is reviewed in Chapter IV.

Items for this survey come from several preexisting scales that have been found to have strong psychometric properties, and demographic questions routinely utilized by Dyad in their surveys sent to members of national fraternities. The psychometric properties of the preexisting scales is reviewed in detail later in this chapter. In total, the final survey included 276 items, with 54 items added to the standard questions asked by Dyad in order to response the research questions for this study. With the exception of the demographic items, the remaining items are mandatory responses for participants.

Table 3.1.

Pilot Study Descriptive Statistics

Scale	N	M	SD	∝
CMNI-46				
Primacy of work	66	6.41	2.11	.78
Risk-taking	66	7.24	2.32	.75
Emotional control	67	7.88	3.47	.88
Self-reliance	67	5.66	2.53	.83
Winning	66	10.92	3.05	.85
Violence	65	10.15	3.17	.81
Playboy	66	5.48	2.55	.77
Power over women	68	3.84	2.22	.78
Heterosexual presentation/Disdain for homosexual	66	8.00	4.12	.87
Hazing rationale				
Loyalty	61	12.26	3.01	.66
Instrumental education	60	8.67	2.44	.70
Solidarity	61	6.33	2.15	.75
Social dominance	61	13.61	3.30	.79
AUDIT-C	58	6.38	2.17	-
Investiture Socialization	63	23.49	4.84	.58

A pilot study was conducted in November 2016 through January 2017 to examine the reliability of instrument for this study. Utilizing an internet-based survey, 667 undergraduate fraternity members at two higher education institutions were invited to participate in this pilot study. The first institution chosen for this project was a large public research university located

in the Southwestern United States. The second institution was a small private business-focused college located in the Northeast United States. Neither institution has a chapter of Philadelphian Fraternity represented on their campuses. In total, 69 undergraduate fraternity men participated in this pilot study, and the response rate was 10.34%. The descriptive statistics for the instrument from the pilot study are provided in Table 3.1.

Sampling Strategy and Administration

Sampling for this study occurred through a census of the full Philadelphian undergraduate membership. In January 2017, a Philadelphian staff member provided Dyad with a database that included the contact information for all undergraduate fraternity men, their fraternity chapter affiliations, and their email addresses. Dyad sent an initial participant invitation via email to all potential participant on January 29, 2017. Invitation reminder emails were sent to individuals with unfinished emails every Sunday for three weeks following the initial correspondence. Sundays were selected by the Dyad staff for these reminders because anecdotally many fraternity chapters have their weekly meetings on Sunday evenings. The survey remained open to participants until March 10, 2017.

In addition to the correspondence from Dyad, the Philadelphian staff incentivized and solicited survey participation throughout the survey administration. The Philadelphian chapter accreditation program includes chapter response rate standards related to the survey, and, at minimum, chapter are expected to have achieve a response rate higher than 80%. In addition, a Philadelphian staff member and Dyad Chief Executive Officer Gentry McCreary discussed and responded to questions about the survey at the Philadelphian chapter presidents' retreat in January 2017. The undergraduate members received emails from the fraternity staff members prior to the survey launch to notify them that the invitations would be forthcoming. Also, Dyad

notified Philadelphian about chapter response rates throughout the course of the survey administration, and the staff members contacted chapter presidents of groups with low response rates to encourage their members to participate in the study.

Sample

The target population for this study were the 4,051 active undergraduate members of Philadelphian, a single North-American Interfraternity Conference (NIC) college social fraternity, during the early portion of the spring 2017 semester. As stipulated by the membership policies of the national fraternity, all of these individuals identify as men, and full-time undergraduate students at their respective institutions. In keeping with HLM cross-sectional design methods, the first unit of analysis was active undergraduate members, as defined by the membership policies of the fraternity. To respond to the research question for the study, the second unit of analysis was the undergraduate fraternity chapters of the fraternity that are operational at the time of this study. Philadelphian Fraternity had 77 chapters across the United States and Canada, with 4,051 active undergraduate members with active email addresses on January 29, 2017. The data for this study were collected through a cross-sectional, internet survey, sent via email by Dyad on January 29, 2017 to all active undergraduate members with available email addresses on file with Philadelphian Fraternity.

Along with the fact that the 77 Philadelphian undergraduate chapters were dispersed at higher education institutions across the United States and Canada (see Table 3.2 for regional locations of these chapters), the international fraternity was selected for this study because it approximately the average membership size of its 68 North-American Interfraternity Conference (NIC) peer organizations, and the organization has about the average active undergraduate chapters than other NIC member groups (NIC, n.d.). Unfortunately, more precise data on the

representativeness of Philadelphian to its peer organizations is unavailable because neither the NIC or the Fraternity Executive Association (FEA) were willing to share their internal annual membership census reports (W. Foran, NIC Vice President of Collegiate Operations, personal communication, December 14, 2016; N. Meneley, FEA Executive Director, personal communication, December 15, 2016). No other publicly available databases or documents contain this information.

In addition to its organizational demographics, Philadelphian Fraternity publicly espouses that is an organization dedicated to supporting its members to become better men. This purpose is nearly universal among college social fraternities. For example, the mission of another fraternity, Beta Theta Pi (n.d.), is, "to develop men of principle for a principled life" (Mission section, ¶ 1). Because college social fraternities aim to promote the development of masculine norms, and Philadelphian is representative of this purpose, this fraternity provided an ideal setting to explore the relationships of collective chapter masculine norms, investiture socialization, and the problematic behaviors of their members.

Table 3.2.

Regional Location of Philadelphian Undergraduate Chapters

Region	N (%)
Northeast (CT, DE, DC, ME, MD, MA, NH, NJ, NY, PA, RI, VT)	16 (20.8)
South (AL, AR, GA, FL, KY, LA, MS, NC, SC, TN, VA, WV)	15 (19.5)
Midwest (IL, IN, MI, OH, WI)	20 (26.0)
Great Plains (IA, KS, MN, MO, MT, NE, ND, OK, SD, TX)	13 (16.9)
West (AK, AZ, CA, CO, HI, ID, NV, NM, OR, UT, WA, WY)	9 (11.7)
Canada	4 (5.2)

Variables

The outcome and predictor variables within this study were created using the scoring protocols for previously developed scales and subscales (e.g., Parent & Moradi, 2009, Conformity to Masculine Norms Inventory-46). Student-level demographic variables, used as covariates, were single-items collected from internet-based survey or data provided by the Philadelphian Fraternity staff. Chapter-level demographic variables were data provided by the fraternity staff, or collected from IPEDS (2017), CUDO (2017) and Universities Canada (n.d.).

Outcomes

The outcomes of interest in this study were undergraduate fraternity men's conformity to traditional masculine norms, alcohol consumption behaviors, and endorsement of hazing rationales. As described in Chapter II, fraternity membership has been found to correlate with the adoption and perpetuation of hegemonic masculine norms (DeSantis, 2007; Kimmel, 2008; Sanday, 1990/2007; Syrett, 2009). Also, researchers have identified problematic alcohol use and hazing behaviors as outcomes associated with membership in men's social fraternities (e.g., Iwamoto, Cheng, Lee, Takamatsu, & Gordon, 2011). Each of these outcomes was measured based on students' responses to items from preexisting scales.

Traditional masculine norms. The extent to which fraternity men adopt or not adopt traditional masculine norms was measured by their responses to nine of the 11 subscales identified in Mahalik et al.'s (2003) Conformity to Masculine Norms Inventory (CMNI), as measured by Parent & Moradi's (2009) CMNI-46. The CMNI was selected over other measures of masculinities because the measure has strong psychometric properties, it is prominently used throughout the literature on gender norms and outcomes (e.g., Liu & Iwamoto, 2007), and other measures focus on psychological outcomes associated with masculine norm adoption (e.g.,

O'Neil, 1990). The masculine norms retained by Parent & Moradi are emotional control, winning, playboy, self-reliance, violence, risk-taking, primacy of work, heterosexual self-presentation (originally referred to as disdain for homosexuals), and power over women. The participants' overall conformity or disconformity to these norms was obtained through a total score calculated by averaging all 46 items.

Malik et al. (2003) utilized a mixed methods design to create and assess the psychometric properties of the CMNI. After relying on the feedback from two focus groups composed of men and women, the researchers narrowed their inventory to 12 salient masculine norms measured by 144 items. The researchers conducted a factor analysis based on the responses of 752 undergraduate and graduate student men to the 144 item measure to assess the loading of the 12 factors in the inventory. One masculine norm, physical toughness, was dropped because the related items could not be adequately grouped. Mahalik and colleagues then loaded the remaining 132 items into the 11 factors to construct subscales for each masculine norm. They retained 94 items that loaded at |.40| or higher, and did not cross-load higher than |.30| on any other factor. The internal consistency of the 11 masculine norms and the full 94 item measure were examined by the researchers, and each had acceptable or better Cronbach's alpha values (see Table 3.3). The researchers examined the retest reliability of the scale and subscales two-to-three weeks after the initial study with 40 participants. The correlation coefficients for ranged from .51 for pursuit of status, to .96 for disdain for homosexuals (see Table 3.3).

The CMNI-46 is more parsimonious than the full 94-item CMNI, and scholars have found that the reduced version is reliable and valid (Iwamoto et al., 2014; Levant & Wimer, 2013; Parent & Moradi, 2009; S. Wells et al., 2014). The masculine norms of dominance and pursuit of status were excluded from the final abbreviated measure because these factors had

lower loadings that the other norms, and the Cronbach's alpha values for these subscales were each under .70 (Parent & Moradi, 2009). Parent and Moradi (2009) found that the nine remaining masculine norm subscales had good internal consistency (see Table 3.3), and had strong correlations to the full version subscales. In addition, the nine masculine norm scales were found to have viable construct validities through confirmatory factor analysis.

Table 3.3.

Internal and Retest Reliabilities for the Conformity to Masculine Norms Inventory

Outcomes	Full CMNI ∝	Full CMNI r^1	CMNI-46 ∝	CMNI-46 r^2
Winning	.88	.87	.83	.95
Emotion Control	.91	.88	.86	.96
Primacy of Work	.76	.67	.77	.93
Risk-Taking	.82	.76	.84	.95
Violence	.84	.74	.86	.97
Heterosexual Self-Presentation/Disdain for Homosexuals	.90	.96	.91	.96
Playboy	.88	.91	.84	.89
Self-Reliance	.85	.80	.84	.98
Power over Women	.87	.75	.78	.90
Pursuit of Status	.72	.51		
Dominance	.73	.75		
CMNI Total	.94	.95	.88	.96

[1]Test-rest reliability
[2]Correlations between full CMNI and CMNI-46 scales

The use of the CMNI-46 is consistent with prior research that examined the relationships between traditional masculine norms and problematic behaviors (Iwamoto et al., 2014), and allowed for comparisons to the past scholarship on this topic. Participants rated the extent that they agree or disagree with each masculine norm statement after considering their actions and beliefs on a four-point Likert scale from "strongly disagree" (0) to "strongly agree" (3). The score for each traditional masculine norm subscale was tabulated by calculating the sum of the survey items corresponding to that norm. For example, the four-item power over women

subscale scores can range from 0 to 12. A sample of the CMNI-46 items can be found in Appendix A.

Alcohol use. The alcohol consumption behaviors of the respondents was measured using the three-item Alcohol Use Disorders Test consumption questionnaire (AUDIT-C) (Bush et al., 1998). These three items address the topics of frequency of alcohol consumption, typical frequency of drinks per occurrence, and frequency of binge drinking. The full 10-item AUDIT was developed by Saunders, Aasland, Babor, De La Fuente, and Grant (1993). Like the CMNI, the AUDIT is widely used by researchers because it has been found to be a reliable and consistent measure of problematic alcohol use (Babor, Higgins-Biddle, Saunders, & Monteiro, 2001). For example, Saunders and colleagues (1993) found that the Cronbach's alpha for the scale was .93. Similarly, the AUDIT-C has been found to be an effective measure of alcohol use disorders (e.g., Dawson, Grant, Stinson, & Zhou, 2005). In fact, Bush et al. (1998) identified that the AUDIT-C had a statistically significant stronger area under receiver operating characteristic curves (AUROCs) score for measuring heavy drinking than the full AUDIT. These findings have been replicated with college student samples (DeMartini & Carey, 2012).

Relevant to the present study, scholars have used the AUDIT in their research on fraternity men and alcohol use (e.g., Brown-Rice et al., 2015). Also, the AUDIT-C has been found to correlate with the breath alcohol concentrations of college students (Martin, Chaney, & Cremeens-Matthews, 2015), and the alcohol-related norms and behaviors of this population (Wahesh & Lewis, 2015). AUDIT-C items are on five-point scales that vary for each question. The composite AUDIT-C scores for participants can range from 0 to 12, with scores of 4 and higher indicative of problematic alcohol use (Dawson et al., 2005). The AUDIT-C items are:

1. How often did you have a drink containing alcohol in the past year?

never (0 points); monthly or less (1 point); 2 to 4 times a month (2 points); 2 to 3 times a week (3 points); 4 or more times a week (4 points).

2. How many drinks did you have on a typical day when you were drinking in the past year?

   0 drinks (0 points); 1 to 2 drinks (0 points); 3 to 4 drinks (1 point); 5 to 6 drinks (2 points); 7 to 9 drinks (3 points); or 10 or more drinks (4 points).

3. How often did you have 6 or more drinks on one occasion in the past year?

   never (0 points); less than monthly (1 point); monthly (2 points); weekly (3 points); or daily or almost daily (4 points).

Hazing rationale. The students' endorsement of hazing rationales was assessed through the 18-item Hazing Rationale Scale (HRS) developed by McCreary & Schutts (n.d.). There are no widely utilized measures of hazing behaviors or attitude, due in part to the challenges of operationalizing the term (Biddix et al., 2014). The HRS was developed as a means to measure the motivations of students to engage in hazing as an extension of the qualitative research of Cimino (2011). Because two of the researchers who developed the HRS are staff members of Dyad, the HRS is incorporated in the standard survey items for their projects with national fraternities like Philadelphian. This allowed for parsimony in item selection. The scale contains four subscales: solidarity and unity-based hazing rationale (SUHR), loyalty-based hazing rationale (LHR), instrumental education-based hazing rationale (IEHR), and social dominance-based hazing rationale (SDHR). Participants rated their agreement or disagreement with the scale items related to their support of hazing-related philosophies specific to incorporating newcomers into their fraternity chapters utilizing a five-point Likert scale from "strongly disagree" (1) to

"strongly agree" (5). Scores for each subscale are calculated based on the mean value of the items corresponding to that hazing rationale.

Utilizing a sample of 2,833 undergraduate fraternity men from a single national fraternity, McCreary and Schutts (n.d.) examined the reliability of the HRS, and found high internal consistency for the full scale ($\alpha = .88$), LHR ($\alpha = .81$), IEHE ($\alpha = .94$), SUHR ($\alpha = .90$) and SDHR ($\alpha = .88$). In addition, exploratory factor analysis (EFA) of the four subscales did not reveal any cross-correlations, and justified the retention of all of the factors. The researchers also examined HRS and the subscales for construct and divergent validity. Confirmatory factor analysis with 11 other measures identified that the four subscales model from the EFA was a statistically significantly better fit than the null hypothesis model (McCreary & Schutts, n.d.). Discriminant validity analysis through average variance extracted statistics provided additional evidence of the uniqueness of each factor, though the researchers found a statistically significant correlation between IEHR and SUHR, $r = .74, p < .001$.

In addition to McCreary and Schutts' (n.d.) efforts to develop and validate the HRS, the measure was included in the pilot study internet-based survey for this study (see Table 3.1). All of the subscales had Cronbach's alpha values greater than .66. Because McCreary and Schutts' found the HRS to be a valid and reliable measure with a population of fraternity men from a single national fraternity and no other reputable scale exists to measure students' attitudes toward hazing, the HRS is the optimal scale to better understand the relationships of fraternity chapter masculine norm climates and members' motivations to engage in hazing.

Individual-level Predictors

Demographics variables. The survey asked the participants to report their race and ethnicity based on their responses to the question, "What is your race/ethnicity?" Participants

had the option to identify their race or ethnicities using the racial and ethnic categories defined by the United States Office of Management and Budget (OMB) (1997) (e.g., “Asian”), or select “Other” and provide a written response about their racial and ethnic identities. Responses by participants identifying as other, but who could be classified by an OMB category, were recoded to reflect the corresponding OMB category (e.g., “Indian” was recoded as Asian). Because disaggregation of data is vital for critical quantitative inquires (Cheslock & Rios-Aguilar, 2011; Rios-Aguilar, 2014), particularly data relevant to structures of power and oppression like marginalized racial and ethnic identities, an effort was made to retain as many racial and ethnic identity groups as possible in the data set. Respondents that identified as Black/African-American and Hispanic/Latino were retained as individual groups. The racial and ethnicity groups of Asian, and Native Hawaiian and Other Pacific Islander were combined because of the regional proximity of these ancestral origins of these groups, because only 17 respondents identified as Native Hawaiian and Other Pacific Islander. American Indian/Alaska Native (16 respondents), multiracial or multiethnic (38 respondents), and other identifying students (10) were also combined into one category. Prior research has found that the alcohol use of college men varies based on their racial and ethnic identities (e.g., Iwamoto, Grivel, Cheng, & Zamboanga, 2016; Sweeney, 2014). While researchers have examined difference in hazing attitudes between undergraduate members of historically Black fraternities and predominately White fraternities (e.g., Parks, Jones, Ray, et al., 2015) , no research has examined if students’ racial or ethnic identities relates to their hazing motivations. This categorical variable was delineated by separating each race or ethnicity into dummy variables that indicate a participants’ self-reported race or ethnicity (0 = no, 1 = yes).

The class year of students has also been found to relate to the alcohol use of fraternity men, as members in the first year or two of college have been found to drink more than their peers (e.g., Capone, Wood, Borsari, & Laird, 2007). There is no literature on the effects of a student's class year on their level of agreement for hazing rationales. Participants were asked to report their class year based on their responses to the question, "What is your classification in school?" Student could chose to identify as a "freshman", "sophomore", "junior" or "senior".. This categorical variable was delineated by separating each class year into dummy variables that indicate a participants' academic standing (0 = no, 1 = yes).

Fraternity-specific variables. Several studies have identified that living in fraternity houses is associated with higher levels of binge drinking (T. F. Nelson et al., 2009; Wechsler et al., 1996). Participants' residence status was recorded based on their responses to the question, "Do you presently live in the chapter house/facility?" Participants had the ability to select, "yes", "no" or "not applicable." Fraternity house residency was recorded as a dichotomous variable by combining the latter two response options (0 = does not reside in a fraternity house, 1 = resides in a fraternity house).

Group-mean centered individual masculine norms. Group-mean centering allows researchers to examine how group contexts affect individual outcomes, while allowing for an examination of within group differences between group members for a particular independent variable (Bickel, 2007; Enders & Tofighi, 2007; Paccagnella, 2006; Raudenbush & Bryk, 2002). In this way, researchers can examine the individual-level component and group-level component of the variation for a predictor in an HLM model. Within this study, individual CMNI-46 subscale scores were compared to the mean of each of their chapters, the latter serving as a proxy for the chapter masculine norm climate. The differences between these values served as a

measurement of the degree to which individuals conform or fail to conform to their groups' masculine norms. Understanding an individual's variation from their chapter's masculine norms is critical to this study, because fraternity men are socialized to masculine norms well before they enter college (DeSantis, 2007), and other contextual factors influence their gender performances. In other words, individual's conformity or disconformity to masculine norms cannot be solely attributed to their socialization into their fraternity chapter.

To calculate group-centered masculine norms for each participant, the aggregated mean value for a particular traditional norm as defined by Parent and Moradi's (2009) CMNI-46 for all participating members of his fraternity chapter were subtracted from an individual's score for that norm ($X_{ij} - \bar{X}_{.j}$). For example, if a participant's playboy masculine norm score was 7.00, and his chapters' mean score is 5.00, the within group difference value is +2.00. The value of +2.00 would be the participant's individual-level conformity to traditional masculine norms within his fraternity chapter. Variables were created for the nine CMNI-46 subscales (e.g., winning).

Chapter-level Predictors

Group-mean centered chapter masculine norms. In order to analyze the effects of chapter-level masculine norms on the identified outcomes, group-mean centered chapter-level masculine norms must be calculated based on the masculine scores of the members of each chapter. The group-mean centered chapter masculine norms were constructed by calculating the mean score for each CMNI-46 masculine norm. These variables allowed for between chapter comparisons of collective chapter conformity to traditional masculine norms (i.e., the chapter masculine norm climates).

Chapter and institutional demographic variables. In addition to the aggregated group-mean centered chapter masculine norms, this study included five demographic chapter and institutional variables provided by the Philadelphian Fraternity staff or collected from IPEDS (2017), CUDO (2017) and Universities Canada (n.d.). These variables are chapter housing status, chapter membership size, institutional sector, institutional size, and country of institution. Chapter housing status and chapter membership size was collected from Philadelphian Fraternity. Chapter housing status – whether chapters possess fraternity houses or not was recorded as a dichotomous variable (0 = unhoused, 1 = housed). Any chapter that maintained an on-campus residence hall space was coded as unhoused because this space is administered by a university. Chapter membership size was the total number of undergraduate members in each chapter as reported by Philadelphian to Dyad at the start of the study. Institutional sector and institutional size was collected from IPEDS (2017) for higher educations located in the United States, and from CUDO (2017) and Universities Canada (n.d.) for the four campuses in Canada. Institutional sector was recorded as a dichotomous variable (0 = public institution, 1 = private institution). Institutional size was created from the estimated full-time equivalent undergraduate enrollment at each institution for the 2014 – 2015 academic year. These variables were used to explore if contextual factors explain any of the between chapter variance of members' problematic behaviors or attitudes.

Cross-level Moderators

Within HLM, researchers can examine if group-level variables moderate the relationship between an individual-level variable and an outcome (Gavin & Hofmann, 2002; Hofmann & Gavin, 1998; Hofmann, Morgeson, & Gerras, 2003). In other words, HLM can used to investigate cross-level relationships between variables. For example, Hofmann, Morgeson and

Gerras (2003) found that the safety climate of an organization moderated the relationship between leadership-member exchange (LMX) and safety citizenship roles. In organizations with strong safety climates there were positive, statistically significant relationships between an individual's safety citizenship role, while no relationship existed between these variables in organizations with weak safety climates. The present study examined if the investiture socialization climate of a chapter moderates the relationship(s) between the extent to which individuals adopt specific masculine norms and their alcohol use and degree of endorsement for hazing if the relationship(s) varied significantly across the population of chapters.

Investiture socialization climate. The degree to which a fraternity chapter affirm or disaffirm the identities of chapter newcomers was measured with Ashforth and Saks' (1996) five-item Measure of Investiture, as adapted by Ashforth, Sluss, and Saks (2007). Ashforth and Saks' (1996) measure was used instead of the scale created by Jones (1986) because it more closely relates to the theoretical conceptualization of investiture proposed by Van Maanen & Schein (1979). Ashforth and Saks (1996) argued that Jones' Measure of Investiture assessed the extent to which an organization provided social support to newcomers, but not the degree to which an organization affirms or disaffirms the identities of newcomers. The adapted measure developed by Ashforth, Sluss and Saks (2007) was found to have good internal consistency, $\propto$=.79, while the earlier measure by Ashforth and Saks (1996) had questionable internal consistency, $\propto$=.66.

Ashforth, Sluss and Sak's (2007) measure was adapted for this study to codify the language with the terminology familiar to undergraduate fraternity members. For example, the original item, ''My organization accepts newcomers for who they are,'' was amended to "My fraternity chapter accepts new members for who they are." The scale adapted for fraternity members was found to have questionable internal consistency as result of the pilot study, $\propto$=.58.

The remaining items are, “My fraternity chapter does not try to change the values and beliefs of new members,” “The following statement describes the attitude of my chapter toward new members: ‘We like you as you are; don't change’,” “In my fraternity chapter, you must ‘pay your dues’ before you are fully accepted” (reverse scored), and “My fraternity chapter tries to transform new members into a different kind of person” (reverse scored). The accompanying Likert scale ranged from “strongly disagree” (1) to “strongly agree” (7).

While investiture socialization data was collected as individuals’ perceptions about the tactics utilized by their fraternity chapters, it is characterized as the chapter-level variable of investiture socialization climate. This characterization is made because fraternity members are exposed to similar newcomer socialization practices within their fraternity chapters. Therefore, each fraternity chapter should have a distinct investiture socialization climate. This chapter-level variable was aggregated from the individual investiture socialization scores of the members of each chapter. Higher aggregated investiture socialization climate scores represent a chapter with socialization environment affirms newcomers’ identities, and lower scores represent a climate that favors divestiture socialization. In addition to the climate variable, a group mean centered individual-level investiture socialization variable was included in the model to account for any individual differences that may cause error in the models if not accounted for in HLM (Raudenbush & Bryk, 2002).

Data Analysis

Data analysis began after the researcher receives the data set from Dyad on April 10, 2017. Upon receiving the data set, the data was cleaned by deleting the variables provided by Dyad that are not relevant to the study. Though the data set contained 3,046 cases, 251 cases were deleted because the participants did not respond to the outcome items, and their responses

should not be imputed. Another 37 cases were removed from the data set because the participants provided responses to the write-in race or ethnicity item that indicated that they did not seriously answer the survey (e.g., Pokémon), and 29 cases were deleted because they skipped the demographic items. The data was analyzed for straight-line responders, and 21 cases were removed because the participants provided straight-line responses within each scale prior to any recoding for reverse-scored items. All six cases from one chapter were deleted from the sample because only three participants from this group provided complete responses to the survey, and the inclusion of these data would below acceptable standards for group size in multilevel modeling (Maas & Hox, 2005). Finally, another 24 cases were removed because the respondents reported never drinking for the first AUDIT-C item, but then inconsistently indicated that they consumed more than zero drinks during a typical drinking day or reported binge drinking behaviors. After removing these cases from the sample there were no missing data, because Dyad relied on mandatory responses to collect the data. All missing data were excluded in morality of participants related to the study outcomes. The final number of cases for the study was 2,678, providing an effective response rate of 66.1% from the population of Philadelphian undergraduate members with active email addresses who received the survey.

After excluding the aforementioned data, responses to reverse-scored items of the CMNI-46 and investiture socialization measure were recoded to abide by the scoring procedures for both measures. Following this recoding effort, higher scores on the CMNI-46 reflected a participant's conformity to masculine norms. Likewise, higher scores on the investiture socialization measure indicated that a participant reported his fraternity chapter affirmed the values and beliefs of newcomers.

Upon recoding the reverse-scored items, the scale variables for the study were created as described earlier in the chapter. The fraternity traditional masculine norm climates and fraternity chapter investiture socialization climate variables were created by aggregating the scores for each variable based on the chapter identification number assigned in the individual-level data set. After calculating these climate variables, the group-mean centered individual-level variables were calculated by subtracting the climate variable score from a participant's score for each CMNI-46 subscale and the investiture socialization measure.

After calculating all of the individual-level variables, the climate variables were exported to a chapter-level data set that included the chapter and institutional data collected from Philadelphian and the data collected from IPEDS (2017), CUDO (2017) and Universities Canada (n.d.). Both data sets were sorted by a chapter identification number variables that allowed for matching in the HLM7 software.

Descriptive Statistics

After finalizing the individual-level and chapter-level data sets, initial analyses examined the descriptive statistics and internal reliabilities of the variables to gain a better understanding of the data. The examination began with a review of the demographics of the participants based on their responses to race and ethnicity, class year, and fraternity house residency status survey items (see Table 3.4). Examinations descriptive analyses and self-reflection on research practices are important aspects of a critical quantitative inquiry (Rios-Aguilar, 2014). Doing so exposes the constraints of the data and the influence of researchers on their analyses, and sheds light on underrepresented respondents that are often marginalized in research.

Analysis of the racial and ethnicity identity responses found that 78.6% of the respondents identified as White (see Table 3.4). Respondents that identified as Asian, Pacific

Islander and Native Hawaiian students composed the next largest group at 9.1%, followed by Hispanic, Latino or Spanish-origin identifying students with 6.9%, then Black/American-identifying respondents at 3.0%, and the remaining 2.4% identified as Multiracial, multiethnic, Native American or other. Of the 48 (1.8%) respondents who provided write-in responses, 14 (0.5%) identified as biracial, mixed, two or more races or ethnicities, multiracial or "multiple", 11 (0.4%) identified as "other" without providing any specificity, 10 (0.4%) identified as Asian/White, White/Asian or White/Arabic, five (0.2%) identified as Black/White or White/Black, five (0.2%) identified as Latino/White, White/Latino or White/Hispanic, two (0.1%) identified as Asian/Hispanic/White or Latino/White/Asian, one identified as White/African American/Latino, and one identified as Hispanic/American. It is possible that other respondents chose to select a single OMB (1997) rather providing a more detailed written response about the racial or ethnic identity, and these responses may not fully reflect the diversity of the sample. However, because of the larger category sizes needed for HLM, it is not practical to disaggregate the larger racial and ethnic identity categories for these analyses.

A review of the frequencies of the reported class years and the fraternity house residence status of respondents occurred after the examination of the descriptive statistics for their reported racial and ethnic identities (see Table 3.4). A plurality of the respondents identified as sophomores (30.1%), though juniors (28.0%), seniors (20.9%) and freshmen (20.9%) were all well-represented within the sample. Just over two-thirds (67.1%) of the respondents indicated that they did not live in a fraternity house, and the remaining 32.9% reported that they resided in a fraternity house. All of these variables were retained for HLM analyses.

Table 3.4.

Descriptive Statistics for Student-level and Organizational-level Categorical Variables

Variable	Operational Definition	N (% of students)	N (% of organizations)
Class year			
Freshmen	1 = Freshmen, 0 = All others	561 (20.9)	-
Sophomore	1 = Sophomore, 0 = All others	807 (30.1)	-
Junior	1 = Junior (intercept), 0 = All others	751 (28.0)	-
Senior	1 = Senior, 0 = All others	559 (20.9)	-
Race or ethnicity			
Asian, Native Hawaiian or Other Pacific Islander	1 = Asian, Native Hawaiian or Other Pacific Islander, 0 = All others	246 (9.2)	-
Black/African-American	1 = Black/African-American, 0 = All others	80 (3.0)	-
Hispanic/Latino	1 = Hispanic/Latino, 0 = All others	183 (6.8)	-
Multiracial, multiethnic, Native American or other identifying	1 = Multiracial, multiethnic, Native American or other unclassified racial or ethnic identity, 0 = All others	64 (2.4)	-
White	1 = White/Caucasian (intercept), 0 = All others	2105 (78.6)	-
Fraternity house residency status			
Fraternity house residents	1 = Fraternity house resident	882 (32.9)	-
Live outside fraternity house	0 = Lives outside of fraternity house	1796 (67.1)	-
Sector			
Public institutions	0 = Public institution	-	54 (71.1)
Private institutions	1 = Private institution	-	22 (28.9)
Country			
United States	0 = Institution in United States	-	72 (94.7)
Canada	1 = Institution in Canada	-	4 (5.3)
Chapter housing status			
Chapters with fraternity houses	1 = Chapter with fraternity house	-	54 (71.1)
Chapters without fraternity houses	0 = Chapter without fraternity house	-	22 (28.9)

Table 3.5.

Operational Definitions and Descriptive Statistics for Student-level Scale Variables (n=2,678)

Variable	Operational Definition	α	Mean (S.D.)	Min	Max
AUDIT-C	Higher score indicates higher alcohol consumption behaviors	0.85	5.53 (2.93)	0.00	12.00
Social dominance hazing rationale	High score indicates increased endorsement of social dominance hazing	0.89	2.14 (0.85)	1.00	5.00
Solidarity hazing rationale	High score indicates increased endorsement of solidarity hazing	0.88	4.09 (0.65)	1.00	5.00
Loyalty hazing rationale	High score indicates increased endorsement of loyalty hazing	0.82	3.42 (0..66)	1.00	5.00
Instrumental education hazing rationale	High score indicates increased endorsement of instrumental education hazing	0.93	4.15 (0.60)	1.00	5.00
Primacy of work	Higher score indicates higher conformity to the primacy of work norm	0.66	6.46 (1.94)	0.00	12.00
Heterosexual presentation	Higher score indicates higher conformity to the heterosexual presentation norm	0.83	7.71 (3.43)	0.00	18.00
Power over women	Higher score indicates higher conformity to the power over women norm	0.83	3.45 (2.22)	0.00	12.00
Playboy	Higher score indicates higher conformity to the playboy norm	0.71	5.02 (2.23)	0.00	12.00
Violence	Higher score indicates higher conformity to the violence norm	0.79	9.48 (3.05)	0.00	18.00
Self-reliance	Higher score indicates higher conformity to the self-reliance norm	0.78	5.83 (2.38)	0.00	15.00
Emotional control	Higher score indicates higher conformity to the emotional control norm	0.84	8.26 (3.14)	0.00	18.00
Risk-taking	Higher score indicates higher conformity to the risk-taking norm	0.73	7.34 (2.24)	0.00	15.00
Winning	Higher score indicates higher conformity to the winning norm	0.80	9.93 (3.00)	0.00	18.00

Table 3.6.

Operational Definitions and Descriptive Statistics for Chapter-level Scale and Continuous Variables (n=76)

Variable	Operational Definition	Mean (S.D.)	Min	Max
Primacy of work climate	Higher score indicates a chapter climate with a higher mean for the primacy of work norm	6.42 (0.51)	4.63	7.55
Heterosexual presentation climate	Higher score indicates a chapter climate with a higher mean for the conformity to the heterosexual presentation norm	7.55 (1.18)	4.40	9.95
Power over women climate	Higher score indicates a chapter climate with a higher mean for the conformity to the power over women norm	3.40 (0.75)	1.70	5.15
Playboy climate	Higher score indicates a chapter climate with a higher mean for the conformity to the playboy norm	5.06 (0.76)	3.27	7.40
Violence climate	Higher score indicates a chapter climate with a higher mean for the conformity to the violence norm	9.56 (0.91)	6.97	11.54
Self-reliance climate	Higher score indicates a chapter climate with a higher mean for the conformity to the self-reliance norm	5.84 (0.61)	4.53	7.61
Emotional control climate	Higher score indicates a chapter climate with a higher mean for the conformity to the emotional control norm	8.29 (0.81)	5.33	10.30
Risk-taking climate	Higher score indicates a chapter climate with a higher mean for the conformity to the risk-taking norm	7.36 (0.65)	5.14	9.30
Winning climate	Higher score indicates a chapter climate with a higher mean for the conformity to the winning norm	9.80 (1.05)	7.13	12.80
Chapter membership size	The number of individual members in a chapter	52.59 (28.98)	12.00	158.00
Institutional undergraduate enrollment	The number of undergraduate students at an institution	19480.93 (13457.23)	1049.00	63720.00

Moving beyond the individual-level predictors, it is also important to review the descriptive statistics for the chapter-level variables (see Table 3.4). Of the 76 fraternity chapters in the study, 54 (71.1%) are located at public higher education institutions in the United States or Canada, while the remaining 28.9% are located at private colleges or universities. All, but the 4 (5.3%) Canadian chapters, are affiliated with higher education institutions in the United States. While a majority of respondents reported that they did not live in a fraternity house, Philadelphian reported that 54 (71.1%) chapters maintained a fraternity houses. The average chapter membership size in the study was 52.59 members ($S.D. = 28.98$), though chapter memberships ranged from 12 to 158 men. Like chapter membership sizes, the full-time undergraduate populations at the chapter's affiliated higher education institution ranged from 1,049 students to as large as 63,720 students ($M = 19480.93, S.D. = 28.98$).

The descriptive statistical analysis for students' alcohol consumption behaviors and endorsement of hazing rationales is addressed in depth in Chapter IV in response to the first research question. However, it is worth noting that the AUDIT-C, and HRS subscales were found to have good or excellent internal reliability, as all had Cronbach's alpha values above .80 (see Table 3.5). Thus, these variables had adequate internal consistency to be used as outcomes for the study.

Like the alcohol consumption behaviors and hazing rationale endorsement subscales, the CMNI-46 subscales had adequate internal consistency to be included in this study (see Table 3.5). The CMNI-46 subscales of heterosexual presentation, power over women, emotional control and winning were found to have Cronbach's alpha values at or exceeding .80. While the other masculine norm predictors had Cronbach's alpha values below .80, only primacy of work had questionable internal consistency below .70 ($\alpha = .66$). The value of work may be less stable

among the sample of fraternity men than other traditional masculine norms. However, all nine masculine norms had adequate internal consistency to be used as outcomes and predictors for the study. In addition to the internal reliabilities of the masculine norm subscales, descriptive statistics for individuals' conformity to masculine norms are presented Table 3.5 and for chapter masculine norm climates in Table 3.6.

While the pilot study found a poor Cronbach's alpha for the Measure of Investiture of .58, the internal consistency of this scale in the present study improved to .66 (see Table 3.7). The internal consistency of this variable warranted its inclusion in subsequent analyses. In addition to the internal reliability of the adapted Measure of Investiture, the descriptive statistics for this variable are presented Table 3.7 and for chapter investiture socialization climate in Table 3.8. It is important to note that 30 respondents did not complete the items for the Measure of Investiture. Because these cases represented just 1.1% of the sample, these cases were deleted and new individual-level and chapter-level data sets were constructed with 2,648 cases from 76 chapters in the event investiture socialization climate would be included in the models as a cross-level moderator (see Tables 3.7, 3.8, and 3.9). T-tests and chi-square analyses were conducted to compare the reduced data sets to the full data sets that included all 2,678 cases, and none of the variables in the new data sets were statistically significantly different.

Table 3.7.
Operational Definitions and Descriptive Statistics for Student-level Scale Variables with Investiture Socialization (n=2,648)

Variable	Operational Definition	α	Mean (S.D.)	Min	Max
AUDIT-C	Higher score indicates higher alcohol consumption behaviors	0.85	5.53 (2.94)	0.00	12.00
Social dominance hazing rationale	High score indicates increased endorsement of social dominance hazing	0.89	2.14 (0.85)	1.00	5.00
Solidarity hazing rationale	High score indicates increased endorsement of solidarity hazing	0.88	4.09 (0.65)	1.00	5.00
Loyalty hazing rationale	High score indicates increased endorsement of loyalty hazing	0.82	3.42 (0.66)	1.00	5.00
Instrumental education hazing rationale	High score indicates increased endorsement of instrumental education hazing	0.93	4.15 (0.59)	1.00	5.00
Primacy of work	Higher score indicates higher conformity to the primacy of work norm	0.66	6.46 (1.94)	0.00	12.00
Heterosexual presentation	Higher score indicates higher conformity to the heterosexual presentation norm	0.84	7.72 (3.43)	0.00	18.00
Power over women	Higher score indicates higher conformity to the power over women norm	0.83	3.46 (2.22)	0.00	12.00
Playboy	Higher score indicates higher conformity to the playboy norm	0.72	5.02 (2.24)	0.00	12.00
Violence	Higher score indicates higher conformity to the violence norm	0.79	9.48 (3.05)	0.00	18.00
Self-reliance	Higher score indicates higher conformity to the self-reliance norm	0.78	5.82 (2.38)	0.00	15.00
Emotional control	Higher score indicates higher conformity to the emotional control norm	0.85	8.26 (3.15)	0.00	18.00
Risk-taking	Higher score indicates higher conformity to the risk-taking norm	0.73	7.34 (2.24)	0.00	15.00
Winning	Higher score indicates higher conformity to the winning norm	0.80	9.93 (3.01)	0.00	18.00
Investiture socialization	Higher score indicates support for socialization tactics that affirm a newcomers' identity	0.66	4.99 (0.93)	1.80	7.00

Table 3.8.

Operational Definitions and Descriptive Statistics for Chapter-level Scale and Continuous Variables with Investiture Socialization (n=76)

Variable	Operational Definition	Mean (S.D.)	Min	Max
Primacy of work climate	Higher score indicates a chapter climate with a higher mean for the primacy of work norm	6.42 (0.51)	4.63	7.55
Heterosexual presentation climate	Higher score indicates a chapter climate with a higher mean for the conformity to the heterosexual presentation norm	7.56 (1.18)	4.40	9.95
Power over women climate	Higher score indicates a chapter climate with a higher mean for the conformity to the power over women norm	3.41 (0.75)	1.70	5.15
Playboy climate	Higher score indicates a chapter climate with a higher mean for the conformity to the playboy norm	5.07 (0.76)	3.27	7.40
Violence climate	Higher score indicates a chapter climate with a higher mean for the conformity to the violence norm	9.56 (0.91)	6.97	11.54
Self-reliance climate	Higher score indicates a chapter climate with a higher mean for the conformity to the self-reliance norm	5.84 (0.62)	4.53	7.61
Emotional control climate	Higher score indicates a chapter climate with a higher mean for the conformity to the emotional control norm	8.29 (0.82)	5.33	10.30
Risk-taking climate	Higher score indicates a chapter climate with a higher mean for the conformity to the risk-taking norm	7.37 (0.65)	5.14	9.30
Winning climate	Higher score indicates a chapter climate with a higher mean for the conformity to the winning norm	9.80 (1.05)	7.13	12.80
Investiture climate	Higher score indicates a chapter climate more accepting a newcomers' beliefs and values	4.98 (0.33)	4.29	5.80
Chapter membership size	The number of individual members in a chapter	52.59 (28.98)	12.00	158.00
Institutional undergraduate enrollment	The number of undergraduate students at an institution	19480.93 (13457.23)	1049.00	63720.00

Table 3.9.

Descriptive Statistics for Student-level and Organizational-level Categorical Variables with Investiture Socialization

Variable	Operational Definition	N (% of students)	N (% of organizations)
Class year			
Freshman	1 = Freshman, 0 = All others	558 (21.1)	-
Sophomore	1 = Sophomore, 0 = All others	799 (30.2)	-
Junior	1 = Junior (intercept), 0 = All others	742 (28.0)	-
Senior	1 = Senior, 0 = All others	549 (20.7)	-
Race or ethnicity			
Asian, Native Hawaiian or Other Pacific Islander	1 = Asian, Native Hawaiian or Other Pacific Islander, 0 = All others	241 (9.1)	-
Black/African-American	1 = Black/African-American, 0 = All others	79 (3.0)	-
Hispanic/Latino	1 = Hispanic/Latino, 0 = All others	183 (6.9)	-
Multiracial, multiethnic, Native American or other identifying	1 = Multiracial, multiethnic, Native American or other unclassified racial or ethnic identity, 0 = All others	64 (2.4)	-
White	1 = White/Caucasian (intercept), 0 = All others	2081 (78.6)	-
Fraternity house residency status			
Fraternity house residents	1 = Fraternity house resident	873 (33.0)	-
Live outside fraternity house	0 = Lives outside of fraternity house	1775 (67.0)	-
Sector			
Public institutions	0 = Public institution	-	54 (71.1)
Private institutions	1 = Private institution	-	22 (28.9)
Country			
United States	0 = Institution in United States	-	72 (94.7)
Canada	1 = Institution in Canada	-	4 (5.3)
Chapter housing status			
Chapters with fraternity houses	1 = Chapter with fraternity house	-	54 (71.1)
Chapters without fraternity houses	0 = Chapter without fraternity house	-	22 (28.9)

Exploratory Data Analysis

A number of exploratory analyses were performed to ensure that the continuous variables met the assumptions of ordinary least squares (OLS) and HLM regressions. The findings suggest that these assumptions were met for the models of continuous variables and alcohol consumption behaviors, LHR, and, while the assumption of normality may have been violated for some OLS models between some of the predictors and IEHR, SUHR, and SDHR (e.g., the relationship between institutional size and SDHR). However, multilevel analyses with clustered data often violate OLS assumptions, and these violations may result in underestimated standard errors (Hofmann & Gavin, 1998; Raudenbush & Bryk, 2002). To mitigate these potential violations of normality, robust standards errors was used throughout the HLM analyses for all models (Raudenbush & Bryk, 2002). In addition, correlation analyses were conducted to examine the relationship among the continuous independent variables (see Tables 3.10 and 3.11).

Research Question One: Analyses of Patterns

To respond to the first research question about the patterns of alcohol consumption behaviors and endorsement of hazing rationales among fraternity men and their chapters, a serious of descriptive and correlations analyses were conducted for each of these outcomes. Patterns were explored for the relationships of each predictor in the study and the alcohol consumption behaviors and the HRS subscales.

Table 3.10.
Correlation between Individual-level Masculine Norms and Investiture Socialization

	1.	2.	3.	4.	5.	6.	7.	8.	9.
CMNI subscales									
1. Violence									
2. Risk-taking	0.222**								
3. Winning	0.255**	0.139**							
4. Emotional control	0.187**	0.075**	0.133**						
5. Self-reliance	0.141**	0.117**	0.093**	0.463**					
6. Primacy of work	-0.120**	0.057**	0.111**	-0.029	-0.059**				
7. Heterosexual presentation	0.201**	0.108**	0.279**	0.198**	0.178**	0.029			
8. Power over women	0.165**	0.252**	0.105**	0.201**	0.314**	0.087	0.480**		
9. Playboy	0.208**	0.296**	0.085**	0.155**	0.235**	<-0.001	0.118**	0.357**	
10. Investiture socialization	-0.131**	-0.123**	-0.105**	-0.128**	-0.197**	0.014	-0.248**	-0.334**	-0.229**

**p<.05, **p<.01*

Table 3.11.
Correlation between Chapter-level Outcomes and Scale Predictors

	1.	2.	3.	4.	5.	6.	7.	8.	9.
CMNI subscales									
1. Violence climate									
2. Risk-taking climate	0.429**								
3. Winning climate	0.143	0.195							
4. Emotional control climate	0.344**	0.100	-0.177						
5. Self-reliance climate	0. 477**	0.226*	-0.121	0.637**					
6. Primacy of work climate	-0.230*	0.013	0.315**	-0.224	-0.180				
7. Heterosexual presentation climate	0.406**	0.235**	0.293*	0.304**	0.282*	-0.052			
8. Power over women climate	0.386**	0.483**	0.236*	0.236**	0.304**	-0.020	0.710**		
9. Playboy climate	0.298**	0.511**	0.332**	0.004	0.078	0.136	0.198	0.498**	
10. Investiture socialization climate	-0.112	-0.274*	-0.226*	-0.078	-0.021	-0.041	-0.347**	0.426**	0.018

**p<.05, **p<.01*

Research Question Two: Variance of Members' Conformity to Masculine Norms between Fraternity Chapters

Equation 1.

$$Y_{ij} = \beta_{0j} + r_{ij}$$

$$\beta_{0j} = \gamma_{0j} + u_{0j}$$

To address the second research questions, if fraternity members' conformity to traditional masculine norm vary between chapters, unconditional models were created to examine what proportion of total variance for individual's adoption of each traditional masculine norm can be explained by between-chapter differences, and if any proportion of variance is statistically significant (see Equation 1) (Raudenbush & Bryk, 2002). This proportion of variance is known as intraclass correlation (ICC). These models did not include any predictors, and sole intent was to identify the ICC for each CMNI subscale and the total CMNI-46. While there scholars have not identified a minimum ICC value for this analsyis, the larger the ICC value, the greater amount of variance can be attributed to chapter-level differences (Kreft & de Leeuw, 1998; Raudenbush & Bryk, 2002). Also, the unconditional model allowed for the calculation of the reliability of the sample mean for any chapter to estimate the true population mean, design effect and effective sample size for each model.

Research Question Three: Variance of Members' Problematic Behaviors between Fraternity Chapters

Like the models for individuals' adoption of traditional masculine norms, unconditional models were created for the outcomes of members' alcohol use and the four endorsement of hazing rationales to examine what portion of total variance for these outcomes can be explained by between-chapter differences (see Equation 1) (Raudenbush & Bryk, 2002). These models addressed the third research question in the study. In addition to calculating the ICC values, the

reliability of the sample mean for any chapter to estimate the true population mean, design effect and effective sample size was calculated for each model.

Research Question Four: Masculine Norm Climates as Predictors of Outcomes

Equation 2.

$$Y_{ij} = \beta_{0j} + \beta_{1j}X_{1j} + \ldots + \beta_{kj}X_{kj} + r_{ij}$$

$$\beta_{0j} = \gamma_{0j} + u_{0j}$$

$$\beta_{1j} = \gamma_{10}$$

...

$$\beta_{kj} = \gamma_{k0}$$

After the within chapter and between chapter variances was examined for each of the outcomes, fourth research question, if chapter masculine norm climates predict any of the outcomes, was examined through the construction of a serious of HLM models. First, one-way ANCOVA with random effects models were constructed utilizing individual-level predictors that were not allowed to vary randomly along their slopes (Raudenbush & Bryk, 2002). These variables were entered in six blocks (see Table 3.12). The student demographic variables were entered into the model first, and each coefficient was examined for statistical significance. Dunnett test were utilized to examine the statistical significance of these relationships to account for any type-1 error inflations caused by pairwise comparisons. If the sets of race and ethnicity, or class year variables were not statistically significant, they were excluded from subsequent models. Next, the fraternity residence status was entered into the model, and examined with the same inclusion or exclusion criteria as the demographic variables. After specifying the models for the demographic variables, the individual-level group mean centered conformity to masculine norm variables were entered into the model in three blocks to examine for collinearity. These

Table 3.12.

Proposed Building of One-Way ANCOVA with Random Effects Models

Variable	Model 1	Model 2	Model 3a	Model 3b	Model 3c
Race and Ethnicity					
American Indian/Alaskan Native	X	X*	X*	X*	X*
Asian	X	X*	X*	X*	X*
Black/African American	X	X*	X*	X*	X*
Hispanic/Latino	X	X*	X*	X*	X*
Native Hawaiian/Pacific Islander	X	X*	X*	X*	X*
Class Year					
Sophomore	X	X*	X*	X*	X*
Junior	X	X*	X*	X*	X*
Senior	X	X*	X*	X*	X*
Fraternity House Residence					
House Resident		X	X**	X**	X**
CMNI-46 Block 1					
Winning			X	X	X
Violence			X	X	X
Risk-Taking			X	X	X
CMNI-46 Block 2					
Emotional Control				X	X
Self-Reliance				X	X
Primacy of Work				X	X
CMNI-46 Block 3					
Power over Women					X
Playboy					X
Heterosexual Presentation/Disdain for Homosexuals					X

*These variables will be retained in the models if any of the corresponding variables statistical significantly predict the outcomes

**These variables will be retained in the models if they are statistically significant predictors of the outcomes

blocks were organized based on correlations identified in prior research (Iwamoto et al., 2014; Parent & Moradi, 2009), and theoretical assertions about masculinity (Vandello & Bosson, 2013). Risk-taking, violence and winning were included in the first block because Vandello and Boson (2013) asserted that competition, taking risks and violence served as irrefutable proof of masculinity, and risk-taking and winning have been associated with alcohol use (Iwamoto et al., 2011; 2014). Emotional control, self-reliance and primacy of work, gender norms associated with independence, and these norms have all been found to alcohol use in at least one of Iwamoto and colleagues' (2011, 2014) studies. The final block of power over women, heterosexual presentation and playboy, all norms indicative of a fear of femininity and misogyny, were entered last because the associations between these norms and alcohol use have been mixed. Unlike the previous covariates, each of these variables remained in the model in order to examine the relationships among fraternity chapter masculine norm climates and the outcomes to comply the requirements to model group-mean centered variables (Raudenbush & Bryk, 2002).

Before adding the chapter-level predictors, the proportion of variance between chapters explained by the models were reexamined for each outcome (i.e., the conditional ICC values were calculated). Also, the proportion of variance within chapters, and proportion of total variance explained by each model were calculated.

Equation 3.

$$Y_{ij} = \beta_{0j} + \beta_{1j}X_{1j} + \ldots + \beta_{kj}X_{kj} + r_{ij}$$

$$\beta_{0j} = \gamma_{0j} + u_{0j}$$

$$\beta_{1j} = \gamma_{10} + u_{1j}$$

...

$$\beta_{kj} = \gamma_{k0} + u_{kj}$$

After specifying the appropriate student-level covariates for the model(s), random coefficient model(s) were constructed to explore if any of the coefficient slopes vary randomly between chapters (see Equation 3). If any of the slopes did not vary significantly, the corresponding coefficients were fixed. Before proceeding to include chapter-level predictors in the model, the reliabilities for the intercept and, if relevant, coefficient slopes were assessed. If the slopes had reliability values above .05, the random coefficients were retained for future models (Raudenbush & Bryk, 2002).

Equation 4.

$$Y_{ij} = \beta_{0j} + \beta_{1j}X_{1j} + \ldots + \beta_{kj}X_{kj} + r_{ij}$$

$$\beta_{0j} = \gamma_{0j} + \gamma_{01}X_{01j} + \ldots + \gamma_{k1}X_{k1j} + u_{0j}$$

$$\beta_{1j} = \gamma_{10} + u_{1j}$$

…

$$\beta_{kj} = \gamma_{k0} + u_{kj}$$

Upon completing the specification of the student-level covariates, the chapter-level centered masculine norms predictors were added to the models (see Equation 4). These masculine norm variables were entered as a single block into the models at the intercepts (see Table 3.13). Abiding by Raudenbush and Bryk's (2002) recommendations, if a group-mean centered masculine norm was found to not be a statistically significant predictor of an outcome at either the individual- or chapter-level, the individual masculine norm and masculine norm climate were removed from subsequent models, and the individual level models were re-specified to account for the exclusion of this norm. Next, the chapter-level demographic variables for institution size, sector and country were entered into the models as a single block. Statistically significant chapter-level predictors from this block were retained for subsequent models. Next, the chapter-level demographic variables for chapter membership size and chapter

housing status were entered into the models as a single block. Statistically significant chapter-level predictors from this block were retained for the final model. If any of the chapter-level demographic variables were retained, final specified models were created examine the relationships among the predictors and outcomes. The reliabilities for the intercept and, if relevant, coefficient slopes were assessed after specifying the chapter-level predictors. If the slopes have reliability values above .05, the random coefficients were allowed to vary in the final model (Raudenbush & Bryk, 2002). The models were examined to see how much individual-level, chapter-level, and overall variance can be explained by the inclusion of the chapter-level variables.

Investiture Socialization Climate as a Cross-level Moderator

For the models that found the relationships between individual masculine norm conformity and an outcome vary across the population of chapters, the final step in the analyses was the inclusion of the individual-level investiture socialization and investiture socialization climate variables. If any of these slopes are statistically significant, investiture socialization climate were added at the intercept and slopes of the individual-level random coefficients of the masculine norms. Statistically significant individual-level and chapter-level predictors, and interaction terms were retained in the models. The reliabilities for the intercept and coefficient slopes were assessed after specifying the chapter-level predictors and interaction terms. The model(s) were examined to see how much individual-level, chapter-level, and overall variance can be explained by the inclusion of the chapter-level variables. This allowed for exploration of the cross-level interaction terms to identify if investiture socialization climate moderates the relationship between individual-level masculine norms and the outcomes (Hofmann & Gavin, 1998).

Table 3.13.

Proposed Building of Intercepts and Slopes-as-Outcomes Models

Variable	Model 4	Model 5	Model 6	Model 7
CMNI-46				
Mean Winning	X	X*	X*	X*
Mean Violence	X	X*	X*	X*
Mean Risk-Taking	X	X*	X*	X*
Mean Emotional Control	X	X*	X*	X*
Mean Self-Reliance	X	X*	X*	X*
Mean Primacy of Work	X	X*	X*	X*
Mean Power over Women	X	X*	X*	X*
Mean Playboy	X	X*	X*	X*
Mean Heterosexual Presentation/Disdain for Homosexuals	X	X*	X*	X*
Institutional Size		X	X*	X*
Sector				
Private		X	X*	X*
Country of Institution				
Canadian		X	X*	X*
Chapter Membership Size			X	X*
Chapter Housing Status				
Unhoused			X	X*

*These variables will be retained in the models if either they or the corresponding individual-level group mean centered variables statistically significantly predict the outcomes

Limitations

It is important to note the limitations of the study. Though the use of a large dataset collected from a single national fraternity allowed for HLM analysis, and provided other benefits (e.g., increased power), the examination of a single organization may limit the generalizability of the findings. Similar limitations were noted by other scholars that have used HLM to study members and chapters of single national fraternities (Caudill et al., 2006). While efforts were made to ensure that Philadelphian Fraternity is representative of its NIC peers, drinking

behaviors, attitudes towards hazing, masculine norm adoption, and socialization tactics may be specific to this fraternity.

Rios-Aguilar (2014) challenged critical quantitative scholars to reflect on their methodical decision-making, and to consider the forces that shape these decisions. While the study relied on a conceptual framework that did not prioritize specific aspects of gender performance over others, the reliance on group-mean centered masculine norms in HLM dictated that non-statistically significant norms were excluded from subsequent statistical models (Raudenbush & Bryk, 2002). It is important to acknowledge the tension between this modeling decision and the conceptualization of gender relied on this study. In addition, though particular masculine norms may be absent from the final models for particular outcomes, statistical significance or the lack thereof does not value one gender script over another.

Another limitation might be caused the reliance on self-reported data to examine the outcomes and a majority of the predictors. Though most fraternity and sorority studies rely on self-reported data from undergraduate members (see Biddix et al., 2014 for a review of methodologies), the validity of the data for this study might be in question because of the sensitive topics of alcohol use and hazing. Schaeffer and Presser (2003) noted that it can be challenging to study sensitive behaviors with surveys, and might lead to selection bias, or case or item nonresponse. A variety of other contextual effects and other influences may promote response error from the participants (Brenner, 2015; Tourangeau & Galesic, 2008).

Like the individual-level data, the aggregated chapter-level predictors were constructed from self-reported student data that might not represent the actual contexts of the chapters. For example, while the participants from a specific chapter might be very individually competitive, the ethos of their chapter might not endorse competition. However, these aggregated variables,

though potential close to the individual-level predictors, might be slightly different constructs that are representative of their chapters' norms and socialization tactics (Bliese, 2000).

Employing a cross-sectional survey design is yet another limitation. While the study provides new knowledge about the relationships among collective chapter masculine norms, investiture socialization climate, and the problematic behaviors and attitudes of fraternity member, these relationships cannot be defined as causal. Therefore, it is impossible to know if the outcomes from this study are a result of the members' fraternity experiences, that other potential influences.

Summary and Conclusion

This chapter provided an overview of the methodology for this study. After reviewing the problem and purpose of this study, the chapter began with an overview of internet-based survey used by Dyad to collect data from the 4,051 undergraduate members of Philadelphian Fraternity. Though the study relied on HLM analysis, the positionality of the researcher was addressed to comply with the recommendations for critical quantitative inquires (Rios-Aguilar, 2014). The individual and chapter samples were described, and a review of the variables was provided. Finally, the intended procedures for data analysis were described, and the limitations of this study were addressed. Though limitations do exist, the study addressed Biddix et al.'s (2014) call for examinations of the between-group differences of college fraternities, provide knowledge about how collective chapter masculine norms may relate to the problematic behaviors of fraternity men, and examined the relationship between investiture socialization, individual masculine norm conformity and fraternity members' problematic behaviors.

Chapter IV: Results

Introduction

The purpose of the study was to examine the extent to which undergraduate fraternity members' conformity to traditional masculine norms varied among fraternity chapters, and how the extent of chapter traditional masculine norms climates related to students' alcohol consumption behaviors or endorsement of hazing rationales. Also, if relationships among individuals' conformity masculine norms and these problematic behaviors and attitudes were found to vary across the population of chapters, then this study examined if the investiture socialization climates of fraternity chapters moderated these relationships. Using descriptive statistics and hierarchical linear modeling, this chapter reviews the results of the study in response to the following research questions:

The following research questions guided the study:

1. What are the alcohol consumption behavior and hazing rationale patterns among fraternity members and their chapters?
2. How do members' conformity to masculine norms vary between chapters, and exhibit chapter-level properties?
3. How, if at all, do the alcohol consumption behaviors and hazing rationales of individual fraternity members vary from fraternity chapter to fraternity chapter, and, if so,
4. How, if at all, do the fraternity chapter masculine norm climates relate to these problematic behaviors and attitudes?

5. If applicable, does investiture socialization moderate the relationship between individual masculine norm adoption and their problematic behaviors or attitudes that vary across the population of chapters?

Research Question One: Analyses of Patterns

The first research question examined the patterns of the alcohol consumption behaviors and hazing rationales of fraternity men and their chapters. The following section reviews the findings for the patterns of the alcohol consumption behaviors of fraternity members and their chapters. A subsequent section reviews the findings about the patterns of the hazing rationales endorsed by fraternity members and their chapters.

Alcohol Consumption Behaviors

Individual patterns. A majority of participants reported that they engage in problematic alcohol use behaviors, as 76.5% of participants scored four or above on the AUDIT-C, indicative of hazardous drinking (Bush et al., 1998). The mean AUDIT-C score reported by participants was 5.53 ($SD = 2.93$). The results also indicate that binge drinking, consuming five or more drinks during an occurrence, was an issue for many of the participants. Though the AUDIT-C items do not measure binge drinking by the aforementioned definition, 46.2% of participants reported consuming five or more drinks during a typical drinking day, and 55.1% reported consuming six or more drinks at least once a month. The results suggest that problematic drinking was an issue among this population of college students. These findings indicate that fraternity men in this sample engage in problematic alcohol use behaviors.

A series of analyses were conducted to examine the relationship of the categorical predictors and members' alcohol consumption behaviors. The results from the one-way ANOVA indicated that members' alcohol consumption behaviors related to their class years

($F(3,2674) = 14.741, p < .001$). Descriptive analysis identified that the reported AUDIT-C scores were greater for students further along in their undergraduate careers (see Table 4.1). In addition, the findings indicated that members' alcohol consumption behaviors related to their reported race or ethnicity ($F(3,2673) = 5.878, p < .001$). Descriptive analysis found that White-identifying ($M = 5.656$) and multiracial, multiethnic, Native American or other identifying ($M = 5.859$) participants reported higher AUDIT-C scores than their peers (see Table 4.2). An independent means t-test indicated that alcohol consumption behaviors of fraternity house residents ($M = 5.693, SD = 2.869$) and members living outside of the fraternity house ($M = 5.454, SD = 2.964$) are statistically significantly different ($t = 1.977, df = 2674, p < .05$). Thus, the findings indicate that the alcohol consumption behaviors of fraternity members in the sample differ based on their class years, racial or ethnic identities, and whether they reside in a fraternity house or not.

Table 4.1.

Descriptive Statistics for Outcomes by Class Year

	Freshman (n=561)	Sophomore (n=807)	Junior (n=751)	Senior (n=559)
	Mean (S.D.)	Mean (S.D)	Mean (S.D.)	Mean (S.D)
AUDIT-C	5.025 (3.075)	5.346 (3.082)	5.686 (2.766)	6.107 (2.672)
Social dominance hazing rationale	2.276 (0.844)	2.159 (0.840)	2.077 (0.854)	2.055 (0.857)
Solidarity hazing rationale	4.253 (0.6045)	4.113 (0.666)	4.043 (0.644)	4.092 (0.654)
Loyalty hazing rationale	3.546 (0.672)	3.453 (0.670)	3.371 (0.662)	3.421 (0.664)
Instrumental education hazing rationale	4.220 (0.570)	4.147 (0.590)	4.129 (0.605)	4.152 (0.598)

Table 4.2.

Descriptive Statistics for Outcomes by Race and Ethnicity

	Asian, Native Hawaiian or Pacific Islander (n=246)	Black (n=80)	Hispanic/Latino (n=183)	Multiracial, multiethnic, Native American or other identifying (n=64)	White (n=2105)
	Mean (S.D.)	Mean (S.D)	Mean (S.D.)	Mean (S.D)	Mean (S.D)
AUDIT-C	4.959 (3.185)	5.263 (3.088)	4.891 (2.963)	5.859 (3.206)	5.656 (2.873)
Social dominance hazing rationale	2.329 (0.960)	2.256 (0.856)	2.171 (0.893)	2.242 (0.845)	2.106 (0.832)
Solidarity hazing rationale	3.999 (0.774)	4.100 (0.734)	4.183 (0.625)	3.973 (0.690)	4.098 (0.635)
Loyalty hazing rationale	3.477 (0.746)	3.453 (0.616)	3.451 (0.717)	3.409 (0.637)	3.411 (0.652)
Instrumental education hazing rationale	4.047 (0.724)	4.183 (0.700)	4.232 (0.591)	4.056 (0.662)	4.159 (0.574)

Additional analyses were conducted to examine the relationships between the individual-level masculine norm and investiture socialization predictors (see Table 4.3). Eight of the nine masculine norm predictors were found to be positively correlated to a member's alcohol consumption behaviors at statistically significant levels of $p<.01$. The CMNI primacy of work subscale and investiture socialization were found have negative relationships with a member's AUDIT-C score, $p<.001$.

Table 4.3.

Correlation between Individual-level Outcomes and Scale Predictors

	Alcohol consumption	Social dominance hazing rationale	Solidarity hazing rationale	Loyalty hazing rationale	Instrumental education hazing
CMNI subscales					
Violence	0.241**	0.138**	0.024	0.073**	-0.005
Risk-taking	0.181**	0.197**	0.068**	0.160**	0.019
Winning	0.162**	0.129**	0.110**	0.187**	0.068**
Emotional control	0.111**	0.086**	-0.105**	-0.022	-0.106**
Self-reliance	0.121**	0.166**	-0.123**	0.012	-0.159**
Primacy of work	-0.039*	0.034	0.104**	0.043*	0.063**
Heterosexual presentation	0.157**	0.327**	0.023	0.208**	-0.48*
Power over women	0.146**	0.423**	-0.109**	0.172**	-0.187**
Playboy	0.258**	0.276**	-0.037	0.103**	-0.109**
Investiture socialization	-0.112**	-0.387**	0.183**	-0.174**	0.234**

**p<.05, **p<.01*

Chapter patterns. Consistent with the individual-level findings, 85.5% of chapters in this study had mean AUDIT-C scores indicative of hazardous drinking climates. The mean AUDIT-C score for chapters was 5.423 ($SD = 1.338$). A series of analyses were conducted to examine the relationship of the categorical chapter-level predictors and alcohol consumption climates of chapters. While the mean of the alcohol consumption climates of chapters located at private institutions ($M = 5.765, SD = 1.402$) was greater than that of those located at public institutions ($M = 5.283, SD = 1.300$), an independent means t-test revealed that the means were not statistically significantly different ($t = 1.432, df = 74, p > .05$). Likewise, the mean of the alcohol consumption climates of chapters located in Canada ($M = 5.600, S.D. = 1.314$) was greater than that of those located at public institutions ($M = 5.413, SD = 1.349$); however, an independent means t-test revealed that the means were not statistically significantly different

($t = 0.269, df = 74, p > .05$). The results indicated that the mean of the alcohol consumption climates of unhoused chapters ($M = 5.573, S.D. = 1.363$) was greater than that of chapters with fraternity house ($M = 5.3616, SD = 1.337$). However, this difference was not statistically

Table 4.4.

Correlation between Chapter-level Outcomes and Scale Predictors

	Alcohol consumption climate	Social dominance hazing rationale climate	Solidarity hazing rationale climate	Loyalty hazing rationale climate	Instrumental education hazing climate
CMNI subscales					
Violence climate	0.342**	0.062	0.150	-0.003	0.213
Risk-taking climate	0.356**	0.330**	0.313**	0.341**	0.181
Winning climate	0.400**	0.444**	0.181	.0312**	-0.082
Emotional control climate	0.088	0.002	-0.147	-0.140	-0.029
Self-reliance climate	0.185	0.034	-0.052	-0.086	-0.050
Primacy of work climate	0.227*	0.194	0.201	0.190	0.002
Heterosexual presentation climate	0.316**	0.513**	0.264*	0.377**	0.012
Power over women climate	0.208	0.500**	0.213	0.377**	-0.048
Playboy climate	0.393**	0.396**	0.275*	0.358*	0.393**
Investiture socialization climate	-0.073	-0.495**	-0.108	-0.388**	-0.004
Institutional size	-0.113	0.253*	0.093	0.220	0.021
Chapter size	0.106	0.484**	0.055	0.206	-0.358**

**p<.05, **p<.01*

significant ($t = -0.622, df = 74, p > .05$). These findings indicate that chapters do not differ in their alcohol consumption climates based on institutional sector, country, or chapter housing status.

Additional analyses were conducted to examine the relationships among the masculine norm, investiture socialization climate, chapter size, and institutional size predictors, and a chapter's alcohol consumption behaviors climate (see Table 4.4). The violence, risk-taking, winning, primacy of work, heterosexual presentation and playboy masculine norm climate predictors were found to be positively correlated with AUDIT-C climate, $p<.01$. No other chapter-level predictor was found to have a statistically significant relationship with the outcome.

Hazing Rationales

Social dominance hazing rationale.

Individual patterns. The findings indicated that a minority of participants endorsed a social dominance hazing mentality. For example, only 162 (6.1%) agreed or strongly agreed with the statement, "I have the right to treat Associate members as I please." The mean social dominance hazing rationale score for members was 2.139 ($SD = 0.852$). These findings indicated that social dominance does not serve as a primary motivation to engage in hazing behaviors for a majority of participants.

A series of analyses were conducted to examine the relationship of the categorical predictors and members' support of social dominance hazing rationale. The results from the one-way ANOVA indicated that members' endorsement of social dominance hazing rationale related to their class years ($F(3,2674) = 5.892, p < .001$). Descriptive analysis identified that the mean social dominance hazing scores were highest for freshmen ($M = 2.276, SD = 0.844$) and lower

for cohorts further along in their academic careers (see Table 4.1). In addition, the findings indicated that members' endorsement of social dominance hazing related to their reported race or ethnicity ($F(3,2673) = 4.553, p < .01$). Students identifying as Asian, Native Hawaiian or Pacific Islander reported the highest mean social dominance hazing score ($M = 2.329, SD = 0.960$), while students identifying as White reported the lowest mean score ($M = 2.106, SD = 0.832$) (see Table 4.2). An independent means t-test indicated that the endorsement of social dominance hazing by fraternity house residents ($M = 2.071, SD = 0.797$) and members living outside of the fraternity house ($M = 2.172, SD = 0.876$) were statistically significantly different ($t = -2.992, df = 1906.944, p < .01$). Thus, the findings indicate that participants' endorsement of social dominance hazing differ based on their class years, racial or ethnic identities, and whether they reside in a fraternity house or not.

Additional analyses were conducted to examine the relationships between the individual-level masculine norm and investiture socialization predictors, and the outcome (see Table 4.3). Eight of the nine masculine norm predictors were found to be positively correlated to a member's social dominance hazing rationale at statistically significant levels of p<.01. The CMNI primacy of work subscale was found to not have a statistically significant relationship with social dominance hazing rationale. Investiture socialization was found have negative relationship with the outcome, p<.01.

Chapter patterns. A series of analyses were conducted to examine the relationship of the categorical chapter-level predictors and social dominance hazing rationale climates of chapters. The mean social dominance hazing rationale climate scores for chapters was 2.085 ($SD = 0.310$). While the mean of the social dominance hazing rationale climates of chapters located at private institutions ($M = 2.009, SD = 0.322$) was less than that of those located at public

institutions ($M = 2.115, SD = 0.303$), an independent means t-test revealed that the means were not statistically significantly different ($t = -1.370, df = 74, p > .05$). Likewise, the mean of the social dominance hazing rationale climates of chapters located in Canada ($M = 2.006, S.D. = 0.276$) was less than that of those located in the United States ($M = 2.089, SD = 0.313$); however, an independent means t-test revealed that the means were not statistically significantly different ($t = -0.519, df = 74, p > .05$). In addition, the results indicated that the mean of the social dominance hazing rationale climates of chapters with fraternity houses ($M = 2.115, S.D. = 0.316$) was greater than that of chapters without fraternity houses ($M = 2.009, SD = 0.288$). However, this difference was not statistically significant ($t = 1.370, df = 74, p > .05$). These findings indicate that chapters do not differ in their social dominance hazing rationale climates based on institutional sector, country, or chapter housing status.

Additional analyses were conducted to examine the relationships among the masculine norm, investiture socialization climate, chapter size, and institutional size predictors, and a chapter's social dominance hazing rationale climate (see Table 4.4). The risk-taking, winning, heterosexual presentation, power over women, and playboy masculine norm climate predictors, as well as chapter size, were found to be positively correlated with this hazing rationale climate, $p<.01$. Institutional size was found to be positively correlated to the outcome, too, $p<.05$. Investiture socialization climate was found to be negatively correlated to social dominance hazing rationale, $p<.01$.

Solidarity hazing rationale.

Individual patterns. The findings indicated that a majority of participants endorsed a solidarity hazing mentality. For example, 2,228 (83.1%) agreed or strongly agreed with the statement, "One of the main outcomes of our Associate member process is to unify the group."

The mean solidarity hazing rationale score for members was 4.092 ($SD = 0.654$). These findings indicated that a desire to promote solidarity among new members may serve as a motivation to engage in hazing behaviors for a majority of participants.

A series of analyses were conducted to examine the relationship of the categorical predictors and members' support of solidarity hazing rationale. The results from the one-way ANOVA indicated that members' endorsement of solidarity hazing rationale related to their class years ($F(3,2674) = 20.567, p < .001$). Descriptive analysis identified that the mean solidarity hazing scores were highest for freshmen ($M = 4.253, SD = 0.605$) and lower for cohorts further along in their academic careers (see Table 4.1). In addition, the findings indicated that members' endorsement of solidarity hazing related to their reported race or ethnicity ($F(3,2673) = 2.174, p < .05$). Students identifying as Hispanic or Latino reported the highest mean score ($M = 4.183, SD = 0.625$) (see Table 4.2). An independent means t-test indicated that the endorsement of solidarity hazing by fraternity house residents ($M = 4.081, SD = 0.668$) and members living outside of the fraternity house ($M = 4.097, SD = 0.647$) were not statistically significantly different ($t = -0.578, df = 2676, p > .05$). Thus, the findings indicate that participants' endorsement of solidarity hazing differ based on their class years, and racial or ethnic identities, but not their residency status.

Additional analyses were conducted to examine the relationships between the individual-level masculine norm and investiture socialization predictors, and the outcome (see Table 4.3). Risk-taking, winning, primacy of work, and investiture socialization were found to be positively correlated to a member's solidarity hazing rationale at statistically significant levels of $p<.01$. The CMNI subscales for violence, heterosexual presentation and playboy were found to not have a statistically significant relationship with solidarity hazing rationale. The masculine norms of

emotional control, self-reliance, and power over women were found to have negative relationships with the outcome, p<.01.

Chapter patterns. A series of analyses were conducted to examine the relationship of the categorical chapter-level predictors and solidarity hazing rationale climates of chapters. The mean solidarity hazing rationale climate scores for chapters was 4.094 ($SD = 0.233$). While the mean of the solidarity hazing rationale climates of chapters located at private institutions ($M = 4.063, SD = 0.265$) was less than that of those located at public institutions ($M = 4.106, SD = 0.220$), an independent means t-test revealed that the means were not statistically significantly different ($t = -0.728, df = 74, p > .05$). Likewise, the mean of the solidarity hazing rationale climates of chapters located in Canada ($M = 4.149, S.D. = 0.132$) was greater than that of those located in the United States ($M = 4.091, SD = 0.237$); however, an independent means t-test revealed that the means were not statistically significantly different ($t = 0.482, df = 74, p > .05$). In addition, the results indicated that the mean of the solidarity hazing rationale climates of chapters with fraternity houses ($M = 4.071, S.D. = 0.241$) was less than that of chapters without fraternity house ($M = 4.148, SD = 0.208$). However, this difference was not statistically significant ($t = -1.312, df = 74, p > .05$). These findings indicate that chapters do not differ in their solidarity hazing rationale climates based on institutional sector, country, or chapter housing status.

Additional analyses were conducted to examine the relationships among the masculine norm, investiture socialization climate, chapter size, and institutional size predictors, and a chapter's solidarity hazing rationale climate (see Table 4.4). Only risk-taking ($0.313, p < .01$), heterosexual presentation ($0.264, p < .05$) and playboy ($0.275, p < .05$) masculine norm climates were found to have statistically significant positive relationships with the solidarity

hazing rationale climates of chapters. No other climate predictor was found to have a statistically significant relationship with the outcome.

Loyalty hazing rationale.

Individual patterns. The findings were mixed regarding participants' endorsement of loyalty hazing mentality. For example, 2068 (77.2%) agreed or strongly agreed with the statement, "Associate members must show that they are committed to the chapter", while only 647 (24.2%) agreed or strongly agreed with the statement, "It is important for Associate members of our chapter to place the chapters' needs over their own". The mean loyalty hazing rationale score for members was 3.421 ($SD = 0.664$). These findings indicated that a desire to foster chapter commitment among new members may not serve as primary motivation to engage in hazing behaviors for a majority of participants.

A series of analyses were conducted to examine the relationship of the categorical predictors and members' support of loyalty hazing rationale. The results from the one-way ANOVA indicated that members' endorsement of loyalty hazing rationale related to their class years ($F(3,2674) = 13.224, p < .001$). Descriptive analysis identified that the mean solidarity hazing scores were highest for freshmen ($M = 3.546, SD = 0.672$) and lower for cohorts further along in their academic careers (see Table 4.1). In addition, the findings indicated that members' endorsement of solidarity hazing did not relate to their reported race or ethnicity ($F(3,2673) = 0.703, p > .05$). The mean loyalty hazing rationale scores were fairly consistent among race and ethnic groups (see Table 4.2). An independent means t-test indicated that the endorsement of loyalty hazing by fraternity house residents ($M = 3.393, SD = 0.664$) and members living outside of the fraternity house ($M = 3.435, SD = 0.664$) were not statistically significantly different ($t = -1.526, df = 2676, p > .05$). Thus, the findings indicate that participants'

endorsement of loyalty hazing differ based on their class years with the highest ratings for freshmen, but not their race and ethnicity, or residency status.

Additional analyses were conducted to examine the relationships between the individual-level masculine norm and investiture socialization predictors, and the outcome (see Table 4.3). Six of the nine masculine norm predictors, violence, risk-taking, winning, heterosexual presentation, power over women, and playboy were found to be positively correlated to a member's loyalty hazing rationale at statistically significant levels of $p<.01$. Primacy of work has a statistically significant positive relationship with the outcome with $p<.05$. The CMNI subscales of emotional control and self-reliance were found to not have a statistically significant relationship with loyalty hazing rationale. Investiture socialization was found to have a negative relationship with the outcome, $p<.01$.

Chapter patterns. A series of analyses were conducted to examine the relationship of the categorical chapter-level predictors and loyalty hazing rationale climates of chapters. The mean loyalty hazing rationale climate scores for chapters was 3.411 ($SD = 0.249$). While the mean of the loyalty hazing rationale climates of chapters located at private institutions ($M = 3.345, SD = 0.292$) was less than that of those located at public institutions ($M = 3.438, SD = 0.227$), an independent means t-test revealed that the means were not statistically significantly different ($t = -1.490, df = 74, p > .05$). Likewise, the mean of the loyalty hazing rationale climates of chapters located in Canada ($M = 3.494, S.D. = 0.121$) was greater than that of those located in the United States ($M = 3.407, SD = 0.254$); however, an independent means t-test revealed that the means were not statistically significantly different ($t = 0.680, df = 74, p > .05$). In addition, the results indicated that the mean of the loyalty hazing rationale climates of chapters with fraternity houses ($M = 3.397, S.D. = 0.246$) was less than that of chapters without

fraternity houses ($M = 3.447, SD = 0.261$). However, this difference was not statistically significant ($t = -.771, df = 74, p > .05$). These findings indicate that chapters do not differ in their solidarity hazing rationale climates based on institutional sector, country, or chapter housing status.

Additional analyses were conducted to examine the relationships among the masculine norms, investiture socialization climate, chapter size, and institutional size predictors, and a chapter's loyalty hazing rationale climate (see Table 4.4). Risk-taking ($0.341, p < .01$), winning ($0.312, p < .01$), heterosexual presentation ($0.377, p < .01$), power over women ($0.377, p < .01$), and playboy ($0.358, p < .05$) masculine norm climates were found to have statistically significant positive relationships with the loyalty hazing rationale climates of chapters. Investiture socialization was found to have a statistically significant negative relationship with the outcome ($-0.388, p < .01$). No other climate predictor was found to have a statistically significant relationship with the loyalty hazing rationale climate.

Instrumental education hazing rationale.

Individual patterns. The findings indicated that a majority of participants endorsed an instrumental education hazing mentality. For example, 2235 (83.5%) agreed or strongly agreed with the statement, "Educating Associate Members is most effective when it teaches them about chapter expectations." The mean instrumental education hazing rationale score for members was 4.152 ($SD = 0.598$). These findings indicated that a desire to educate newcomers may serve as a motivation to engage in hazing behaviors for a majority of participants.

A series of analyses were conducted to examine the relationship of the categorical predictors and members' support of instrumental education hazing rationale. The results from the one-way ANOVA indicated that members' endorse of solidarity hazing rationale related to their

class years ($F(3,2674) = 3.339, p < .05$). Descriptive analysis identified that the mean solidarity hazing scores were highest for freshmen ($M = 4.220, SD = 0.570$) and lower for cohorts further along in their academic careers (see Table 4.1). In addition, the findings indicated that members' endorsement of solidarity hazing related to their reported race or ethnicity ($F(3,2673) = 3.328, p < .05$). Students identifying as Hispanic or Latino reported the highest mean score ($M = 4.232, SD = 0.591$) (see Table 4.2). An independent means t-test indicated that the endorsement of instrumental education hazing by fraternity house residents ($M = 4.151, SD = 0.608$) and members living outside of the fraternity house ($M = 4.152, SD = 0.592$) were not statistically significantly different ($t = -0.045, df = 2676, p > .05$). Thus, the findings indicate that participants' endorsement of instrumental education hazing differ based on their class years, and racial or ethnic identities, but not their residency status.

Additional analyses were conducted to examine the relationships between the individual-level masculine norms and investiture socialization predictors, and the outcome (see Table 4.3). Winning, primacy of work, and investiture socialization were found to be positively correlated to a member's instrumental education hazing rationale at statistically significant levels of p<.01. The CMNI subscales of violence and risk-taking were found to not have a statistically significant relationship with the outcome. Emotional control, self-reliance, power over women and playboy were found have negative relationships with a member's instrumental education hazing rationale score, p<.01, while heterosexual presentation was negatively correlated with the outcome at p<.05.

Chapter patterns. A series of analyses were conducted to examine the relationship of the categorical chapter-level predictors and instrumental education hazing rationale climates of chapters. The mean instrumental education hazing rationale climate score for chapters was 4.190

($SD = 0.199$). While the mean of the instrumental education hazing rationale climates of chapters located at private institutions ($M = 4.139, SD = 0.190$) was less than that of those located at public institutions ($M = 4.211, SD = 0.200$), an independent means t-test revealed that the means were not statistically significantly different ($t = -1.438, df = 74, p > .05$). Likewise, the mean of the instrumental education hazing rationale climates of chapters located in Canada ($M = 4.240, S.D. = 0.101$) was greater than that of those located in the United States ($M = 4.188, SD = 0.203$); however, an independent means t-test revealed that the means were not statistically significantly different ($t = 0.509, df = 74, p > .05$). Unlike the other predictors, the results indicated that the mean of the instrumental education hazing rationale climates of chapters with fraternity houses ($M = 4.161, S.D. = 0.193$) was less than that of chapters without fraternity houses ($M = 4.262, SD = 0.200$), and that this difference was statistically significant ($t = -2.013, df = 74, p < .05$). These findings indicate that chapters did not differ in their instrumental education hazing rationale climates based on institutional sector or country, but that differences existed between housed and unhoused chapters.

Additional analyses were conducted to examine the relationships among the masculine norms, investiture socialization climate, chapter size, and institutional size predictors, and a chapter's instrumental education hazing rationale climate (see Table 4.4). Only playboy ($0.393, p < .01$) masculine norm climate was found to have statistically significant positive relationship with the instrumental education hazing rationale climate of chapters. Chapter size was found to have a statistically significant negative relationship with the outcome ($-0.358, p < .01$). No other climate predictor was found to have a statistically significant relationship with instrumental education hazing rationale climate.

Research Question One Summary

The first research question examined the alcohol consumption behavior and hazing rationale patterns among fraternity men and their chapters. Fraternity members that participated in the study overwhelmingly reported that they engaged in hazardous alcohol consumption behaviors. However, members' alcohol use varied based on aspects of their identities and experiences (e.g., class year), and correlated with their conformity to traditional masculine norms and support of investiture socialization tactics. In examining the alcohol consumption patterns among chapters, only violence, risk-taking, winning, primacy of work, heterosexual presentation and playboy masculine norm climate predictors were found to be positively correlated with this outcome.

Similar to members' alcohol consumption behaviors, a majority of respondents endorsed solidarity and instrumental education hazing rationales. Findings were less conclusive related to members' endorsement of loyalty hazing rationale, and only a minority of students endorsed social dominance hazing. Freshmen were found to endorse all four hazing rationales to a greater extent than more veteran members. Differences in members' support of hazing rationales based on their identified race or ethnicity, and whether they resided in a fraternity house or not were inconsistent across the four outcomes. Like members' reported alcohol consumption behaviors, their conformity to masculine norms and support of investiture socialization tactics were found to relate to their endorsement of hazing rationales. At a chapter level, chapter masculine norm climates correlated with chapter hazing rationale climates, though only playboy climate correlated with chapter instrumental education hazing rationale climate. Investiture socialization climate correlated with social dominance hazing rationale climate and loyalty hazing rationale climate. Chapter size was found to have a statistically significant positive relationship with social

dominance hazing rationale climate, and was negatively correlated with instrumental education hazing rationale climate.

Because the findings indicated that relationships among masculine norms and the problematic outcomes of fraternity men at individual and chapter levels, the next section explores the operationalization of masculine norm climate predictors.

Research Question Two: Traditional Masculine Norm Variance

The second research question examined if individual member's conformity to traditional masculine norms varies among fraternity chapters, and exhibits chapter-level properties. As described in Chapter III, hierarchical linear modeling (HLM) was used to create unconditional models to identify the amount of variance in students' conformity to traditional masculine norms that can be explained by the variance between chapters (see Table 4.5). The proportions of variance for these models at the organizational-level, the unconditional intraclass correlation coefficients (ICCs), were statistically significant for all of the masculine norm outcomes, $p<.001$. For example, 8.32% of the variance of the students' reported adherence to the norm of heterosexual presentation was attributable to variance between chapters, if there are no predictor variables in the model ($\chi^2 = 329.956, p < .001$). The ICCs ranged from 2.36% for emotional control to 8.32% for heterosexual presentation and full CMNI-46 scale.

The reliability estimates for the intercepts of the norms were adequate for hierarchical linear modeling (HLM), though the sample means of heterosexual presentation, power over women, playboy, winning, primacy of work, and the total CMNI-46 scale were more reliable estimates than the other outcomes. These reliabilities indicate that there was sufficient stability across the parameter estimates for each chapter. Because of adequate reliability and between

chapter variance, the aggregated group-mean centered conformity to traditional masculine norm variables can be operationalized as chapter masculine norm climates.

Table 4.5

Student Traditional Masculine Norm Variance Explained by Variance between Chapters

Masculine Norm	ICC	λ	Design Effect	Effective Sample Size
Primacy of work	2.55%***	0.438	1.875	1428.507
Heterosexual presentation	8.32%***	0.705	3.847	696.030
Power over women	7.73%***	0.690	3.647	734.142
Playboy	6.90%***	0.665	3.361	796.812
Violence	4.18%***	0.552	2.430	1102.252
Self-reliance	2.79%***	0.457	1.954	1370.776
Emotional control	2.36%***	0.420	1.809	1480.754
Risk-taking	3.19%***	0.489	2.092	1279.975
Winning	7.26%***	0.676	3.485	768.447
CMNI-46 total	8.42%***	0.708	3.883	689.675

***p<0.001

Research Question Three: Between Chapter Variance of Outcomes

Alcohol Use between Chapter Variance

The third research question examined if members' problematic behaviors and attitudes varied between fraternity chapters. Utilizing HLM, an unconditional model was created to examine the between fraternity chapter variance in members' alcohol consumption behaviors. The proportion of variance in alcohol consumption accounted for by between-chapter variance without the inclusion of any predictors was 15.73% ($\chi^2 = 561.095, df = 75, p < .001$). The reliability estimate was 0.823, indicating that there was sufficient stability across the parameter estimates for each chapter. The deviance for this model with two parameters was 13065.499.

The design effect for the sample was 6.384. Therefore, the effective sample size was 419.467. Utilizing *Optimal Design* software for a post hoc power analysis (Spybrook et al., 2011), the minimum effect size that can be detected with the sample size of 2,678 students from

76 chapters for a power of 0.80, p<.05, is 0.277. There was adequate power to conduct additional HLM analyses.

Social Dominance Hazing Rationale between Chapter Variance

An unconditional model was created to examine if students' endorsement of social dominance hazing varied between fraternity chapters. The proportion of variance in social dominance hazing rationale accounted for by between-chapter variance without the inclusion of any predictors was 9.64% ($X^2 = 357.169, df = 75, p < .001$). The reliability estimate was .735, indicating that there was sufficient stability across the parameter estimates for each chapter. The deviance for this model with two parameters was 6587.698.

The design effect for the sample was 4.301. Therefore, the effective sample size was 622.656. Utilizing *Optimal Design* software for a post hoc power analysis (Spybrook et al., 2011), the minimum effect size that can be detected with the sample size of 2,678 students from 76 chapters for a power of .80, p<.05, is .229. There was adequate power to conduct additional HLM analyses.

Solidarity Hazing Rationale between Chapter Variance

An unconditional model was created to examine if students' endorsement of solidarity hazing varied between fraternity chapters. The proportion of variance in solidarity hazing rationale accounted for by between-chapter variance without the inclusion of any predictors was 5.69% ($X^2 = 219.826, df = 75, p < .001$). The reliability estimate was .623, indicating that there was sufficient stability across the parameter estimates for each chapter. The deviance for this model with two parameters was 5273.425.

The design effect for the sample was 2.946. Therefore, the effective sample size was 908.749. Utilizing *Optimal Design* software for a post hoc power analysis (Spybrook et al.,

2011), the minimum effect size that can be detected with the sample size of 2,678 students from 76 chapters for a power of .80, p<.05, is .188. There was adequate power to conduct additional HLM analyses.

Loyalty Hazing Rationale between Chapter Variance

An unconditional model was created to examine if students' endorsement of loyalty hazing varied between fraternity chapters. The proportion of variance in loyalty hazing rationale accounted for by between-chapter variance without the inclusion of any predictors was 9.83% ($X^2 = 338.418, df = 75, p < .001$). The reliability estimate was .739, indicating that there was sufficient stability across the parameter estimates for each chapter. The deviance for this model with two parameters was 5269.834.

The design effect for the sample was 4.365. Therefore, the effective sample size was 613.502. Utilizing *Optimal Design* software for a post hoc power analysis (Spybrook et al., 2011), the minimum effect size that can be detected with the sample size of 2,678 students from 76 chapters for a power of .80, p<.05, is .231. There was adequate power to conduct additional HLM analyses.

Instrumental Education Hazing Rationale between Chapter Variance

An unconditional model was created to examine if students' endorsement of instrumental hazing varied between fraternity chapters. The proportion of variance in instrumental hazing rationale accounted for by between-chapter variance without the inclusion of any predictors was 5.08% ($X^2 = 210.961, df = 75, p < .001$). The reliability estimate was .597, indicating that there was sufficient stability across the parameter estimates for each chapter. The deviance for this model with two parameters was 4799.443.

The design effect for the sample was 2.740. Therefore, the effective sample size was 977.314. Utilizing *Optimal Design* software for a post hoc power analysis (Spybrook et al., 2011), the minimum effect size that can be detected with the sample size of 2,678 students from 76 chapters for a power of .80, $p<.05$, is .182. There was adequate power to conduct additional HLM analyses.

Research Question Three Summary

Research question three examined if members' alcohol consumption behaviors and endorsement of four hazing rationales varied between fraternity chapters. The findings indicate that 15.73% of the variance in members' alcohol consumption behaviors, 9.64% of the variance in members' support of social dominance hazing rationale, 5.69% of the variance in members' support of solidarity hazing rationale, 9.83% of the variance in members' support of loyalty hazing rationale, and 5.08% of the variance in members' support of instrumental hazing rationale can be explained by variance between chapters. The next section explores the relationships among masculine norm climates and these outcomes.

Research Question Four: Masculine Norm Climates as Predictors of Outcomes

The fourth research question examined if chapter masculine norm climates explained the between chapter variance of members' alcohol consumption behaviors and endorsement of hazing rationales. To explore this question, HLM models were created for each of the outcomes that included individual-level and chapter-level predictors.

Alcohol Consumption Behaviors Models

Individual-level predictors. One-way ANCOVA with random effects models were constructed with fixed individual-level predictors to explain the within-chapter variance of member's alcohol consumption behaviors. Predictors were added to the models in blocks as

outlined in Chapter III (see Table 3.12). After initially specifying the model for individual-level predictors, all predictors were retained with the exception of fraternity house residential status (see Model 1e of Table 4.6). Controlling for race and ethnicity and class year, whether an individual lived in or outside of a fraternity house was not a significant predictor of alcohol use ($\gamma = 0.155, p > .05$).

Upon completion of the initial specification of the individual-level model, analyses were conducted to examine if any individual-level slopes varied significantly across the population of chapters prior to the inclusion of chapter-level predictors. In the final individual-level specified model prior to adding chapter-level variables, the unconditional variability of the freshman student slope was 0.805, $p<0.01$. In other words, the relationship between freshman class level and alcohol consumption varies significantly across the population of chapters. Though the sophomore, and senior class level slopes were not statistically significant, these predictors were allowed to vary randomly because of the statistical significance of freshman student slope. None of the race or ethnicity, or individual-level masculine norm slopes were found to vary significantly between chapters. Within this model, the reliability of the intercept is quite reliable, $\lambda = 0.622$. The reliabilities of the freshman student slope (0.318), sophomore student (0.191), and senior student (0.219) are less reliable, but all exceed the Raudenbush and Bryk (2002) recommendation for fixing these slopes.

Table 4.6.

Alcohol Use ANCOVA Model Estimates of Fixed Effects with Robust Standard Errors

Student-level Predictor	Model 1a b (S.E.)	Model 1b b (S.E.)	Model 1c b (S.E.)	Model 1d b (S.E.)	Model 1e b (S.E.)	Model 1f† b (S.E.)
Intercept	5.734*** (0.159)	5.672*** (0.173)	5.715*** (0.160)	5.704*** (0.160)	5.721*** (0.161)	5.725*** (0.16)
Class year						
Freshman	-0.709** (0.205)	-0.663** (0.208)	-0.694** (0.211)	-0.671** (0.211)	-0.707** (0.209)	-0.714** (0.209)
Sophomore	-0.450* (0.156)	-0.448* (0.154)	-0.427* (0.145)	-0.418* (0.148)	-0.412* (0.146)	-0.414* (0.146)
Senior	0.345 (0.170)	0.371 (0.170)	0.366 (0.169)	0.367 (0.169)	0.340 (0.170)	0.338 (0.170)
Student of color						
Asian	-0.732** (0.190)	-0.724** (0.189)	-0.703** (0.197)	-0.704** (0.197)	-0.734** (0.201)	-0.735** (0.201)
Black	-0.352 (0.324)	-0.354 (0.323)	-0.373 (0.324)	-0.368 (0.320)	-0.524 (0.315)	-0.532 (0.314)
Hispanic/Latino	-0.484 (0.224)	-0.482 (0.223)	-0.472 (0.208)	-0.427 (0.208)	-0.434 (0.197)	-0.447 (0.197)
Multiracial or other	0.117 (0.345)	0.127 (0.345)	0.162 (0.337)	0.159 (0.330)	0.225 (0.321)	0.236 (0.325)
Fraternity House Resident		0.155 (0.157)	-	-	-	-
Violence			0.166*** (0.016)	0.152*** (0.015)	0.125*** (0.014)	0.127*** (0.014)
Risk-taking			0.138*** (0.023)	0.134*** (0.023)	0.083*** (0.023)	0.082*** (0.023)
Winning			0.061** (0.023)	0.060** (0.019)	0.052** (0.020)	0.054** (0.019)
Emotional control				0.026 (0.020)	0.013 (0.020)	-
Self-reliance				0.065** (0.023)	0.021 (0.026)	-
Primacy of work				-0.054* (0.023)	-0.055* (0.021)	-0.057** (0.021)

Heterosexual presentation					0.058** (0.022)	0.058** (0.021)
Power over women					-0.014 (0.027)	-
Playboy					0.230*** (0.026)	0.234*** (0.026)
λ	0.825	0.825	0.836	0.837	0.843	0.843

*$p<0.05$, **$p<0.01$, ***$p<0.001$; ┼Specified model after creation initial chapter-level model

Table 4.7.

Chapter-level Coefficients for the Combined Models for Predicting Alcohol Consumption Behaviors with Robust Standard Errors

Chapter-level predictor	Model 3a b (S.E.)	Model 3b b (S.E.)	Model 3c b (S.E.)	Model 4d b (S.E.)
Intercept	-7.418* (2.854)	-5.066* (2.346)	-5.481* (2.405)	-5.285* (2.258)
Violence climate	0.071 (0.162)	0.146 (0.168)	0.111 (0.186)	0.205 (0.163)
Risk-taking climate	0.318 (0.187)	0.200 (0.182)	0.230 (0.173)	0.223 (0.180)
Winning climate	0.261* (0.128)	0.254 (0.133)	0.268* (0.129)	0.191 (0.129)
Emotional control climate	0.178 (0.186)	-	-	-
Self-reliance climate	0.036 (0.227)	-	-	-
Primacy of work climate	0.450 (0.260)	0.451 (0.268)	0.441 (0.260)	0.478 (0.258)
Heterosexual presentation climate	0.421** (0.133)	0.239* (0.105)	0.264* (0.102)	0.178 (0.110)
Power over women climate	-0.515 (0.267)	-	-	-
Playboy climate	0.303 (0.198)	0.141 (0.179)	0.209 (0.178)	0.158 (0.174)
Private college or university			0.237 (0.356)	-
Canadian college or university			0.112 (0.523)	-
Institution size			<-0.001 (<0.001)	-
Chapter with fraternity house				-0.190 (0.231)
Chapter size				0.008 (0.004)
λ	0.494	0.496	0.486	0.487

*$p<0.05$, **$p<0.01$

Chapter-level model for alcohol consumption.

Chapter masculine norm climates. After specifying the initial individual-level model, the chapter-level predictors were added to the model. The nine traditional masculine norm climate predictors were added as the first chapter-level block (see Table 4.7). In the initial model (see Model 3a in Table 4.7), power over women climate ($\gamma = -0.515, p > .05$), emotional control climate ($\gamma = 0.178, p > .05$), and self-reliance climate ($\gamma = 0.036, p > .05$), and individual-level power over women ($\gamma = -0.014, p > .05$), emotional control ($\gamma = 0.020, p > .05$), and self-reliance ($\gamma = 0.019, p > .05$), were found to not be statistically significant predictors of a member's alcohol consumption behaviors. Because the group mean centered pairs were not statistically significant, the individual-level and chapter-level predictors for power over women, emotional control, and self-reliance were removed from the model. The other individual-level and climate masculine norm predictors were retained in the model because the individual-level norms were all statistically significant predictors of alcohol consumption.

Revision to individual-level models. The decision to remove the aforementioned variables necessitated the re-specification of the individual-level model before the addition of any chapter-level predictors. A new chapter-level model without random coefficients was created that included the class year predictors, the race and ethnicity predictors, and the traditional masculine norms of violence, risk-taking, winning, primacy of work, heterosexual presentation, and playboy (see Model 1f in Table 4.6). As with previous ANCOVA models, the freshman and sophomore class year predictors and the Asian, Native Hawaiian and other Pacific Islander predictor were found to have statistically significant relationships with alcohol consumption after controlling for other covariates. Thus, all of the individual-level were retained for subsequent models. After reviewing this model, analyses were conducted to see if any of the relationships

among the individual-level predictors and alcohol consumption varied across the population of chapters. As with previous models, only the unconditional variability of freshman student slope was 0.800, $p<.01$. Though neither were statistically significant, the random coefficients for sophomore, and senior were retained in the model because of the significance of the freshman random coefficient. Because none of the traditional masculine norm slopes were significant, the model did not support testing the hypothesis that chapter-level investiture socialization moderates the relationships between chapter masculine norm climates and alcohol use. As such, investiture socialization was excluded from future models. The reliabilities for the intercept and random slopes remained the same as Model 1e, and all exceeded the standards to fix the slopes (Raudenbush & Bryk, 2002).

Revised chapter-level models. Upon finalizing the individual-level model, the six remaining chapter masculine norm climate predictors were added to the combined model (see Model 3b in Table 4.7). Though only heterosexual presentation climate was a statistically significant chapter-level predictor of alcohol consumption ($\gamma = 0.239, p < .05$), all six masculine norm climate predictors were retained in the model because the individual-level masculine norm predictors were found to be statistically significant.

The institutional context predictors of sector, country of institution, and institutional size were added to the model (see Model 3c in Table 4.7). None of these predictors had statistically significant relationships with alcohol consumption, and all three were removed from the model.

Next, the chapter context predictors of chapter membership size and chapter housing status were added to the model (see Model 3d in Table 4.7). Neither variable was a statistically significant predictor of alcohol consumption, and both were removed from the model. Because the contextual predictors were not statistically significant, Model 3b (see Table 4.7) was selected

as the final model for alcohol consumption. The reliability of the individual-level intercept of the final model was sufficient at 0.496. The reliabilities of the freshman slope (0.330), sophomore slope (0.204), and senior slope (0.206) are less reliable, but all exceed the Raudenbush and Bryk (2002) recommendation for fixing these slopes.

Table 4.8.

Specified Coefficients for the Final Model for Predicting Alcohol Consumption Behaviors

Predictors	λ	τ	b (S.E.)
Intercept	0.496	0.760***	-5.066* (2.346)
Student-level			
Class year			
Freshman	0.330	0.857**	-0.661** (0.189)
Sophomore	0.204	0.366	-0.407* (0.138)
Senior	0.206	0.450	0.445* (0.161)
Student of color			
Asian			-0.727** (0.196)
Black			-0.482 (0.311)
Hispanic/Latino			-0.371 (0.200)
Multiracial or other			0.149 (0.332)
Violence			0.131*** (0.013)
Risk-taking			0.078** (0.023)
Winning			0.051** (0.019)
Primacy of work			-0.057** (0.022)
Heterosexual presentation			0.056** (0.019)
Playboy			0.238*** (0.026)
Chapter-level			
Violence climate			0.146 (0.168)
Risk-taking climate			0.200 (0.182)
Winning climate			0.254 (0.133)
Primacy of work climate			0.451 (0.268)
Heterosexual presentation climate			0.239* (0.105)
Playboy climate			0.141 (0.179)

**p<.05, **p<.01, ***p<.001*

Final combined model for alcohol consumption behaviors. Table 4.8 details the results of the HLM model for the alcohol consumption. In response to the fourth research question, it was found that only heterosexual presentation climate had a statistically significant relationship

with the outcome ($\gamma = 0.239, p < .05$). The more that members of a fraternity chapter reported concerns about being perceived as gay, the more that individual members of that chapter reported they engaged in problematic alcohol consumption behaviors. No other chapter-level predictors were found to have statistically significant relationship with alcohol consumption.

The demographic variables for class year, and race and ethnicity were found to be statistically significant predictors of alcohol consumption. Students further along in their undergraduate careers were more likely to report more problematic alcohol consumption behaviors than students newer to college (e.g., Senior class level, $\gamma = 0.445, p < .05$). Though freshmen were predicted to have less problematic alcohol consumption behaviors than their peers ($\gamma = -0.661, p < .01$), the relationship between the freshman class level and alcohol consumption varied significantly among the population of chapters ($\tau = 0.857, p < .01$). In other words, while freshmen alcohol consumption behaviors are predicted to be less problematic then their peers, their behaviors vary from chapter to chapter. Like class year, race and ethnicity predictors were retained in the model (see Table 4.8). Controlling for other covariates, students that identified as Asian Native Hawaiian or Pacific Islander were predicted to report less problematic alcohol consumption behaviors than their peers ($\gamma = -0.727, p < .01$). No other demographic predictors retained in the model had statistically significant relationships with the outcome.

All six of the retained individual-level masculine norm variables were statistically significant predictors of a member's alcohol consumption behaviors, controlling for other covariates (see Table 4.8). Violence ($\gamma = 0.131, p < .001$), risk-taking ($\gamma = 0.078, p < .01$), winning ($\gamma = 0.051, p < .01$), heterosexual presentation ($\gamma = 0.056, p < .01$), and playboy ($\gamma = 0.238, p < .001$) had positive relationships with alcohol consumption, while primacy of

work had a negative relationship ($\gamma = -0.057, p < .01$). Individuals who indicated that they conform to the masculine norms of violence, risk-taking, winning, heterosexual presentation, and playboy more than other members of their chapters were more likely to report problematic alcohol consumption behaviors. Individuals who indicated that they conform to the masculine norm of primacy of work more than other members of their chapters were less likely to report problematic alcohol consumption behaviors.

The model explained 16.7% of the variance within chapters, and 44.2% of the variance between chapters. Though 21.0% of the total variance is accounted for in this model, there is still a statistically significant portion of variance that can be explained by the inclusion of other predictors ($X^2 = 122.84, df = 51, p < .001$).

Social Dominance Hazing Rationale Models

Individual-level predictors. One-way ANCOVA with random effects models were constructed with fixed individual-level predictors entered in blocks as outlined in Chapter III to explain the within-chapter variance in members' social dominance hazing rationale (see Table 4.9). After initially specifying the model for individual-level predictors, all predictors were retained except the class year predictors (see Model 1e of Table 4.9). Controlling for fraternity residential status, and race and ethnicity, an individual's reported class year was not a significant predictor of social dominance hazing rationale.

Upon completion of the initial specification of the individual-level model, analyses were conducted to see if any of the relationships among the individual-level predictors and social dominance hazing rationale varied across the population of chapters. None of the random coefficients for individual-level predictors were found to be statistically significant, and only

Table 4.9.

Social Dominance Hazing Rationale ANCOVA Model Estimates of Fixed Effects with Robust Standard Errors

Student-level Predictor	Model 1a b (S.E.)	Model 1b b (S.E.)	Model 1c b (S.E.)	Model 1d b (S.E.)	Model 1e b (S.E.)
Intercept	2.012*** (0.045)	2.064*** (0.048)	2.115*** (0.038)	2.113*** (0.037)	2.116*** (0.037)
Class year					
Freshman	0.161* (0.057)	0.123 (0.059)	-	-	-
Sophomore	0.061 (0.043)	0.059 (0.043)	-	-	-
Senior	0.033 (0.051)	0.012 (0.050)	-	-	-
Student of color					
Asian	0.214** (0.051)	0.208** (0.051)	0.214** (0.054)	0.206** (0.056)	0.152* (0.055)
Black	0.187 (0.087)	0.189 (0.087)	0.161 (0.091)	0.171 (0.089)	0.103 (0.077)
Hispanic/Latino	0.074 (0.065)	0.071 (0.066)	0.053 (0.059)	0.062 (0.059)	0.036 (0.058)
Multiracial or other	0.138 (0.092)	0.129 (0.091)	0.133 (0.095)	0.126 (0.093)	0.188 (0.093)
Fraternity House Resident		-0.131** (0.033)	-0.152** (0.033)	-0.148** (0.031)	-0.141** (0.026)
Violence			0.026*** (0.006)	0.024*** (0.006)	0.011* (0.005)
Risk-taking			0.054*** (0.008)	0.049*** (0.007)	0.021** (0.007)
Winning			0.015* (0.006)	0.012 (0.006)	0.003 (0.006)
Emotional control				-0.003 (0.005)	-0.012** (0.005)
Self-reliance				0.050*** (0.007)	0.014 (0.008)
Primacy of work				0.008 (0.009)	0.002 (0.007)
Heterosexual presentation					0.039*** (0.006)
Power over women					0.100*** (0.011)
Playboy					0.041*** (0.008)
λ	0.728	0.737	0.755	0.759	0.791

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

Table 4.10.

Chapter-level Coefficients for the Combined Models for Predicting Social Dominance Hazing Rationales with Robust Standard Errors

Chapter-level predictor	Model 3a b (S.E.)	Model 3b b (S.E.)	Model 3c b (S.E.)	Model 3d b (S.E.)	Model 3e b (S.E.)	Model 3f b (S.E.)
Intercept	0.304 (0.616)	0.512 (0.540)	0.392 (0.397)	0.551 (0.435)	0.290 (0.353)	0.562 (0.320)
Violence climate	-0.097* (0.041)	-0.100* (0.039)	-0.106** (0.038)	-0.127** (0.041)	-0.075* (0.035)	-0.071* (0.035)
Risk-taking climate	0.077 (0.042)	0.077 (0.041)	0.079 (0.041)	0.085 (0.054)	0.086* (0.034)	0.089* (0.036)
Winning climate	0.072* (0.035)	0.075* (0.035)	0.078* (0.033)	0.084** (0.030)	0.053 (0.037)	-
Emotional control climate	-0.020 (0.043)	-0.017 (0.037)	-	-	-	-
Self-reliance climate	0.010 (0.062)	-	-	-	-	-
Primacy of work climate	0.029 (0.050)	-	-	-	-	-
Heterosexual presentation climate	0.103** (0.035)	0.102** (0.05)	0.101** (0.035)	0.094* (0.038)	0.072* (0.032)	0.083* (0.033)
Power over women climate	0.079 (0.070)	0.082 (0.070)	0.078 (0.068)	0.074 (0.064)	0.063 (0.067)	0.052 (0.070)
Playboy climate	0.067 (0.043)	0.070 (0.042)	0.072 (0.042)	0.089 (0.050)	0.090 (0.035)	0.116** (0.042)
Private college or university				-0.108 (0.089)	-	-
Canadian college or university				-0.150 (0.135)	-	-
Institution size				<-0.001 (<0.001)	-	-
Chapter with fraternity house					0.030 (0.057)	-
Chapter size					0.003*** (0.001)	0.003*** (0.001)
λ	0.625	0.616	0.612	0.609	0.577	0.582

*$p<0.05$, **$p<0.01$

fixed effects were included in subsequent models. Within the final individual-level model (see Model 1e of Table 4.9), the reliability of the intercept is very reliable, λ = 0.791.

Chapter-level model for social dominance hazing rationale.

Chapter masculine norm climates. An initial model that included all of the chapter masculine norm climate predictors was created after the individual-level model was specified (see Model 3a of Table 4.10). Controlling for the other covariates, the predictors for primacy of work were found to not be significant at an individual-level ($\gamma = 0.002, p > .05$), or at the chapter-level ($\gamma = 0.029, p > .05$). The predictors for self-reliance were also found to not be significant at the individual-level ($\gamma = 0.014, p > .05$), or chapter-level ($\gamma = 0.010, p > .05$), controlling for the other predictors. Because neither of these group-mean centered pairs were statistically significant, the predictors for primacy of work and self-reliance were removed for all subsequent models. While risk-taking climate ($\gamma = 0.077, p > .05$), emotional control climate, ($\gamma = -0.020, p > .05$), power over women climate, ($\gamma = 0.079, p > .05$), and playboy climate, ($\gamma = 0.067, p > .05$) were found to not be statistically significant at the chapter-level, the individual predictors associated with these variables were statistically significant. Therefore, these individual- and chapter-level masculine norm predictors were retained for future models. Because the primacy of work and self-reliance pairs were removed from the model, the individual-level models were re-specified to account for their deletion.

Re-specified individual-level models. A new individual-level model without random coefficients was created that included the race and ethnicity predictors, fraternity residential status, and the traditional masculine norms of violence, risk-taking, winning, emotional control, heterosexual presentation, power of women, and playboy (see Model 1f in Table 4.11). As with previous ANCOVA models, Asian, Native Hawaiian and other Pacific Islander and fraternity

house resident status were found to have statistically significant relationships with social dominance hazing rationale after controlling for other covariates. Thus, all of the individual-level were retained for subsequent models. After reviewing this model, analyses were conducted to see if any of the predictors varied randomly between chapters. None of the random coefficients for any of the predictors were statistically significant. Like previous individual-level models, the reliability of the intercept was very reliable, $\lambda = 0.791$.

Table 4.11.

Re-specified Social Dominance Hazing Rationale ANCOVA Model Estimates of Fixed Effects with Robust Standard Errors

Student-level Predictor	Model 1f b (S.E.)	Model 1g b (S.E.)	Model 1h b (S.E.)
Intercept	2.117*** (0.037)	2.117*** (0.037)	2.117** (0.037)
Student of color			
Asian	0.152* (0.054)	0.151* (0.054)	0.152* (0.054)
Black	0.098 (0.077)	0.097 (0.077)	0.096 (0.076)
Hispanic/Latino	0.035 (0.058)	0.039 (0.057)	0.037 (0.057)
Multiracial or other	0.190 (0.094)	0.186 (0.094)	0.187 (0.094)
Fraternity House Resident	-0.142** (0.027)	-0.143** (0.027)	-0.142** (0.027)
Violence	0.011* (0.005)	0.010 (0.005)	0.011* (0.005)
Risk-taking	0.021** (0.007)	0.021** (0.007)	0.021** (0.007)
Winning	0.003 (0.006)	0.003 (0.006)	-
Emotional control	-0.008 (0.004)	-	-
Heterosexual presentation	0.039*** (0.006)	0.038*** (0.005)	0.039*** (0.005)
Power over women	0.104*** (0.010)	0.103*** (0.010)	0.102*** (0.010)
Playboy	0.043*** (0.008)	0.042*** (0.008)	0.042*** (0.008)
λ	0.791	0.790	0.790

*$p<0.05$, **$p<0.01$, ***$p<0.001$; ┼Specified model after creation initial chapter-level model

Revised masculine norm climate model. Upon re-specifying the individual-level model, the seven remaining chapter masculine norm climate predictors were added to the combined model (see Model 3b in Table 4.10). Individual-level emotional control, $\gamma = -0.008, p > .05$, and emotional control climate ($\gamma = -0.017, p > .05$), were found to not be statistically significant predictors of social dominance hazing rationale. Violence climate ($\gamma = -0.100, p < .05$), winning climate ($\gamma = 0.075, p < .05$), and heterosexual presentation climate ($\gamma =$

$0.102, p < .01$) had statistically significant relationships with the outcome, while all individual-level masculine norm predictors except winning were statistically significant. Because individual-level emotional control was removed from the model, the individual level model needed to be re-specified prior to adding additional chapter-level variables to the model.

Re-specified individual-level models without emotional control. A new individual-level model without random coefficients was created that included the race and ethnicity predictors, fraternity residential status, and the traditional masculine norms of violence, risk-taking, winning, heterosexual presentation, power of women, and playboy (see Model 1g in Table 4.11). After reviewing this model, analyses were conducted to see if any of the predictors varied randomly between chapters. None of the random coefficients for any of the predictors were statistically significant. The reliability of the intercept was very reliable, $\lambda = 0.790$.

Revised chapter masculine climate models without emotional control. The six remaining chapter masculine norm climate predictors were added to the combined model (see Model 3c in Table 4.10). Violence climate ($\gamma = -0.106, p < .05$), winning climate ($\gamma = 0.078, p < .05$), and heterosexual presentation climate ($\gamma = 0.101, p < .01$) had statistically significant relationships with the outcome, while all individual-level masculine norm predictors except winning were statistically significant. All of the individual-level and chapter-level masculine norms were retained for future models.

The institutional context predictors of sector, country of institution, and institutional size were added to the model (see Model 3d in Table 4.10). None of these predictors has statistically significant relationships with social dominance hazing rationale, and all three were removed from subsequent models.

The chapter context predictors of chapter membership size and chapter housing status were added to the model (see Model 3e in Table 4.10). Chapter size was found to be a statistically significant predictor of social dominance hazing rationale ($\gamma = 0.003, p < .001$), while chapter housing status was not ($\gamma = 0.030, p > .05$). In addition, individual-level winning ($\gamma = 0.003, p > .05$) and winning climate ($\gamma = 0.053, p > .05$), were found to not be statistically significant predictors of social dominance hazing rationale. Chapter size was retained for future models, while chapter housing status, winning, and winning climate were removed. Because individual-level winning was removed from the model, the individual level model needed to be re-specified.

Re-specified individual-level model without winning. A new individual-level model without random coefficients was created that included the race and ethnicity predictors, fraternity residential status, and the traditional masculine norms of violence, risk-taking, heterosexual presentation, power of women, and playboy (see Model 1h in Table 4.11). After reviewing this model, analyses were conducted to see if any of the predictors varied randomly between chapters. None of the random coefficients for any of the predictors were statistically significant. The reliability of the intercept was very reliable, $\lambda = 0.790$. Because none of the traditional masculine norm slopes were significant, the model did not support testing the hypothesis that chapter-level investiture socialization moderates the relationships between chapter masculine norm climates and alcohol use. As such, investiture socialization was excluded from future models.

Revised chapter masculine climate model without winning. The five remaining chapter masculine norm climate predictors and chapter size were added to the combined model (see Model 3f in Table 4.10). Violence climate ($\gamma = -0.071, p < .05$), risk-taking climate ($\gamma =$

$0.089, p < .05$), heterosexual presentation climate ($\gamma = 0.083, p < .05$), and playboy climate ($\gamma = 0.116, p < .01$) had statistically significant relationships with the outcome, while all individual-level masculine norm predictors were statistically significant. Chapter size also had a statistically significant relationship with social dominance hazing rationale ($\gamma = 0.003, p < .001$).

Table 4.12.

Coefficients for the Combined Model for Predicting Social Dominance Hazing Rationale

Predictors	λ	τ	b (S.E.)
Intercept	.582	0.026***	0.562 (0.320)
Student-level			
Student of color			
Asian			0.158* (0.053)
Black			0.112 (0.078)
Hispanic/Latino			0.044 (0.057)
Multiracial or other			0.183 (0.092)
Fraternity House Resident			-0.151** (0.026)
Violence			0.011* (0.005)
Risk-taking			0.021** (0.007)
Heterosexual presentation			0.039*** (0.005)
Power over Women			0.102*** (0.010)
Playboy			0.042*** (0.008)
Organization-level			
Violence climate			-0.071* (0.035)
Risk-taking climate			0.089* (0.036)
Heterosexual presentation climate			0.083* (0.033)
Power over Women climate			0.052 (0.070)
Playboy climate			0.116** (0.042)
Chapter size			0.003*** (0.001)

**p<.05, **p<.01, ***p<.001*

Final combined model for social dominance hazing rationale. Table 4.12 details the results of the HLM model for the social dominance hazing rationale. In response to the fourth research question, it was found that risk-taking climate ($\gamma = 0.089, p < .05$), heterosexual presentation climate ($\gamma = 0.083, p < .05$), and playboy climate ($\gamma = 0.116, p < .01$) had statistically significant positive relationships with a member's social dominance hazing rationale.

The more that members of a fraternity chapter collectively reported concerns about being perceived as gay, willingness to take risks, and sexual promiscuity, the more that individual members were predicted to endorse social dominance hazing. Violence climate was found to have a negative relationship with social dominance hazing rationale ($\gamma = -0.071, p < .05$). The more that members of a chapter collectively reported that they viewed violence as remedy for an issue, the less that individual members were predicted to endorse social dominance hazing rationale.

The demographic variables for race and ethnicity and fraternity house residency were found to be statistically significant predictors of alcohol consumption. Asian, Native Hawaiian and Pacific Islander students were predicted to endorse social dominance hazing to greater extent than their peers ($\gamma = 0.158, p < .05$). Fraternity house residents were predicted to endorse social dominance hazing less than their non-resident peers ($\gamma = -0.151, p < .01$). No other demographic predictors retained in the model had statistically significant relationships with the outcome.

All five of the retained individual-level masculine norm variables were statistically significant predictors of a member's alcohol consumption behaviors, controlling for other covariates (see Table 4.12). Individual-level violence ($\gamma = 0.011, p < .05$), risk-taking ($\gamma = 0.021, p < .01$), power over women ($\gamma = 0.102, p < .001$), heterosexual presentation ($\gamma = 0.039, p < .001$), and playboy ($\gamma = 0.042, p < .001$) had positive relationships with social dominance hazing rationale. Individuals who indicated that they conform to any of these masculine norms more than their chapter climates were predicted to have increased endorsement social dominance hazing.

The final model explained 20.54% of the variance within chapters, and 62.85% of the variance between chapters. Though 24.57% of the total variance is accounted for in this model, there is still a statistically significant portion of variance that can be explained by the inclusion of other predictors ($X^2 = 184.330, df = 69, p < .001$).

Solidarity Hazing Rationale Models

Individual-level predictors. One-way ANCOVA with random effects models were constructed with fixed individual-level predictors entered in blocks as outlined in Chapter III to explain the within chapter variance of members' solidarity hazing rationale (see Table 4.13). After initially specifying the model for individual-level predictors, all predictors were retained except the race and ethnicity predictors and the fraternity house residency status variable (see Model 1e of Table 4.13). Controlling for class year, an individual's reported race and ethnicity was not a significant predictor of solidarity hazing rationale. Controlling for class year, an individual's fraternity residency status was not a significant predictor of solidarity hazing rationale.

Upon completion of the initial specification of the individual-level model, analyses were conducted to examine if any individual-level slopes varied significantly across the population of chapters prior to the inclusion of chapter-level predictors. In the final individual-level specified model prior to adding chapter-level variables, freshman student class level varied significantly between chapters. The unconditional variability of individual-level winning masculine norm slope is 0.001, $p < 0.01$. In other words, the relationship between individual conformity to the norm of winning above one's chapter climate and one's endorsement of solidarity hazing rationale varies significantly across the population of chapters. None of the other relationships among the predictors and the outcome were found to vary significantly across the population.

Table 4.13.

Solidarity Hazing Rationale ANCOVA Model Estimates of Fixed Effects with Robust Standard Errors

Student-level Predictor	Model 1a b (S.E.)	Model 1b b (S.E.)	Model 1c b (S.E.)	Model 1d b (S.E.)	Model 1e b (S.E.)	Model 1f† b (S.E.)
Intercept	4.050*** (0.030)	4.044*** (0.033)	4.050*** (0.029)	4.051*** (0.030)	4.050*** (0.030)	4.050*** (0.030)
Class year						
Freshman	0.207** (0.038)	0.203** (0.040)	0.210** (0.038)	0.194** (0.039)	0.199** (0.040)	0.199** (0.039)
Sophomore	0.068 (0.036)	0.069 (0.037)	0.067 (0.036)	0.063 (0.036)	0.063 (0.036)	0.063 (0.036)
Senior	-0.078 (0.036)	-0.078 (0.035)	-0.082* (0.035)	-0.083* (0.033)	-0.080* (0.032)	-0.081* (0.032)
Student of color						
Asian	-0.091 (0.055)	-	-	-	-	-
Black	0.020 (0.088)	-	-	-	-	-
Hispanic/Latino	0.092 (0.052)	-	-	-	-	-
Multiracial or other	-0.122 (0.087)	-	-	-	-	-
Fraternity House Resident		0.007 (0.029)	-	-	-	-
Violence			-0.004 (0.004)	0.002 (0.004)	0.005 (0.004)	-
Risk-taking			0.011 (0.007)	0.013 (0.007)	0.022** (0.007)	0.022*** (0.006)
Winning			0.024*** (0.006)	0.025*** (0.005)	0.023*** (0.005)	0.024*** (0.005)
Emotional control				-0.015*** (0.004)	-0.015*** (0.004)	-0.014*** (0.004)
Self-reliance				-0.029*** (0.006)	-0.018** (0.006)	-0.018** (0.006)
Primacy of work				0.025*** (0.006)	0.027*** (0.006)	0.026*** (0.006)
Heterosexual presentation					0.007 (0.004)	0.007* (0.004)

Power over women					-0.049*** (0.008)	-0.048*** (0.008)
Playboy					-0.005 (0.006)	-
λ	0.606	0.610	0.611	0.626	0.634	0.634

*$p<0.05$, **$p<0.01$, ***$p<0.001$; [+]Specified model after creation initial chapter-level model

Table 4.14.

Chapter-level Coefficients for the Combined Models for Predicting Solidarity Hazing Rationale with Robust Standard Errors

Chapter-level predictor	Model 3a b (S.E.)	Model 3b b (S.E.)	Model 3c b (S.E.)	Model 3d b (S.E.)	Model 3e b (S.E.)
Intercept	2.846*** (0.649)	2.864*** (0.633)	2.943*** (0.648)	2.930*** (0.618)	2.932*** (0.616)
Violence climate	0.005 (0.040)	-	-	-	-
Risk-taking climate	0.114* (0.053)	0.122* (0.054)	0.116* (0.054)	0.112* (0.051)	0.112* (0.050)
Winning climate	-0.008 (0.028)	-0.004 (0.026)	-0.002 (0.026)	-0.008 (0.027)	-0.008 (0.026)
Emotional control climate	-0.034 (0.034)	-0.033 (0.033)	-0.040 (0.034)	-0.034 (0.032)	-0.034 (0.032)
Self-reliance climate	-0.023 (0.039)	-0.022 (0.037)	-0.018 (0.044)	-0.028 (0.038)	-0.028 (0.038)
Primacy of work climate	0.0070 (0.065)	0.070 (0.061)	0.069 (0.061)	0.083 (0.062)	0.083 (0.062)
Heterosexual presentation climate	0.061 (0.036)	0.058 (0.033)	0.061 (0.037)	0.057 (0.034)	0.057 (0.033)
Power over women climate	-0.056 (0.071)	-0.048 (0.062)	-0.045 (0.066)	-0.024 (0.062)	-0.024 (0.062)
Playboy climate	0.017 (0.041)	-	-	-	-
Private college or university			-0.034 (0.072)	-	-
Canadian college or university			0.077 (0.089)	-	-
Institution size			<-0.001 (<0.001)	-	-
Chapter with fraternity house				-0.090* (0.043)	-0.090* (0.043)
Chapter size				<0.001 (0.001)	-
λ	0.599	0.585	0.597	0.585	0.578

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

Within this model, the reliability of the intercept is quite reliable, λ = .640. The reliabilities of the winning slope (.315) is less reliable, but exceeds the Raudenbush and Bryk (2002) recommendation for fixing these slopes.

Chapter-level model for solidarity hazing rationale.

Chapter masculine norm climates. An initial model that included all of the chapter masculine norm climate predictors was created after the individual-level model was specified (see Model 3a of Table 4.14). Controlling for the other covariates, the predictors for violence ($\gamma = 0.004, p > .05$) and playboy ($\gamma =< 0.001, p > .05$) were found to not be significant at an individual-level, or at the chapter-level (violence, $\gamma = 0.005, p > .05$; playboy, $\gamma = 0.017, p > .05$. Because neither of these group mean centered pairs were statistically significant, the predictors for violence and playboy were removed from both levels for all subsequent models. Only risk-taking climate ($\gamma = 0.114, p < .05$) was found to have a statistically significant relationship with solidarity hazing rationale. However, the individual-level predictors for the six other masculine norms were found to be statistically significant, and the accompanying norm climate variables were retained for future models. Because the violence and playboy group-mean centered pairs were removed from the model, the individual-level models were re-specified to account for their deletion

Re-specified individual-level models. A new individual-level model without random coefficients was created that included class year status, and the traditional masculine norms of risk-taking, winning, emotional control, self-reliance, primacy of work, heterosexual presentation, and power of women (see Model 1f in Table 4.13). After reviewing this model, analyses were conducted to see if any of the predictors varied randomly between chapters. As with previous individual-level models, the relationship between winning and solidarity hazing

rationale varied significantly among the population of chapters. The unconditional variability of winning student slope was 0.001, $p < 0.01$. The relationships among the predictors and the outcome did not vary randomly at statistically significant levels among the population of chapters. Because the variability of the winning slope was found to be statistically significant, the model supported testing the hypothesis that chapter-level investiture socialization moderates the relationships between individual-level winning and solidarity hazing rationale. As such, investiture socialization was added to future models after the full analysis of the relationships among chapter masculine norm climates and the outcome. The reliabilities for the intercept (.640) and winning slope (0.315) exceeded the standards to fix the slopes (Raudenbush & Bryk, 2002).

Revised masculine norm climate model. Upon re-specifying the individual-level model, the seven remaining chapter masculine norm climate predictors were added to the combined model (see Model 3b in Table 4.14). Of the masculine norm climate variables, only risk-taking climate ($\gamma = 0.122, p < .05$) had a statistically significant relationship with solidarity hazing rationale, while all individual-level masculine norm predictors were statistically significant predictors of this outcome. All of the individual-level and chapter-level masculine norms were retained for future models.

The institutional context predictors of sector, country of institution, and institutional size were added to the model (see Model 3c in Table 4.14). None of these predictors has statistically significant relationships with solidarity hazing rationale, and all three were removed from subsequent models.

The chapter context predictors of chapter membership size and chapter housing status were added to the model (see Model 3d in Table 4.14). Chapter housing status was found to be a

statistically significant predictor of social dominance hazing rationale ($\gamma = -0.090, p < .05$), while chapter size was not ($\gamma =< 0.001, p > .05$). Risk-taking climate ($\gamma = 0.112, p < .05$) continued to have a statistically significant relationship with the outcome, and all individual-level masculine norm predictors were statistically significant. A final model was created that retained chapter housing status and the individual- and chapter-level masculine norms from Model 3d (see Model 3e in Table 4.14). Risk-taking climate and chapter housing status continued to be statistically significant predictors of members' solidarity hazing rationale.

Table 4.15.

Specified Coefficients for the Final Model for Predicting Solidarity Hazing Rationale

Predictors	λ	τ	b (S.E.)
Intercept	0.578	0.018***	2.93*** (0.62)
Student-level			
Class year			
Freshman			0.197** (0.040)
Sophomore			0.064 (0.035)
Senior			-0.073 (0.032)
Risk-taking			0.023*** (0.006)
Winning	0.313	0.001**	0.023*** (0.005)
Emotional control			-0.015*** (0.004)
Self-reliance			-0.016** (0.006)
Primacy of work			0.027*** (0.006)
Heterosexual presentation			0.008* (0.004)
Power over women			-0.049*** (0.008)
Chapter-level			
Risk-taking climate			0.112* (0.050)
Winning climate			-0.008 (0.026)
Emotional control climate			-0.034 (0.032)
Self-reliance climate			-0.028 (0.038)
Primacy of work climate			0.083 (0.062)
Heterosexual presentation climate			0.057 (0.033)
Power over women climate			-0.024 (0.062)
Chapter with fraternity house			-0.090* (0.043)

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

Combined model for solidarity hazing rationale without investiture socialization. Table 4.15 details the results of the combined model for solidarity hazing rationale. In response to the fourth question, it was found that risk-taking climate ($\gamma = 0.112, p < .05$) had a statistically significant positive relationship with a member's solidarity hazing rationale. The more that members of a fraternity chapter collectively reported their willingness to take risks, the more that individual members were predicted to endorse solidarity hazing rationale.

Freshman class level was found to be statistically significant predictor of a member's endorsement of solidarity hazing ($\gamma = 0.197, p < .01$). In other words, controlling for the other predictors, freshmen were predicted to endorse solidarity hazing more than their peers. No other class year status variable was found to have a statistically significant relationship with the outcome.

All seven of the retained individual-level masculine norm variables were statistically significant predictors of a member's endorsement of solidarity hazing, controlling for other covariates (see Table 4.15). Risk-taking ($\gamma = 0.023, p < .001$), winning ($\gamma = 0.023, p < .001$), primacy of work ($\gamma = 0.027, p < .001$) and heterosexual presentation ($\gamma = 0.008, p < .05$) had positive relationships with solidarity hazing rationale, while emotional control ($\gamma = -0.015, p < .001$), self-reliance ($\gamma = -0.016, p < .01$) and power over women ($\gamma = -0.049, p < .001$) had negative relationships with this outcome. Individuals who indicated that they conform to the masculine norms of risk-taking, winning, primacy of work, or heterosexual presentation more than their chapter climates were predicted to have increased endorsement of solidarity hazing rationale. Individuals who indicated that they conform to the masculine norms of emotional control, self-reliance, or power over women more than their chapter climates for these norms were predicted to have decreased endorsement for solidarity hazing rationale.

Of the chapter-level contextual variables, only membership in a chapter with a fraternity house was found to be predictor of a member's endorsement of solidarity hazing ($\gamma = -0.090, p < .05$). Members of these chapters are predictors to endorse solidarity hazing less than their peers that are members of chapters without fraternity houses.

This combined model explained 9.23% of the variance within chapters, and 26.10% of the variance between chapters. Only 10.16% of the total variance is accounted for in this model, and there is still a statistically significant portion of variance that can be explained by the inclusion of other predictors ($X^2 = 179.495, df = 69, p < .001$).

Loyalty Hazing Rationale Models

Individual-level predictors. One-way ANCOVA with random effects models were constructed with fixed individual-level predictors entered in blocks as outlined in Chapter III to explain the within-chapter variance of member's loyalty hazing rationale (see Table 4.16). After initially specifying the model for individual-level predictors, all predictors were retained except the race and ethnicity predictors and the fraternity house residency status variable (see Model 1e of Table 4.16). Controlling for class year, an individual's reported race and ethnicity was not a significant predictor of solidarity hazing rationale. Controlling for class year, an individual's fraternity residency status was not a significant predictor of solidarity hazing rationale.

Upon completion of the initial specification of the individual-level model, analyses were conducted to examine if any individual-level slopes varied significantly across the population of chapters prior to the inclusion of chapter-level predictors. In the final individual-level specified model prior to adding chapter-level variables, the winning slope varied significantly between chapters. The unconditional variability of individual-level winning masculine norm slope is 0.001, p<.05. In other words, the relationship between individual conformity to the norm of

Table 4.16.

Loyalty Hazing Rationale ANCOVA Model Estimates of Fixed Effects with Robust Standard Errors

Student-level Predictor	Model 1a b (S.E.)	Model 1b b (S.E.)	Model 1c b (S.E.)	Model 1d b (S.E.)	Model 1e b (S.E.)	Model 1f┼ b (S.E.)
Intercept	3.355*** (0.039)	3.379*** (0.042)	3.367*** (0.040)	3.366*** (0.040)	3.370*** (0.039)	3.369*** (0.039)
Class year						
Freshman	0.158** (0.046)	0.148** (0.047)	0.162** (0.046)	0.161** (0.046)	0.143** (0.044)	0.144** (0.044)
Sophomore	0.074 (0.036)	0.073 (0.036)	0.073 (0.037)	0.072 (0.037)	0.070 (0.036)	0.070 (0.036)
Senior	-0.030 (0.038)	-0.038 (0.039)	-0.037 (0.037)	-0.035 (0.037)	-0.031 (0.037)	-0.029 (0.037)
Student of color			-	-	-	-
Asian	-0.071 (0.049)	-	-	-	-	-
Black	0.056 (0.074)	-	-	-	-	-
Hispanic/Latino	0.032 (0.050)	-	-	-	-	-
Multiracial or other	0.008 (0.076)	-	-	-	-	-
Frat. House Res.		-0.031 (0.029)	-	-	-	-
Violence			0.001 (0.004)	0.003 (0.004)	-0.001 (0.004)	-
Risk-taking			0.032*** (0.006)	0.033*** (0.006)	0.027*** (0.007)	0.028*** (0.006)
Winning			0.036*** (0.005)	0.037*** (0.005)	0.032*** (0.006)	0.032*** (0.005)
Emotional control				-0.013** (0.004)	-0.016*** (0.004)	-0.017*** (0.004)
Self-reliance				0.002 (0.007)	-0.006 (0.006)	-
Primacy of work				0.003 (0.006)	0.001 (0.006)	-
Het. presentation					0.022*** (0.005)	0.021*** (0.005)
Power over women					0.018* (0.009)	0.019* (0.009)
Playboy					0.008 (0.007)	-
λ	0.729	0.728	0.739	0.740	0.746	0.746

*$p<0.05$, **$p<0.01$, ***$p<0.001$; ┼Specified model after creation initial chapter-level model

Table 4.17.

Chapter-level Coefficients for the Combined Models for Predicting Loyalty Hazing Rationale with Robust Standard Errors

Chapter-level predictor	Model 3a b (S.E.)	Model 3b b (S.E.)	Model 3c b (S.E.)	Model 3d b (S.E.)
Intercept	1.864** (0.53)	2.188** (0.618)	2.221** (0.612)	2.326*** (0.599)
Violence climate	-0.065 (0.033)	-	-	-
Risk-taking climate	0.119* (0.055)	0.110 (0.061)	0.103 (0.059)	0.103 (0.061)
Winning climate	0.028 (0.027)	0.038 (0.029)	0.037 (0.030)	0.032 (0.029)
Emotional control climate	-0.016 (0.039)	-0.053 (0.040)	-0.052 (0.041)	-0.054 (0.038)
Self-reliance climate	-0.006 (0.042)	-	-	-
Primacy of work climate	0.048 (0.050)	-	-	-
Heterosexual presentation climate	0.080* (0.033)	0.052 (0.033)	0.059 (0.034)	0.043 (0.035)
Power over women climate	-0.029 (0.058)	0.011 (0.055)	0.002 (0.059)	0.037 (0.057)
Playboy climate	0.065 (0.034)	-	-	-
Private college or university			-0.037 (0.069)	-
Canadian college or university			0.102 (0.066)	-
Institution size			<0.001 (<0.001)	-
Chapter with fraternity house				-0.094 (0.051)
Chapter size				0.001 (0.001)
λ	0.670	0.680	0.683	0.671

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

winning above one's chapter climate and one's endorsement of loyalty hazing rationale varies significantly across the population of chapters. In addition, the power over women slope varied significantly between chapters. The unconditional variability of individual-level winning masculine norm slope is 0.002, p<.001. In other words, the relationship between individual conformity to the norm of power over women above one's chapter climate and one's endorsement of loyalty hazing rationale varies significantly across the population of chapters. Within this model, the reliability of the intercept is quite reliable, λ = .752. The reliabilities of the winning slope (.261) and power over women slope (.375) are less reliable, but exceed the Raudenbush and Bryk (2002) recommendation for fixing these slopes.

Chapter-level model for loyalty hazing rationale.

Chapter masculine norm climates. An initial model that included all of the chapter masculine norm climate predictors was created after the individual-level model was specified (see Model 3a of Table 4.17). Controlling for the other covariates, the predictors for violence ($\gamma =< -0.002, p > .05$), self-reliance ($\gamma = -0.006, p > .05$), primacy of work ($\gamma = 0.002, p >$ .05), and playboy ($\gamma = 0.009, p > .05$) were found to not be significant at an individual-level, or at the chapter-level (violence, $\gamma = -0.065, p > .05$; self-reliance, $\gamma = -0.006, p > .05$; primacy of work, $\gamma = 0.048, p > .05$; playboy, $\gamma = 0.064, p > .05$). Because these group mean centered pairs were not statistically significant, the predictors for violence, self-reliance, primacy of work, and playboy were removed from both levels for all subsequent models. Risk-taking climate ($\gamma = 0.119, p < .05$) and heterosexual presentation climate ($\gamma = 0.08{,}0\ p < .05$) were found to be statistically significant. The individual-level predictors for the winning, emotional control, and power over women masculine norms were found to be statistically significant, and the accompanying norm climate variables were retained for future models. Because the group-

mean centered pairs for violence, self-reliance, primacy of work, and playboy were removed from the model, the individual-level models were re-specified to account for their deletion.

Re-specified individual-level models. A new individual-level model without random coefficients was created that included class year status, and the traditional masculine norms of risk-taking, winning, emotional control, heterosexual presentation, and power of women (see Model 1f in Table 4.16). As with previous ANCOVA models, the freshman and sophomore class year predictors and Asian, Native Hawaiian and other Pacific Islander were found to have statistically significant relationships with alcohol consumption after controlling for other covariates. Thus, all of the individual-level were retained for subsequent models. After reviewing this model, analyses were conducted to see if any of the predictors varied randomly between chapters. As with previous individual-level models, the relationships between winning and solidarity hazing rationale, and power over women and solidarity hazing rationale varied significantly among the population of chapters. The unconditional variability of the winning student slope was <0.001, $p < 0.05$, and the unconditional variability of the power over women slope was 0.002, $p < 0.001$. The relationships among the predictors and the outcome did not vary randomly at statistically significant levels among the population of chapters. Because the variability of the winning and power over women slopes were found to be statistically significant, the model supported testing the hypothesis that chapter-level investiture socialization moderates the relationships between individual-level winning and solidarity hazing rationale, and individual-level power over women and solidarity hazing rationale. As such, investiture socialization was added to future models after the full analysis of the relationships among chapter masculine norm climates and the outcome. The reliabilities for the intercept (.752),

winning slope (0.252), and power over women slope (0.372) exceeded the standards to fix the slopes (Raudenbush & Bryk, 2002).

Revised masculine norm climate model. Upon re-specifying the individual-level model, the five remaining chapter masculine norm climate predictors were added to the combined model (see Model 3b in Table 4.17). None of masculine norm climates had statistically significant relationships with solidarity hazing rationale, while all individual-level masculine norm predictors were statistically significant predictors of this outcome. All of the individual-level and chapter-level masculine norms were retained for future models.

The institutional context predictors of sector, country of institution, and institutional size were added to the model (see Model 3c in Table 4.17). None of these predictors has statistically significant relationships with solidarity hazing rationale, and all three were removed from subsequent models.

The chapter context predictors of chapter membership size and chapter housing status were added to the model (see Model 3d in Table 4.17). Neither of these predictors has statistically significant relationships with solidarity hazing rationale, and both were removed from subsequent models. Therefore, the model without any contextual variables was retained as the final model (see Model 3b in Table 4.17).

Combined model for loyalty hazing rationale without investiture socialization. Table 4.18 details the results of the combined model for loyalty hazing rationale. In response to the fourth research question, none of the climate predictors had statistically significant relationships with the outcome.

Freshman class level was found to be a statistically significant predictor of a member's endorsement of loyalty hazing ($\gamma = 0.143, p < .01$). In other words, controlling for the other

predictors, freshmen were predicted to endorse loyalty hazing more than their peers. No other class year status variable was found to have a statistically significant relationship with the outcome.

Table 4.18.

Specified Coefficients for the Final Model for Predicting Loyalty Hazing Rationale

Predictors	λ	τ	b (S.E.)
Intercept	0.680	0.029***	2.188** (0.618)
Student-level			
Class year			
Freshman			0.143** (0.042)
Sophomore			0.070 (0.035)
Senior			-0.018 (0.035)
Risk-taking			0.029*** (0.006)
Winning	0.262	0.001**	0.033*** (0.005)
Emotional control			-0.018*** (0.004)
Heterosexual presentation			0.021*** (0.004)
Power over women	0.376	0.002***	0.023** (0.008)
Chapter-level			
Risk-taking climate			0.110 (0.061)
Winning climate			0.038 (0.029)
Emotional control climate			-0.053 (0.040)
Heterosexual presentation climate			0.052 (0.033)
Power over women climate			0.011 (0.055)

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

All five of the retained individual-level masculine norm variables were statistically significant predictors of a member's endorsement of loyalty hazing, controlling for other covariates (see Table 4.18). Risk-taking ($\gamma = 0.029, p < .001$), winning ($\gamma = 0.033, p < .001$), heterosexual presentation ($\gamma = 0.021, p < .001$), and power over women ($\gamma = 0.023, p < .01$), had positive relationships with solidarity rationale, while emotional control ($\gamma = -0.018, p < .001$), had a negative relationship with this outcome. Individuals who indicated that they conform to the masculine norms of risk-taking, winning, heterosexual presentation or power over women more than their chapter climates were predicted to have increased endorsement of loyalty

hazing. Individuals who indicated that they conform to the masculine norms of emotional control more than their chapter climates for this norm were predicted to have decreased endorsement for loyalty hazing.

Though members who indicated that they conform to the masculine norms of winning or power over women more than their chapter climates were predicted to have increased loyalty hazing rationale scores, the relationship between these predictors and the outcome varied significantly among the population of chapters. The winning slope was found to be statistically significant ($\tau = 0.001, p < .05$), and the power over women slope was found to be statistically significant, too ($\tau = 0.002, p < .001$).

This combined model explained 10.53% of the variance within chapters, and 34.54% of the variance between chapters. Only 12.85% of the total variance is accounted for in this model, and there is still a statistically significant portion of variance that can be explained by the inclusion of other predictors ($X^2 = 251.748, df = 70, p < .001$).

Instrumental Educational Hazing Rationale Models

Individual-level predictors. One-way ANCOVA with random effects models were constructed with fixed individual-level predictors entered in blocks as outlined in Chapter III to explain the within-chapter variance for member's instrumental hazing rationale models (see Table 4.19). After initially specifying the model for individual-level predictors, all predictors were retained except the race and ethnicity, and fraternity house residence status predictors (see Model 1e of Table 4.19). Controlling for class year status, an individual's reported race and ethnicity was not a significant predictor of instrumental education hazing rationale. Controlling for class year status, an individual's fraternity house residence status was not a significant predictor of instrumental education hazing rationale.

Table 4.19.

Instrumental Education Hazing Rationale ANCOVA Model Estimates of Fixed Effects with Robust Standard Errors

Student-level Predictor	Model 1a b (S.E.)	Model 1b b (S.E.)	Model 1c b (S.E.)	Model 1d b (S.E.)	Model 1e b (S.E.)	Model 1f† b (S.E.)
Intercept	4.154*** (0.028)	4.133*** (0.032)	4.149*** (0.027)	4.153*** (0.028)	4.151*** (0.028)	4.151*** (0.028)
Class year						
Freshman	0.110** (0.033)	0.115** (0.036)	0.106** (0.033)	0.097* (0.034)	0.106** (0.033)	0.108** (0.034)
Sophomore	0.035 (0.032)	0.035 (0.032)	0.033 (0.031)	0.029 (0.030)	0.030 (0.030)	0.031 (0.030)
Senior	-0.022 (0.036)	-0.018 (0.035)	-0.028 (0.035)	-0.030 (0.034)	-0.027 (0.033)	-0.029 (0.033)
Student of color						
Asian	-0.115 (0.047)	-	-	-	-	-
Black	0.032 (0.078)	-	-	-	-	-
Hispanic/Latino	0.056 (0.040)	-	-	-	-	-
Multiracial or other	-0.111 (0.085)	-	-	-	-	-
Fraternity House Resident		0.037 (0.030)	-	-	-	-
Violence			-0.009* (0.003)	-0.003 (0.003)	<-0.001 (0.003)	-
Risk-taking			0.002 (0.007)	0.004 (0.006)	0.015* (0.007)	0.013 (0.007)
Winning			0.021*** (0.004)	0.023*** (0.004)	0.022*** (0.004)	0.023*** (0.004)
Emotional control				-0.012** (0.004)	-0.011** (0.004)	-0.011** (0.004)
Self-reliance				-0.036*** (0.006)	-0.024*** (0.006)	-0.025*** (0.006)
Primacy of work				0.015* (0.006)	0.017** (0.006)	0.017** (0.006)
Het. presentation					0.003 (0.004)	-
Power over women					-0.047*** (0.008)	-0.048*** (0.007)
Playboy					-0.009 (0.005)	-

λ	0.611	0.622	0.617	0.629	0.639	0.640

*$p<0.05$, **$p<0.01$, ***$p<0.001$; [†]Specified model after creation initial chapter-level model

Table 4.20.
Chapter-level Coefficients for the Combined Models for Predicting Instrumental Education Hazing Rationale with Robust Standard Errors

Chapter-level predictor	Model 3a b (S.E.)	Model 3b b (S.E.)	Model 3c b (S.E.)	Model 3d b (S.E.)	Model 3e b (S.E)	Model 3f b (S.E.)
Intercept	3.553*** (0.534)	3.790*** (0.573)	3.776*** (0.576)	3.887*** (0.572)	3.926*** (0.537)	3.913 (0.543)
Violence climate	0.055 (0.036)	-	-	-	-	-
Risk-taking climate	0.092 (0.046)	0.103* (0.041)	0.104* (0.042)	0.100* (0.043)	0.081* (0.036)	0.083* (0.037)
Winning climate	-0.041 (0.021)	-0.027 (0.018)	-0.026 (0.018)	-0.022 (0.018)	-0.014 (0.021)	-0.012 (0.020)
Emotional control climate	0.027 (0.040)	0.036 (0.041)	0.041 (0.042)	0.043 (0.041)	0.032 (0.036)	0.031 (0.037)
Self-reliance climate	-0.064 (0.043)	-0.037 (0.041)	-0.038 (0.042)	-0.053 (0.043)	-0.046 (0.043)	-0.044 (0.042)
Primacy of work climate	0.023 (0.044)	-0.001 (0.044)	-0.004 (0.045)	0.006 (0.044)	0.002 (0.045)	-0.004 (0.045)
Heterosexual presentation climate	0.018 (0.028)	-	-	-	-	-
Power over women climate	-0.082 (0.058)	-0.060 (0.039)	-0.064 (0.039)	-0.070 (0.039)	-0.029 (0.042)	-0.036 (0.040)
Playboy climate	-0.013 (0.035)	-	-	-	-	-
Private college or university				-0.131 (0.066)	-	-
Canadian college or university				0.003 (0.081)	-	-
Institution size				<-0.001 (<0.001)	-	-
Chapter with fraternity house					-0.039 (0.046)	-
Chapter size					-0.002* (0.001)	-0.002** (0.001)
λ	0.603	0.611	0.606	0.598	0.579	0.575

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

Upon completion of the initial specification of the individual-level model, analyses were conducted to see if any of the relationships among the individual-level predictors and instrumental education hazing rationale varied across the population of chapters. The relationship between risk-taking and instrumental education hazing rationale ($\tau = 0.001, p < 0.05$) varied significantly across the population of chapters. The random coefficients for other individual-level predictors were found to not be statistically significant. Only the risk-taking slope was allowed to vary randomly in subsequent models. Within the final individual-level model (see Model 1e of Table 4.19), the reliabilities of the intercept (λ = 0.644) and risk-taking slope (λ = 0.363) exceeded the standards to fix the slopes (Raudenbush & Bryk, 2002).

Chapter-level model for instrumental education hazing rationale.

Chapter masculine norm climates. An initial model that included all of the chapter masculine norm climate predictors was created after the individual-level model was specified (see Model 3a of Table 4.20). Controlling for the other covariates, the predictors for violence ($\gamma =< -0.001, p > .05$), heterosexual presentation ($\gamma = 0.003, p > .05$), and playboy ($\gamma = -0.009, p > .05$) were found to not be significant at an individual-level, or at the chapter-level (violence climate, $\gamma = 0.055, p > .05$; heterosexual presentation climate, $\gamma = 0.018, p > .05$; playboy climate, $\gamma = -0.013, p > .05$). Because these group mean centered pairs were not statistically significant, the predictors for violence, heterosexual presentation and playboy were removed for all subsequent models. While none of the masculine norm climates were found to be statistically significant predictors of instrumental education hazing, the individual predictors associated with these variables were statistically significant. Therefore, the individual and chapter masculine norm predictors for risk-taking, winning, emotional control, self-reliance, primacy of work, and power over women were retained for future models. Because the violence,

heterosexual presentation and playboy pairs were removed from the model, the individual-level models were re-specified to account for their deletion.

Re-specified individual-level models. A new individual-level model without random coefficients was created that included the class year status predictors, and the traditional masculine norms of risk-taking, winning, emotional control, self-reliance, primacy of work, and power over women (see Model 1f in Table 4.19). As with previous ANCOVA models, the freshman class year predictor was found to have a statistically significant relationship with alcohol consumption after controlling for other covariates. Thus, all of the individual-level were retained for subsequent models. After reviewing this model, analyses were conducted to see if any of the predictors varied randomly between chapters. As with earlier random coefficient models, the relationship between risk-taking and instrumental education hazing rationale ($\tau = 0.012, p < 0.01$) varied significantly across the population of chapters. Within the final revised individual-level model with random coefficients, the reliabilities of the intercept (λ = 0.645) and risk-taking slope (λ = 0.363) exceeded the standards to fix the slopes (Raudenbush & Bryk, 2002).

Revised chapter masculine climate models. After specifying the individual-level model, the six remaining chapter masculine norm climate predictors were added to the combined model (see Model 3b in Table 4.20). Risk-taking climate ($\gamma = 0.103, p < .05$) had a statistically significant relationship with the outcome, while all individual-level masculine norm predictors except risk-taking ($\gamma = 0.013, p > .05$) were statistically significant. Because the individual-level risk-taking variable was not a statistically significant predictor of the outcome, the random coefficient was fixed. All of the individual-level and chapter-level masculine norms were retained for future models.

Because individual-level risk-taking was fixed, a new combined model was created with the retained group-mean centered masculine norms (see Model 3c in Table 4.20). Risk-taking climate ($\gamma = 0.104, p < .05$) had a statistically significant relationship with the outcome, while all individual-level masculine norm predictors except risk-taking ($\gamma = 0.013, p > .05$) were statistically significant. All of the predictors were retained for future models.

The institutional context predictors of sector, country of institution, and institutional size were added to the model (see Model 3d in Table 4.20). None of these predictors has statistically significant relationships with instrumental education hazing rationale, and all three were removed from subsequent models.

The chapter context predictors of chapter membership size and chapter housing status were added to the model (see Model 3e in Table 4.20). Chapter size was found to be a statistically significant predictor of instrumental education hazing rationale ($\gamma = 0.002, p < .05$), while chapter housing status was not ($\gamma = -0.039, p > .05$. Chapter housing status was removed from the final model.

Final Combined Model for Instrumental Education Hazing Rationale. Table 4.21 details the results of the HLM model for instrumental education hazing rationale. In response to the fourth research question, it was found that risk-taking climate ($\gamma = 0.083, p < .05$) had a statistically significant positive relationship with the outcome. The more that members of a fraternity chapter collectively reported being willing to take risks, the more that individual members were predicted to endorse instrumental education hazing rationale. No other climate predictor had a statistically significant relationship with instrumental education hazing rationale.

Controlling for other variables, freshmen were predicted to endorse instrumental education hazing to greater extent than their peers ($\gamma = 0.118, p < .01$). No other demographic predictors retained in the model had statistically significant relationships with the outcome.

Table 4.21.

Specified Coefficients for the Final Model for Predicting Instrumental Education Hazing Rationale

Predictors	λ	τ	b (S.E.)
Intercept	0.58	0.015***	3.913*** (0.543)
Student-level			
Class year			
Freshman			0.118** (0.034)
Sophomore			0.035 (0.034)
Senior			-0.032 (0.033)
Risk-taking			0.013 (0.006)
Winning			0.023*** (0.004)
Emotional control			-0.011** (0.004)
Self-reliance			-0.025*** (0.006)
Primacy of work			-0.017** (0.006)
Power over women			-0.048*** (0.007)
Chapter-level			
Risk-taking climate			0.083* (0.037)
Winning climate			-0.012 (0.020)
Emotional control climate			0.031 (0.037)
Self-reliance climate			-0.044 (0.042)
Primacy of work			-0.004 (0.045)
Power over women climate			-0.036 (0.040)
Chapter size			-0.002** (0.001)

**p<.05, **p<.01, ***p<.001*

With the exception of risk-taking, the retained individual-level masculine norm variables were statistically significant predictors of a member's endorsement of instrumental education hazing, controlling for other covariates (see Table 4.21). Winning ($\gamma = 0.023, p < .001$) had a positive relationship with instrumental education hazing rationale, while emotional control ($\gamma = -0.011, p < .01$), self-reliance ($\gamma = -0.025, p < .001$), primacy of work ($\gamma = -0.017, p < .01$), and power over women ($\gamma = -0.048, p < .001$) were found to have negative relationships

with this outcome. Individuals who indicated that they conform to the masculine norms of winning more than their chapter climates were predicted to have increased endorsement of instrumental education hazing. Individuals who indicated that they conform to the masculine norms of emotional control, self-reliance, primacy of work, or power over women more than their chapters' violence climates were predicted to be less supportive of the instrumental education hazing rationale.

The final model explained 7.57% of the variance within chapters, and 16.36% of the variance between chapters. Only 8.05% of the total variance is accounted for in this model, and there is still a statistically significant portion of variance that can be explained by the inclusion of other predictors ($X^2 = 180.280, df = 68, p < .001$).

Fourth Research Question Summary

The fourth research question examined the relationships among chapter masculine norm climates and members' alcohol consumption behaviors and their endorsement of hazing rationales. With the exception of loyalty hazing rationale, chapter masculine norm climates explained some of the variance between chapters for these outcomes. Heterosexual presentation climate was a statistically significant predictor of a member's alcohol consumption behaviors, and risk-taking climate was the only masculine norm climate related to a member's endorsement of instrumental education and solidarity hazing rationales. Risk-taking, heterosexual presentation and playboy climates were found to be positively related to a member's social dominance hazing rationale, while violence climate was negatively related to this outcome. The implications of these findings are explored in Chapter V.

Because the winning slope in the solidarity hazing rationale models, and the winning and power over women slopes in the loyalty hazing rationale models varied randomly, the following

section examines if investiture socialization climate moderates the relationships between these norm climates and the outcomes across the population of chapters.

Research Question Five: Investiture Socialization Climate as a Cross-level Moderator

The fifth research question examined if investiture socialization climate moderates the relationships between any individual-level masculine norm conformity and the outcomes that vary across the population of chapters. Investiture socialization was added to the solidarity hazing rationale and loyalty hazing rationale models as a cross-level moderator for three individual-level masculine norm slopes. A reduced sample of 2,648 participants was used to test this hypothesis because 30 respondents did not complete the Measure of Investiture items. The descriptive statistics for this sample can be located in Tables 3.8, 3.9, and 3.10. As noted in Chapter III, t-test and chi-square analysis were conducted to compare the outcomes and predictors in the full and reduced samples, and no statistically significant differences were found in these comparisons.

Investiture Socialization as a Cross-level Moderator in Solidarity Hazing Rationale

Because the winning slope varied across the population of chapters in the solidarity hazing rationale model ($\tau = 0.001, p < 0.01$), the model supported examining if chapter-level investiture socialization moderated the relationships between individual-level winning and solidarity hazing rationale.

Revised individual-level model with investiture socialization. To account for the inclusion of investiture socialization in the model with a reduced sample, new models were created to confirm the findings on the relationships between the included predictors and members' endorsement of solidarity hazing. One-way ANCOVA with random effects models were constructed with fixed individual-level predictors in blocks as outlined in Chapter III

Table 4.22.

Solidarity Hazing Rationale with Investiture Socialization ANCOVA Model Estimates of Fixed Effects with Robust Standard Errors

Student-level Predictor	Model 1a b (S.E.)	Model 1b b (S.E.)	Model 1c b (S.E.)	Model 1d b (S.E.)	Model 1e b (S.E.)	Model 1f b (S.E.)
Intercept	4.050*** (0.030)	4.047*** (0.033)	4.049*** (0.030)	4.053*** (0.030)	4.051*** (0.030)	4.056*** (0.030)
Class year						
Freshman	0.208** (0.038)	0.205** (0.040)	0.206** (0.038)	0.196** (0.039)	0.202** (0.040)	0.171** (0.038)
Sophomore	0.075 (0.036)	0.076 (0.036)	0.075 (0.036)	0.070 (0.035)	0.070 (0.035)	0.065 (0.035)
Senior	-0.086 (0.036)	-0.087* (0.036)	-0.091* (0.035)	-0.091* (0.033)	-0.088* (0.033)	-0.075 (0.032)
Student of color						
Asian	-0.077 (0.054)	-	-	-	-	-
Black	0.010 (0.088)	-	-	-	-	-
Hispanic/Latino	0.091 (0.053)	-	-	-	-	-
Multiracial or other	-0.122 (0.086)	-	-	-	-	-
Fraternity House Resident		0.004 (0.029)	-	-	-	-
Violence			-0.003 (0.004)	0.003 (0.004)	0.005 (0.004)	0.007 (0.004)
Risk-taking			0.010 (0.007)	0.012 (0.007)	0.020** (0.007)	0.020*** (0.007)
Winning			0.024*** (0.006)	0.025*** (0.005)	0.023*** (0.005)	0.024*** (0.005)
Emotional control				-0.016*** (0.004)	-0.015*** (0.004)	-0.015*** (0.004)
Self-reliance				-0.028*** (0.006)	-0.017** (0.006)	-0.013* (0.006)
Primacy of work				0.026*** (0.006)	0.028*** (0.006)	0.027*** (0.006)
Heterosexual pres.					0.007 (0.004)	0.011** (0.004)

Power over women					-0.049*** (0.008)	-0.039*** (0.008)
Playboy					-0.001 (0.006)	0.004 (0.006)
Investiture						0.128*** (0.017)
λ	0.612	0.615	0.619	0.631	0.639	0.652

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

Table 4.23.
Chapter-level Coefficients for the Combined Models for Predicting Solidarity Hazing Rationale including Investiture Socialization with Robust Standard Errors

Chapter-level predictor	Model 3a b (S.E.)	Model 3b b (S.E.)	Model 3c b (S.E.)	Model 3d b (S.E.)	Model 3e b (S.E.)
Intercept	2.723** (0.794)	2.789*** (0.745)	2.841** (0.783)	2.835*** (0.703)	2.782*** (0.746)
Violence climate	0.002 (0.042)	-	-	-	-
Risk-taking climate	0.110* (0.053)	0.121* (0.054)	0.114* (0.054)	0.109* (0.050)	0.121* (0.054)
Winning climate	-0.015 (0.030)	-0.009 (0.026)	-0.008 (0.027)	-0.007 (0.027)	-0.009 (0.026)
Emotional control climate	-0.023 (0.036)	-0.038 (0.033)	-0.046 (0.035)	-0.038 (0.032)	-0.038 (0.033)
Self-reliance climate	-0.026 (0.038)	-	-	-	-
Primacy of work climate	0.079 (0.067)	0.084 (0.061)	0.075 (0.063)	0.100 (0.063)	0.084 (0.061)
Heterosexual presentation climate	0.063 (0.036)	0.058 (0.033)	0.066 (0.036)	0.056 (0.034)	0.058 (0.033)
Power over women climate	-0.068 (0.068)	-0.053 (0.060)	-0.050 (0.062)	-0.034 (0.062)	-0.053 (0.060)
Playboy climate	0.038 (0.042)	-	-	-	-
Investiture climate	0.010 (0.067)	-0.004 (0.067)	-0.011 (0.076)	-0.007 (0.071)	-0.003 (0.068)
Private college or university			-0.024 (0.068)	-	-
Canadian college or university			0.129 (0.098)	-	-
Institution size			<-0.001 (<0.001)	-	-
Chapter with fraternity house				-0.088 (0.044)	-
Chapter size				<-0.001 (0.001)	-
Winning investiture climate					-0.014 (0.017)
λ	0.626	0.607	0.616	0.610	0.607

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

Table 4.24.

Loyalty Hazing Rationale with Investiture Socialization ANCOVA Model Estimates of Fixed Effects with Robust Standard Errors

Student-level Predictor	Model 1a b (S.E.)	Model 1b b (S.E.)	Model 1c b (S.E.)	Model 1d b (S.E.)	Model 1e b (S.E.)	Model 1f b (S.E.)
Intercept	3.354*** (0.039)	3.380*** (0.042)	3.367*** (0.040)	3.366*** (0.040)	3.370*** (0.040)	3.367*** (0.040)
Class year						
Freshman	0.160** (0.046)	0.150** (0.047)	0.164** (0.046)	0.164** (0.046)	0.145** (0.044)	0.163** (0.045)
Sophomore	0.078 (0.036)	0.077 (0.036)	0.077 (0.037)	0.076 (0.037)	0.073 (0.036)	0.076 (0.036)
Senior	-0.032 (0.039)	-0.040 (0.039)	-0.039 (0.038)	-0.037 (0.037)	-0.033 (0.037)	-0.040 (0.037)
Student of color						
Asian	0.089 (0.047)	-	-	-	-	-
Black	0.048 (0.074)	-	-	-	-	-
Hispanic/Latino	0.032 (0.050)	-	-	-	-	-
Multiracial or other	0.010 (0.077)	-	-	-	-	-
Fraternity House Resident		-0.036 (0.029)	-	-	-	-
Violence			0.001 (0.004)	0.003 (0.004)	-0.001 (0.004)	-0.002 (0.04)
Risk-taking			0.031*** (0.006)	0.032*** (0.006)	0.026*** (0.007)	0.026*** (0.007)
Winning			0.036*** (0.005)	0.037*** (0.005)	0.032*** (0.006)	0.031*** (0.006)
Emotional control				-0.013** (0.004)	-0.016*** (0.004)	-0.016*** (0.004)
Self-reliance				0.002 (0.007)	-0.006 (0.006)	-0.009 (0.006)
Primacy of work				0.002 (0.006)	0.001 (0.006)	0.001 (0.006)
Heterosexual pres.					0.022*** (0.005)	0.020*** (0.004)
Power over women					0.018* (0.009)	0.012 (0.006)

Playboy					0.008 (0.007)	0.005 (0.007)
Investiture						-0.075*** (0.013)
λ	0.732	0.730	0.741	0.742	0.748	0.750

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

Table 4.25.
Chapter-level Coefficients for the Combined Models for Predicting Loyalty Hazing Rationale including Investiture Socialization with Robust Standard Errors

Chapter-level predictor	Model 3a b (S.E.)	Model 3b b (S.E.)	Model 3c b (S.E.)	Model 3d b (S.E.)	Model 3e b (S.E.)
Intercept	3.318*** (0.652)	3.632*** (0.726)	3.681*** (0.788)	3.875*** (0.695)	3.883*** (0.701)
Violence climate	-0.076* (0.035)	-0.075* (0.032)	-0.080 (0.041)	-0.088** (0.032)	-0.091** (0.032)
Risk-taking climate	0.127* (0.057)	0.140* (0.053)	0.137* (0.052)	0.147** (0.049)	0.144** (0.047)
Winning climate	0.008 (0.028)	0.022 (0.027)	0.025 (0.029)	0.016 (0.026)	0.021 (0.026)
Emotional control climate	-0.041 (0.036)	-0.044 (0.033)	-0.047 (0.033)	-0.040 (0.030)	-0.043 (0.030)
Self-reliance climate	0.004 (0.047)	-	-	-	-
Primacy of work climate	0.026 (0.051)	-	-	-	-
Heterosexual presentation climate	0.075* (0.033)	0.059** (0.020)	0.063** (0.022)	0.063** (0.023)	0.071** (0.021)
Power over women climate	-0.034 (0.064)	-	-	-	-
Playboy climate	0.055 (0.038)	-	-	-	-
Investiture climate	-0.163* (0.075)	-0.177* (0.070)	-0.170* (0.077)	-0.200** (0.069)	-0.200** (0.070)
Private college or university			-0.047 (0.080)	-	-
Canadian college or university			0.062 (0.084)	-	-
Institution size			<-0.01 (<0.01)	-	-
Fraternity house				-0.142** (0.049)	-0.126* (0.048)
Chapter size				0.001 (0.001)	-
Risk-taking invest climate					0.005 (0.020)
Winning invest climate					0.015 (0.015)
λ	0.656	0.640	0.649	0.619	0.619

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

(see Table 4.22). Similar to prior models that exclude investiture socialization, all predictors were retained except the race and ethnicity predictors and the fraternity house residency status variable (see Model 1f of Table 4.22). Controlling for class year, an individual's reported race and ethnicity was not a significant predictor of solidarity hazing rationale. Controlling for class year, an individual's fraternity residency status was not a significant predictor of solidarity hazing rationale. Of note, investiture socialization was found to be a statistically significant predictor of solidarity hazing rationale after controlling for other predictors ($\gamma = 0.128, p < 0.001$).

Upon completion of the initial specification of the individual-level model, analyses were conducted to examine if any individual-level slopes varied significantly across the population of chapters prior to the inclusion of chapter-level predictors. In the final individual-level specified model prior to adding chapter-level variables, winning varied significantly between chapters as it did in the models excluding investiture socialization. The unconditional variability of individual-level winning masculine norm slope is 0.001, $p < .05$. In other words, the relationship between individual conformity to the norm of winning above one's chapter climate and one's endorsement of solidarity hazing varied significantly across the population of chapters. In addition, the relationship between individual investiture socialization and solidarity hazing rationale varied significantly across the populations of chapters ($\tau = 0.008, p < .01$). Within this model, the reliability of the intercept is quite reliable, $\lambda = .660$. The reliabilities of the winning slope (.272) and investiture slope (.328) are less reliable, but exceeds Raudenbush and Bryk's (2002) recommendation for fixing these slopes.

Revised chapter-level model with investiture socialization. An initial model that included all of the chapter masculine norm climate predictors and chapter investiture

socialization climate was created after the individual-level model was specified (see Model 3a of Table 4.23). Controlling for the other covariates, the predictors for violence ($\gamma = 0.006, p > .05$), self-reliance ($\gamma = -0.011, p > .05$), and playboy ($\gamma = 0.005, p > .05$) were found to not be significant at an individual-level, or at the chapter-level (violence, $\gamma = 0.002, p > .05$; self-reliance $\gamma = -0.026, p > .05$; playboy, $\gamma = 0.038, p > .05$). Because these three group-mean centered pairs were found to not be statistically significant, they were removed from both levels for all subsequent models. Among chapter-level predictors, only risk-taking climate ($\gamma = 0.110, p < .05$) was found to be statistically significant in the initial model. However, the individual-level predictors for risk-taking, winning, emotional control, primacy of work, heterosexual presentation, power over women, and investiture socialization were found to be statistically significant, and the accompanying climate variables were retained for future models. Because the violence, self-reliance and playboy group-mean centered pairs were removed from the model, the individual-level models were re-specified to account for their deletion.

Re-specified individual-level models with investiture socialization. A new individual-level model without random coefficients was created that included class year status, and the traditional masculine norms of risk-taking, winning, emotional control, primacy of work, heterosexual presentation, power of women, and investiture socialization. As with previous ANCOVA models, the freshman class year predictor was found to have a statistically significant relationship with solidarity hazing rationale after controlling for other covariates. Thus, all of the individual-level were retained for subsequent models. After reviewing this model, analyses were conducted to see if any of the predictors varied randomly between chapters. As with previous individual-level models, the relationships between winning and solidarity hazing rationale ($\tau = 0.001, p < .01$), and investiture socialization and solidarity hazing rationale ($\tau = 0.008, p <$

.01) varied significantly among the population of chapters. The relationships among the other predictors and the outcome did not vary randomly at statistically significant levels among the population of chapters. The reliabilities for the intercept (.659), winning slope (0.290) and investiture socialization (0.329) exceeded the standards to fix the slopes (Raudenbush & Bryk, 2002).

Revised masculine norm climate model within investiture socialization. Upon re-specifying the individual-level model, the six remaining chapter masculine norm climate predictors and chapter investiture socialization climate were added to the combined model (see Model 3b in Table 4.23). Of the masculine norm climate variables, only risk-taking climate ($\gamma = 0.121\ p < .05$) had a statistically significant relationship with solidarity hazing rationale, while all individual-level masculine norm predictors and investiture socialization were statistically significant predictors of this outcome. All of the individual-level and chapter-level masculine norms and the group-mean centered pair for investiture socialization were retained for future models.

The institutional context predictors of sector, country of institution, and institutional size were added to the model (see Model 3c in Table 4.23). None of these predictors has statistically significant relationships with solidarity hazing rationale, and all three were removed from subsequent models.

The chapter context predictors of chapter membership size and chapter housing status were added to the model (see Model 3d in Table 4.23). None of these predictors has statistically significant relationships with solidarity hazing rationale, and these predictors were removed from subsequent models.

Investiture socialization climate as a cross-level moderator. Investiture socialization climate was added to the model as a cross-level moderator on the individual winning coefficient (see Model 3e in Table 4.23). The cross-level interaction term for winning and investiture socialization was found to not be statistically significant ($\gamma_{11} = -0.014\ p > .05$). In addition, the inclusion of investiture socialization climate accounted for none of the variation in the relationship between winning and solidarity hazing rationale ($\tau_{10} = 0.006\ p < .01;\ \tau_{11} = 0.006\ p < .01$). These findings indicate that chapter investiture socialization climates does not explain the between-chapter variance in the relationship of the difference in a member's conformity to winning from his chapter and a members' endorsement of solidarity hazing rationale.

Investiture Socialization as Cross-level Moderator for Loyalty Hazing Rationale

Because the winning ($\tau = 0.001, p < 0.5$) and power over women ($\tau = 0.002, p < 0.01$) slopes varied across the population of chapters when modeling for loyalty hazing rationale, the model supported examining if chapter-level investiture socialization moderated the relationships between individual-level winning and solidarity hazing rationale, and power over women and solidarity hazing rationale.

Revised individual-level model with investiture socialization. To account for the inclusion of investiture socialization in the model with a reduced sample, new models were created to confirm the findings on the relationships between the included predictors and members' endorsement of loyalty hazing. One-way ANCOVA with random effects models were constructed with fixed individual-level predictors entered in blocks as outlined in Chapter III (see Table 4.24). Similar to prior models that exclude investiture socialization, all predictors were retained except the race and ethnicity predictors and the fraternity house residency status

variable (see Model 1f of Table 4.24). Controlling for class year, an individual's reported race and ethnicity was not a significant predictor of solidarity hazing rationale. Controlling for class year, an individual's fraternity residency status was not a significant predictor of solidarity hazing rationale. Similar to the solidarity hazing model including investiture socialization, individual-level investiture socialization was found to be a statistically significant predictor of loyalty hazing rationale after controlling for other predictors ($\gamma = -0.075, p < .001$).

Upon completion of the initial specification of the individual-level model, analyses were conducted to examine if any individual-level slopes varied significantly across the population of chapters prior to the inclusion of chapter-level predictors. In the final individual-level specified model prior to adding chapter-level variables, winning varied significantly between chapters as it did in the models excluding investiture socialization. The unconditional variability of individual-level winning masculine norm slope was <0.001, p<.05. While the variance of the power over women slope was found to be statistically significant in the models prior to the inclusion of investiture, power over women was fixed in the random coefficients model because it was found to not be statistically significant predictor of loyalty hazing rationale upon the inclusion of individual-level investiture. In addition to allowing winning to vary randomly, the relationship between risk-taking and loyalty hazing rationale varied significantly across the populations of chapters ($\tau = 0.001, p < .05$). The variabilities of the winning and risk-taking slopes supported the addition of the investiture socialization climate as a cross-level moderator to explain this variance. Within this model, the reliability of the intercept is quite reliable, $\lambda = .754$. The reliabilities of the winning slope (.271) and risk-taking slope (.233) are less reliable, but exceeds the Raudenbush and Bryk (2002) recommendation for fixing these slopes.

Revised chapter-level model with investiture socialization. An initial model that included all of the chapter masculine norm climate predictors and chapter investiture socialization climate was created after the individual-level model was specified (see Model 3a of Table 4.25). Controlling for the other covariates, the predictors for self-reliance ($\gamma = -0.009, p > .05$), primacy of work ($\gamma = 0.002, p > .05$), power over women ($\gamma = 0.011, p > .05$), and playboy ($\gamma = 0.006, p > .05$) were found to not be statistically significant at an individual-level, or at the chapter-level (self-reliance, $\gamma = 0.004, p > .05$; primacy of work, $\gamma = 0.026, p > .05$; power over women, $\gamma = -0.034, p > .05$; playboy, $\gamma = 0.055, p > .05$). Because these four group-mean centered pairs were found to not be statistically significant, they were removed from both levels for all subsequent models. Among chapter-level predictors, risk-taking climate ($\gamma = 0.127, p < .05$), violence climate ($\gamma = -0.076, p < .05$), heterosexual presentation climate ($\gamma = 0.075, p < .05$), and investiture socialization climate ($\gamma = -0.163, p < .05$) were found to have statistically significant relationships with loyalty hazing rationale in the initial model. The individual-level predictors for risk-taking, winning, emotional control, heterosexual presentation, and investiture socialization were found to be statistically significant, and the accompanying climate variables for winning and emotional control were retained for future models. Because the self-reliance, primacy of work, power over women, and playboy group-mean centered pairs were removed from the model, the individual-level models were re-specified to account for their deletion.

Re-specified individual-level models with investiture socialization. A new individual-level model without random coefficients was created that included class year status, the traditional masculine norms of violence, risk-taking, winning, emotional control and heterosexual presentation, and investiture socialization. As with previous ANCOVA models, the

freshman class year predictor was found to have a statistically significant relationship with alcohol consumption after controlling for other covariates. Thus, all of the individual-level were retained for subsequent models. After reviewing this model, analyses were conducted to see if any of the predictors varied randomly between chapters. As with previous individual-level models that include investiture socialization, the relationships between winning and solidarity hazing rationale ($\tau = 0.001, p < 0.05$), and risk-taking and loyalty hazing rationale ($\tau = 0.001, p < 0.05$) varied significantly across the population of chapters. The relationships among the other predictors and the outcome did not vary randomly at statistically significant levels among the population of chapters. The reliabilities for the intercept (.754), winning slope (0.271) and risk-taking slope (0.240) exceeded the standards to fix the slopes (Raudenbush & Bryk, 2002).

Revised masculine norm climate model with investiture socialization. Upon re-specifying the individual-level model, the five remaining chapter masculine norm climate predictors and chapter investiture socialization climate were added to the combined model (see Model 3b in Table 4.25). Of the climate variables, violence climate ($\gamma = -0.075, p < .05$), risk-taking climate ($\gamma = 0.140. p < .05$), heterosexual presentation climate ($\gamma = 0.059, p < .01$) and investiture socialization climate ($\gamma = -0.177, p < .05$) had statistically significant relationships with loyalty hazing rationale. The individual-level masculine norm predictors of risk-taking, winning, emotional control and heterosexual presentation, and individual-level investiture socialization were statistically significant predictors of this outcome. All of the individual-level and chapter-level masculine norms and the group-mean centered pair for investiture socialization were retained for future models.

The institutional context predictors of sector, country of institution, and institutional size were added to the model (see Model 3c in Table 4.25). None of these predictors has statistically significant relationships with loyalty hazing rationale, and all three were removed from subsequent models.

The chapter context predictors of chapter membership size and chapter housing status were added to the model (see Model 3d in Table 4.25). Chapter housing status had a statistically significant relationship with loyalty hazing rationale ($\gamma = -0.142, p < .01$), while chapter size did not. Chapter housing status was retained and chapter size was excluded from subsequent models.

Investiture socialization climate as a cross-level moderator. Investiture socialization climate was added to the model as a cross-level moderator on the winning and risk-taking slopes (see Model 3e in Table 4.25). The cross-level interaction terms for winning and investiture socialization climate ($\gamma_{11} = 0.015\ p > .05$) or risk-taking and investiture socialization climate ($\gamma_{21} = 0.0105\ p > .05$) were found to not be statistically significant. The inclusion of investiture socialization climate accounted for only 1.79% of the variation in the relationship between winning and loyalty hazing rationale ($\tau_{10} = 0.001, p < .01;\ \tau_{11} = 0.001, p < .01$). The inclusion of investiture socialization climate accounted for none of the variation in the relationship between risk-taking and loyalty hazing rationale ($\tau_{20} = 0.001, p < .01;\ \tau_{21} = 0.001, p < .01$). These findings indicate that chapter investiture socialization climates does not explain the between-chapter variance in the relationships of the difference in a member's conformity to winning or risk-raking from his chapter and this members' endorsement of loyalty hazing rationale.

Fifth Research Question Summary

The fifth research question examined if investiture socialization climate moderated the relationships between any individual-level masculine norms and outcomes that varied across the population of chapters. The findings indicated that the inclusion of investiture socialization climate in a cross-level interaction term did not explain any masculine norm slope variance in either the solidarity or loyalty hazing rationale models.

Summary and Conclusions

This chapter described the findings for the analyses to respond to the five research questions of this study:

1. What are the alcohol consumption behavior and hazing rationale patterns among fraternity members and their chapters?
2. How do members' conformity to masculine norms vary between chapters, and exhibit chapter-level properties?
3. How, if at all, do the alcohol consumption behaviors and hazing rationales of individual fraternity members vary from fraternity chapter to fraternity chapter, and, if so,
4. How, if at all, do the fraternity chapter masculine norm climates relate to these problematic behaviors and attitudes?
5. If applicable, does investiture socialization moderate the relationship between individual masculine norm adoption and their problematic behaviors or attitudes that vary across the population of chapters?

The results of this study indicated that fraternity members engage in hazardous alcohol consumption behaviors, and endorse hazing motivations to unify and educate newcomers.

However, members' alcohol use behaviors and attitudes toward hazing differ based on individual characteristics and experiences. Members' conformity to traditional masculine norms varies from chapter to chapter, and the collective masculine norm conformity of members of a chapter can be considered a masculine norm climate. With the exception of loyalty hazing rationale, chapter masculine norm climates were related to members' alcohol consumption behaviors, and the extent to which they endorse social dominance, solidarity and instrumental education hazing rationales. Heterosexual presentation climate was a statistically significant predictor of a member's alcohol consumption behaviors, and risk-taking climate was the only masculine norm climate related to a member's endorsement of instrumental education and solidarity hazing rationales. Risk-taking, heterosexual presentation and playboy climates were found to be positively related to a member's social dominance hazing rationale, while violence climate was negatively related to this outcome. Investiture socialization climate did not moderate the relationships between individual-level masculine norms and outcomes that varied randomly between chapters. Chapter V discusses these findings, and the implications of these results on research and practice.

Chapter V: Discussion, Implications and Conclusion

The purpose of the study was threefold. First, the study sought to examine the extent to which individual members' conceptualizations of masculinities varied from fraternity chapter to fraternity chapter. Another purpose of the study was to identify if relationships existed among the masculine norm climates perpetuated by fraternity chapters and individual members' alcohol consumption behaviors and their endorsement of four hazing rationales. In the event that the relationships among any of the individual members' conformity to a traditional masculine norm and these outcomes varied across the population of chapters, the study examined if the investiture socialization tactics employed by fraternity chapters explained this variance. Informed by a critical postmodern perspective, this chapter provides a discussion of the study findings that answer the research questions:

1. What are the alcohol consumption behavior and hazing rationale patterns among fraternity members and their chapters?
2. How do members' conformity to masculine norms vary between chapters, and exhibit chapter-level properties?
3. How, if at all, do the alcohol consumption behaviors and hazing rationales of individual fraternity members vary from fraternity chapter to fraternity chapter, and, if so,
4. How, if at all, do the fraternity chapter masculine norm climates relate to these problematic behaviors and attitudes?
5. If applicable, does investiture socialization moderate the relationship between individual masculine norm adoption and their problematic behaviors or attitudes that vary across the population of chapters?

The chapter begins with a discussion of the results related to alcohol consumption behavior and hazing rationale patterns of fraternity members and their chapters.

Patterns of Alcohol Consumption Behaviors and Hazing Rationales

Alcohol Consumption Patterns

Consistent with prior research (e.g., Wechsler et al., 1996), the results indicate that a majority of fraternity men (76.51%) engaged in hazardous alcohol consumption behaviors. In particular, the findings show that many fraternity members routinely binge drank, as a majority (55.12%) reported consuming six more drinks in a single occurrence at least once a month. Though the problematic use of alcohol by fraternity men is of paramount concern, it is important to note that 232 participants (8.66%) reported that they did not consume alcohol in the past year. These findings support the association of fraternity membership with hazardous alcohol use, but also indicate that not all fraternity men engaged in this behavior.

Other patterns provide additional onus to for researchers and practitioners to disaggregate fraternity men to understand their alcohol consumption behaviors. While a majority of members in the sample reported that they engaged in problematic alcohol use, the results provided evidence that the drinking behaviors of fraternity men varied based an individual's racial or ethnic identity, class year, or fraternity house residency status. Students identifying as White and Native American, multiracial, multiethnic or other reported heavier drinking than students identifying as Asian, Native Hawaiian or Pacific Islander, Black or Hispanic/Latino (see Table 4.2). Freshmen reported the lowest drinking level among class cohorts, while each consecutive more veteran class cohort was found to be heavier drinkers than the last (see Table 4.1). Seniors had the highest reported drinking level. Fraternity house residents were found to be heavier drinkers than their out-of-house peers. The findings support Biddix and colleagues' (2014) call to

investigate the between group differences in the outcomes of fraternity men, and indicate that specific student populations based on race or ethnic, class year and fraternity house residence status are heavier drinkers than others.

Unlike the identified individual differences in members' alcohol use, there were no identified differences in the alcohol use climates of fraternity chapters based on the location of these groups at a public or private institution, the size of the undergraduate student population of these institutions, whether the institutions are located in the United States or Canada, whether the chapter maintained a chapter house or not, or the chapter membership sizes. The findings indicate that any differences in the alcohol use climates of fraternity chapters can be better explained by other contextual factors. It is particularly noteworthy that the housing status of the chapters was not found to be statistically different, as scholars have routinely identified fraternity houses are loci for heavy drinking (e.g., Crosse et al., 2006). While more problematic drinkers may be more likely to reside in these facilities, interventions and policies that aimed specifically at fraternity housing (e.g., fraternity housing bans) may do little to change the alcohol consumption behaviors of fraternity men.

Like individual demographic characteristics, individual differences in fraternity men's conformity to traditional masculine norms related to their reported alcohol consumption behaviors (see Table 4.3). With the exception of a negative relationship between members' adoption to the primacy of work norm and their heavy drinking, their conformity to the eight other hegemonic masculine norms correlated with their hazardous drinking behaviors. These findings support the literature that indicates that conformity to hegemonic masculinity relates to the problematic alcohol use of college men (Iwamoto et al., 2011, 2014; Peralta, 2007), and in particular, fraternity men (Sweeney, 2014). Men concerned with performing hegemonic

masculinity may view heavy drinking as a mean to validate and maintain their manhood status. As asserted by Iwamoto and colleagues (2011), college men that value work above other priorities may be less likely to drink because the problematic outcomes associated with alcohol use could harm their career aspirations. Thus, the alcohol use of college men may vary depending on how they conceptualize and enact gender.

While no statistically significant differences were found among the contextual factors and the alcohol consumption behaviors climates of fraternity chapters, several traditional masculine norm climates perpetuated by these organizations correlated with this outcome (see Table 4.4). Chapters where members collectively conformed to the masculine norms of violence, risk-taking, and winning, primacy of work, heterosexual presentation and playboy correlated with increases in the collective heavy drinking of chapter members. These findings indicate that the alcohol use of fraternity men may not only be related to their own conformity to hegemonic masculinity, but the conformity to these norms by their chapter peers.

In addition to the relationships among an individual's conformity to traditional masculine norms and alcohol consumption behaviors, the study found that members who supported organizational socialization tactics that disaffirmed newcomers' identities correlated with their heavy drinking (see Table 4.3). While a relationship between investiture vs. divestiture socialization tactic was not included in the multilevel models for the study, given the concerns about fraternity socialization processes, future scholars should consider investigating the relationships between newcomer socialization tactics and members' alcohol use in college fraternity.

While the investiture vs. divestiture socialization tactic related to individual member's alcohol consumption behaviors, the tactic climates perpetuated by chapters was found to not

correlate to the collective heavy drinking of its members (see Table 4.4). Future multilevel research on the alcohol use fraternity men should include group-mean centered investiture vs. divestiture socialization to fully examine the relationship between the socialization tactic climates employed by chapters and individual members' alcohol use.

Hazing Rationale Patterns

While the findings indicate that a majority of fraternity members endorsed solidarity and instrumental education hazing rationales, fewer members endorsed hazing intended to foster newcomer commitment to their fraternity chapters or to promote a membership hierarchy. The formation of close relationships with other men, and education are often labelled as feminine by college men (Edwards & Jones, 2009). Because fraternity men may be more inclined to endorse hazing in order to promote newcomer group bonding and to educate newcomers about their chapters, members may rely on hazing to mask outcomes that the members themselves or others may perceive as feminine.

An examination of the differences in endorsement of the four hazing rationales based on the class years of members revealed that freshmen member supported three of these rationales to a greater extent than students further along in their undergraduate careers (see Table 4.1). These finding are of significance to the literature on hazing, as no prior study had examined differences in hazing motivations based on a student's class year. If hazing is viewed as a ritualistic passage into manhood by fraternity men (Kimmel, 2008), recent or current fraternity newcomers may endorse these practices in hopes that it validates their identities as men. Sophomore, juniors and seniors may be less supportive of these rationales because they may be less confident that fraternity initiation practices confer manhood. The findings may also represent how student development relates to individual's susceptibility to hazing practices. For example, based on

college student intellectual development theories (e.g., Baxter Magolda, 1992), first year students may be more likely to view more veteran members as experts on the fraternity experience and manhood than other students with enhanced increased critical thinking skills.

In addition to class year, the findings suggest that students' endorsement of social dominance, solidarity, and instrumental education hazing differed based on the racial or ethnic identities of fraternity members. Asian, Native Hawaiian, and Pacific Islander identifying students were found to endorse social dominance hazing more than other fraternity men, and Latino and Hispanic identifying men endorsed solidarity and instrumental education hazing rationales more than other members (see Table 4.2). Students of color may endorse specific hazing rationales as a means to prove their masculinities in the face of consistent marginalization of their status as men. Future scholarship should explore the hazing motivations of students of various racial and ethnic identities in greater detail.

A difference was also identified between the extent fraternity house residents and members residing in other locations endorsed social dominance hazing. The findings suggest that out of house members endorsed social dominance hazing more than those that resided in a chapter house. Because this finding is consistent with the results of the multilevel modeling for social dominance hazing, a more thorough discussion is provided later in this chapter. However, this finding may indicate that out of house members utilize social dominance hazing to oppress newcomers and validate their masculinities, while fraternity house residents assert their power over newcomers and perform masculinity by living in the chapter facility.

In addition to the findings for the demographic characteristics and members' endorsement of hazing rationales, the results suggest that individuals' conformity to traditional masculine norms related to their endorsement of these rationales (see Table 4.3). All of the

traditional masculine norms were positively correlated with a social dominance hazing rationale except primacy of work. Men's adoption of norms representative of self-sacrifice (risk-taking, winning and primacy of work) were positively related to members' support of hazing intended to foster newcomer bonding, while conformity to norms representative of their suppression of vulnerability (emotional control and self-reliance), and misogyny (power over women) negatively correlated with this outcome. The norms associated with self-sacrifice (risk-taking, winning and primacy of work), aggression (violence), misogyny (power over women and playboy) and homophobia (heterosexual presentation) were positively correlated with members' endorsement of hazing intended to promote commitment to the fraternity. While conformity to norms that indicate personal success and sacrifice (winning and primacy of work) had positive correlations with instrumental education hazing rationale, and adoption of norms associated with the suppression of vulnerability (emotional control and self-reliance) and fear of femininity (power over women, playboy and heterosexual presentation) were negatively correlated with this outcome. Thus, how fraternity men enact gender may relate to their motivations to hazing fraternity newcomers.

In addition to the relationships among an individual's conformity to traditional masculine norms and hazing rationales, the study found the investiture vs. divestiture socialization tactic was positively correlated with solidarity and instrumental education hazing rationales, and negatively correlated with social dominance and loyalty hazing rationales (see Table 4.3). While these relationships were not included in the multilevel models for the study, given the concerns about fraternity socialization processes and hazing, future scholars should consider investigating the relationships between newcomer socialization tactics and members' endorsement of hazing.

An examination of the differences or correlations among contextual factors and the hazing rationale climates of fraternity chapters provided several interesting findings (see Table 4.4). The results indicate that there were no differences in the solidarity or loyalty rationale climates of chapters based on the location of these groups at a public or private institution, the size of the student population of these institutions, whether the institutions are located in the United States or Canada, whether the chapter maintained a chapter house or not, or the chapter membership sizes. However, the membership size of chapters positively correlated with social dominance hazing climate, and negatively correlated with instrumental education hazing climate. In other words, members of chapters with larger memberships may collectively endorse social dominance hazing more than chapters with smaller memberships, and collectively endorse instrumental education hazing less than these smaller groups. In addition, social dominance hazing rationale climate was found to have a positive correlation with the size of the undergraduate population. Within larger chapters or at larger institutions, fraternity members of chapters with social dominance hazing climates may oppress newcomers to prove and reinforce their masculinity in environments where they do not have established relationships with newcomers or other stakeholders. Similarly, social dominance hazing may be a means for newcomers to prove their manhood. In contrast, chapters with smaller memberships may need newcomers to quickly step into leadership roles, and they view hazing a means to prepare men to be contributing members of their chapters.

In addition to the observed correlations for chapter and institutional size, the study identified several fraternity chapter masculine norm climates that correlated with the social dominance, solidarity, loyalty, and instrumental education hazing rationale climates of these groups (see Table 4.4). The playboy norm climates of chapters correlated with all four hazing

rationale climates. Risk-taking and heterosexual presentation chapter climates correlated with social dominance, solidarity and loyalty hazing rationale climates. Power over women and winning chapter climates correlated with social dominance and loyalty hazing climates. These correlations indicate that the hegemonic masculinity collectively adopted by fraternity men in a chapter relates to their collective endorsement of hazing behavior. In support of DeSantis' (2007) argument, it appears that fraternity chapters that more rigidly enact hegemonic masculinity are more likely to support troubling hazing mentalities.

Like masculine norm climates, the study identified that chapter investiture socialization climates correlate with hazing rationale climates of these organizations (see Table 4.4). Investiture socialization climate were found to negatively correlate with social dominance and loyalty hazing rationales. In other words, chapters where members collectively endorse socialization tactics to disaffirm newcomers' identities and expect newcomers to assimilate into the organization are likely to promote hazing that intends to foster hierarchy and promote commitment to the organization. While investiture socialization is not explored in the multilevel models of the study, the relationships among Van Maanen and Schein's (1979) organizational socialization tactics and hazing is ripe for investigation.

Between Chapter Differences in Member Masculine Norm Conformity

After an examination of the alcohol use and hazing rationales patterns among fraternity members, the second research question addressed if members' conformity to masculine norms varied between chapters, and identified if any found variance exhibited group-level properties. Members' conformity to all nine masculine norms were found to vary between chapters, and these models were statistically significant and reliable (see Table 4.5). These findings indicate that the gender performances that define manhood differed from fraternity chapter to chapter,

and the conceptualization of "fraternity man" was not uniform across Philadelphian Fraternity. Members of some chapters may more rigidly perform hegemonic masculinity, while members in other chapters may have greater latitude in their gender performances (DeSantis, 2007).

Adding to the literature, the findings provide a more nuanced understanding of the extent to which members' masculine norm conformity may vary between fraternity chapters. The greatest variances between chapters were for the masculine norms of heterosexual presentation (8.32%), power over women (7.73%), winning (7.26%), and playboy (6.90%). Of particular note, heterosexual presentation, power over women, and playboy are emblematic of homophobia and misogyny. These attitudes are used to construct and reinforce hegemonic masculinity (Kimmel, 2008). While scholars often associate fraternities with homophobia and misogyny (Martin & Hummer, 1989; Sanday, 1990/2007; Syrett, 2009), the findings support Desantis' (2007) assertion that these attitudes fluctuate between members from different chapters. Like homophobia and misogyny, individuals often utilize competition, as exemplified by winning and playboy, to assert and maintain their status as men (Vandello & Bosson, 2013).

In contrast to the findings for members' conformity to heterosexual presentation, power over women, winning and playboy, the findings suggest that there was less variability between chapters for the five other traditional masculine norms. In particular, the variance between chapters for members' adherence to primacy of work (2.55%), self-reliance (2.79%) and emotional control (2.36%) were all below three percent. The results suggest that differences in conformity to these norms is related more to differences between members instead of differences between chapters. In other words, while conformity to primacy of work, self-reliance, emotional control, violence and risk-taking is more uniform across the entire Philadelphian Fraternity membership than their adherence to heterosexual presentation, power over women, winning and

playboy. Because no predictors were added to any of the nine masculine norm models, it is not possible to identify individual-level or chapter-level variables that may explain members' conformity to these traditional masculine norms. However, future research should explore factors that contribute to college men's adoption of masculine norms.

Alcohol Consumption Behaviors

The third research question examined if individual alcohol consumption behaviors and hazing rationales varied between chapters. In response to the first portion of this question, the results support prior research that found that members' alcohol consumption behaviors varied between fraternity chapters (Caudill et al., 2006; Crosse et al., 2006; Reis & Trockel, 2003). The initial unconditional model found that 15.73% of the variance in alcohol consumption behaviors can be explained by differences between chapters. In tandem with the prior research, this finding challenges the notion that fraternity men can be considered a monolithic population of heavy drinkers. Researchers that elect to include fraternity membership as a variable in their studies on college student alcohol use should be aware that this behavior may vary from chapter to chapter.

Because alcohol consumption serves as a mechanism for individuals to perform hegemonic masculinity (Lemle & Mishkind, 1989; Peralta, 2007; West, 2001), this finding bolsters the assertion that the gender performances of members vary between chapters. Members of chapters that maintain and reinforce hegemonic masculinity may engage in heavy drinking to prove their manhood, while members of chapters that promote more inclusive gender cultures may feel less inclined to consume alcohol to affirm their status as men.

Individual-level Variables and Alcohol Use

Member characteristics and alcohol use. Before examining the relationships between chapter masculine norm climates and alcohol consumption behaviors of members in response to

the fourth research question, there were a number of member characteristics that related to members' reported alcohol use. While the literature is inconclusive on the relationship between class year and the alcohol use of fraternity men, the study found that more veteran students were predicted to engage in heavier drinking behaviors than their peers. Each class level predictor had a statistically significant relationship with alcohol consumption behaviors (see Table 4.8). Freshmen were predicted to have the lowest alcohol consumption behaviors, while seniors were predicted to have the highest. In addition, the findings show that the alcohol consumption behaviors of freshmen members varied from chapter to chapter, but these differences were not found in more veteran class cohorts. In other words, while one chapter may recruit freshmen that may abstain from alcohol use, and another may recruit heavy drinkers, these differences dissipate as these individuals are socialized into the heavy drinking environment promoted across the international fraternity. Peralta (2007) identified that college men often view heavy drinking as "badges of honor" and increased tolerance is perceived to be an achievement. Thus, the risk-taking and competition associated with heavy drinking in college serves as means for men to express their manhood and gain power. If alcohol serves as a means to perform masculinity (Lemle & Mishkind, 1989; Peralta, 2007; West, 2001), heavier drinking may allow more veteran members to assert their status as prototypical fraternity men, and to maintain power within their chapters. Increased alcohol tolerance serves as infallible evidence of manhood. In turn, chapter newcomers that engage in less hazardous alcohol consumption behaviors may emulate the alcohol use role modeled by veterans in order to be recognized as real fraternity men by their peers (Sasso, 2015). However, because first year students may drink less than veteran members, attempts to prove their masculinity through heavy drinking may place them at increased risk for alcohol-related consequences.

In addition to the results for student class level, the findings indicate that White members were heavier drinkers than their peers of color (see Table 4.8). While all students of color, except those identifying as multiracial, multiethnic, Native American or other, were predicted to engage in less hazardous alcohol consumption behaviors than White members, only those identifying Asian, Native Hawaiian, and Pacific Islander were predicted to do so at a statistically significant level. These results support the arguments made by Kimmel (2008) and Sweeney (2014) that alcohol use is a mechanism to perform White hegemonic masculinity and engage in the collegiate party discourse. If alcohol is pivotal to the conceptualization of the "fraternity man" identity, it may be challenging for students of color, particularly Asian, Native Hawaiian or Pacific Islander members, to prove their masculinity, and earn and maintain their manhood in their fraternity chapters.

While others have found that fraternity house residents engage in more problematic alcohol use behaviors than members living outside of fraternity houses (Crosse et al., 2006; Page & O'Hegarty, 2006; Park et al., 2009), the results show that fraternity house residence status did not significantly predict members' alcohol consumption behaviors after controlling for their class years and reported race or ethnicity (see Table 4.6). Because none of the prior research had controlled for class year, or race or ethnicity, these results may indicate that individual characteristics are simply better predictors of a fraternity member's alcohol use. It is also possible that this finding may be limited to Philadelphian Fraternity, and future research should continue to probe if fraternity house residence status relates to a member's alcohol consumption behaviors.

Individual masculine norm conformity and alcohol use. Other than member characteristics, the findings show that there were relationships between a fraternity member's

conformity to six masculine norms and his alcohol consumption behaviors (see Table 4.8). This study advances the literature by factoring in the clustering effect of an individual's group membership. Because the multilevel models relied on group-mean centering, these findings are interpreted as the extent to which an individual's conformity to a masculine norm is greater or less than the masculine norm climate of his chapter. The study found that individuals who conform to violence, risk-taking, winning, heterosexual presentation or playboy more than their chapter norm climates were predicted to be heavier drinkers, while whose who conform to primacy of work more than their chapter primacy of work climate were predicted to have less hazardous alcohol consumption behaviors. These findings are consistent with previous studies that have identified a link between hegemonic masculine norms and the alcohol use of college men.

Similar to the present study, Iwamoto and colleagues (2011; 2014) identified that risk-taking, winning, and playboy were associated with the alcohol use of college men. Fraternity men that value risk-taking above their chapter peers may rely on heavy drinking because of the associated health risks with these behaviors. These behaviors may serve to foster self-esteem and achieve stable identities as "typical fraternity men" for these risk-takers. Individuals that are more competitive than their fellow chapter members may attempt to out-drink others or participate in drinking games in order to prove their manhood. Fraternity men that desire to be more promiscuous than their peers may be caught up in the collegiate partying scene that entangles alcohol and casual sex as these members attempt to validate or maintain their status as men through sexual conquests (Sweeney, 2014). Thus, men that conform to these three norms more than their peers may do so to prove their masculinity to themselves and to others.

Unlike the findings for the relationships between risk-raking, winning and playboy, the positive relationships between the norms of heterosexual presentation and violence, and alcohol use were unique to this study. Other studies had found that heterosexual presentation was negatively associated with college men's drinking (Iwamoto et al., 2011; 2014), and these scholars argued that individuals concerned about being perceived as heterosexual may drink less to protect their status as men. However, fraternity men who are more concerned about their heterosexual identities than their fellow chapters members may drink more to affirm they are straight, and to avoid being identified as gay or feminine (Kimmel, 1994). This may explain why heterosexual presentation has been associated with frequency of drinking game participation of White college freshmen (Zamboanga, Iwamoto, Pesigan, & Tomaso, 2015). Alcohol use may also be one of the few socially acceptable ways that fraternity men can attempt to build intimate social bonds with their peers, and still maintain their masculine identities (Syrett, 2009). Though the finding regarding the relationship between men's conforming to the masculine norm of violence above that of their chapter peers and alcohol use is novel to this study, other scholars have identified that alcohol use increases the likelihood of males engaging in violence (Bachman & Peralta, 2002). Peralta (2007) identified that alcohol use may lower inhibitions that allow men to engage in violence to prove their masculinity. It may also be possible that men that endorse violence engage in the collegiate party culture knowing that these environments may provide opportunities to engage in violent acts to reinforce their manhood.

While the conformity to certain masculine norms above that of other chapter members may increase the heavy drinking of fraternity men, individuals that conform to primacy of work more than their chapter peers may engage in fewer hazardous alcohol consumption behaviors than their peers. Iwamoto and colleagues (2011) posited that college men that prioritize work and

academics may avoid heavy drinking to avoid jeopardizing their academic or career pursuits. In addition, academic success and preparation for life after college are viewed as feminine attributes by college men (Edwards & Jones, 2009). Fraternity men that place a priority on work more than their chapter peers may choose to sacrifice aspects at affirm their masculine identities, including heavy alcohol use, in order to ensure their success after college.

The individual differences in masculine norm conformity also suggest that the relationships between traditional masculine norms and alcohol use were socialized by experiences and environments beyond the confines of fraternity chapters. Other scholars have found that the gender performances of college men as not only impacted by their college peer groups like fraternities, but also their precollege experiences with gender performance role models, peers, and involvement sports and other clubs (Harris, 2010; Harris & Harper, 2015). In addition, the gender performances of fraternity men may be influenced by the culture of their institutions, their academic pursuits, and by other societal factors. These differences in gender performativity add to the assertion that masculinity is not monolithic among fraternity men, and the hegemonic conceptualization of "fraternity men" may only be embodied by a minority of privileged members.

Chapter-level Variables and Alcohol Use

Chapter masculine norm climates and alcohol use. The fourth research question examined if fraternity chapter masculine norm climates related to alcohol consumption behaviors and hazing rationales of fraternity men. In response to the first portion of this question, the study found that the heterosexual presentation climate of a fraternity chapter was a statistically significant predictor of heavy drinking behaviors (see Table 4.8). Chapters with members that are collectively homophobic may be more likely to engage in hazardous drinking than their peers

in chapters where members are less concerned about their heterosexual identities. This finding of particular significance to the literature, as no previous study had linked specific hegemonic masculine norm climates and individual alcohol use across a national or international sample of college men. In chapters that promote homophobic climates, men may engage in hazardous alcohol use to avoid accusations that they are gay or feminine (DeSantis, 2007; Kimmel, 2008; Syrett, 2009). In addition, alcohol use reduces members' inhibitions, and may provide one of the only forums for members of homophobic chapters to foster intimate, close relationships with their chapter peers without having their manhood challenged. Conversely, chapter climates that are more inclusive to gay members may allow members to be more vulnerable with one another without alcohol (i.e., alcohol may play a diminished role in the establishment of relationships with between men), and these members may feel less pressure to reinforce or maintain their status as men through heavy drinking.

No other fraternity chapter masculine norm climate was found to be a statistically significant predictors of the alcohol consumption behaviors of members. The fraternity chapter climate predictors for violence, risk-taking, winning, primacy of work, and playboy were all retained in the final HLM model to comply with the properties of group-mean centered variables. All five of these masculine norm climate variables were found to have positive relationships with alcohol consumption. Scholars should continue to examine the relationship among traditional masculine norm climates and the alcohol use of fraternity.

Contextual factors. None of the five contextual variables were statistically significant predictors of member's alcohol consumption behaviors. However, because 65.8% of variance between chapters in the final model remained unexplained in the final model, future researchers should consider other contextual factors that may predict members' alcohol use. Because an

individual's race or ethnicity and a fraternity chapter's heterosexual presentation climate were related heavy drinking behaviors, it is vital that scholars examine the relationships among organizational barriers and inequalities related to race, sexual orientation, gender, and other marginalized identities, and a member's alcohol use. For example, future scholarship could examine if the percentage of students of color within a chapter relates to heavy drinking. Inclusion of variables of this nature may allow of a more thorough examination of the structures of power within men's fraternities, and the relationships of these predictors to a member's alcohol consumption behaviors.

Hazing Rationales

In response to the second portion of the third research question, if individual alcohol consumption behaviors and hazing rationales varied between chapters, the results indicate that members' endorsement of social dominance, solidarity, loyalty and instrumental education hazing rationales varied significantly from fraternity chapter to chapter. These findings are vital contributions to the literature, as no prior study had examined if differences exist in hazing attitudes among fraternity men from different chapters. Similar to the finding for alcohol consumption behaviors, these results indicate the fraternity men's attitudes toward hazing were not uniform across this population, and that chapter climates may relate to their perceptions about these potentially harmful practices. Because the findings indicate that hazing rationales are related to group context, the study challenges Tiger's (1969/1984) theory that hazing is rooted in a biological need for male bonding with groups.

In contrast to Tiger's (1969/1984) assertion, the findings may better be explained by the scholarship that has linked hazing and masculinity (DeSantis, 2007; Kimmel, 2008; Sanday, 1990/2007; Syrett, 2009). If hazing serves as a means for men to prove their masculinity and a

gatekeeping mechanism to guard against the scrutiny of intimate relationships between men, then the differences in hazing attitudes from chapter to chapter may provide additional evidence that masculinities fluctuate between fraternity chapters. Members of chapters that promote hegemonic masculinity may be more likely to endorse hazing than members of chapters with more inclusive gendered climates.

Individual-level Variables and Hazing Rationales

Member characteristics and hazing rationales. Before examining the relationships between chapter masculine norm climates and the hazing rationales endorsed by members in response to the fourth research question, there were a number of member characteristics that related to members' attitudes toward hazing. No prior study had examined if a student's endorsement of hazing differed based on his or her class year. Advancing the literature on college student hazing, the findings show that freshmen were predicted to support solidarity (see Table 4.15), loyalty (see Table 4.18), and instrumental education hazing rationales (see Table 4.21) more than their sophomore, junior or senior fraternity chapter peers. Because participants in the study were surveyed early in the spring 2017 term, it is likely that the first year students had either just completed, or were actively participating in, their formal fraternity newcomer experiences. If fraternities utilize hazing to have newcomers prove their manhood (Kimmel, 2008; Syrett, 2009), then recent or current newcomers may be inclined to support hazing rationales out of a desire to be accepted men by their peers and to convince themselves that they are real men. In other words, these men may want to believe that enduring hazing validated their manhood. Support for hazing rationales may dissipate among more veteran members, who have faced challenges to their masculinities after the conclusion of their newcomer experiences, and

who are no longer convinced that their hazing experiences resulted in the confirmation of their manhood.

While class year was not a predictor of social dominance rationale, students that identified as Asian, Native Hawaiian or Pacific Islander were predicted to endorse this hazing mentality more than their chapter peers that identified with other races and ethnicities (see Table 4.12). Students' race and ethnic identities did not predict their endorsement of any other hazing rationale. Lu and Wong (2013) identified that Asian American men often attempted to conform to hegemonic masculinity by embodying toughness and dominance, but these individuals are often marginalized by others during their attempts to conform to these ideals. Endorsing social dominance hazing may provide Asian, Native Hawaiian or Pacific Islander fraternity men with forums to enact hegemonic masculinity, boosting their self-esteem and validating their manhood to their peers.

Fraternity house residence status was also related to social dominance hazing rationale, but no other hazing rationale (see Table 4.12). Residents of fraternity houses were predicted to endorse social dominance hazing less than their chapter peers that resided in other locations. This finding is somewhat perplexing, as one would anticipate that residents possess more power than their out-of-house peers (DeSantis, 2007). However, fraternity house residence status may have served as a proxy for other variables. For example, it is common for veteran undergraduate fraternity leaders to live in their chapter houses, while less engaged members may reside outside of these facilities. Scholars have found that fraternity chapter leaders feel obligated to role model more inclusive gender performances, including treating others with fairness and respect (Harris & Harper, 2014). It is possible that the relationship between fraternity house residence status and social dominance may have been better explained by another predictor like fraternity leadership

roles. Future studies should further scrutinize if any links exist between fraternity house residence status and social dominance hazing rationale, or if any other individual-level variables account for this relationship.

Individual masculine norm conformity and hazing rationales. In addition to the relationships among individual characteristics and a member's endorsement of hazing rationales, the results indicate that there were relationships among an individual's conformity to the nine traditional masculine norms identified by the CMNI-46 and these outcomes. Because no prior study has examined the relationships between an individual's adoption of gender norms and support of hazing mentalities, the present study makes important contributions to the literature. Like the models for alcohol consumption behaviors, the multilevel models for the four hazing rationales relied on group-mean centering to examine the relationships among an individual's conformity traditional masculine norms and these mentalities. Thus, these findings were interpreted as the extent to which an individual's conformity to a masculine norm is greater or less than the masculine norm climate of his chapter was related his endorsement of a particular hazing rationale.

Social dominance hazing rationale. The findings indicate that a fraternity member who conforms to violence, risk-taking, heterosexual presentation, power over women, or sexual promiscuity above that of his chapter climate endorsed social dominance hazing more than other fraternity members (see Table 4.15). Violent or risk-taking members may endorse social dominance because they believe that fraternity newcomers must endure physically harsh or dangerous hazing ordeals in order to prove their masculinity. Members that fear femininity may view social dominance hazing as a means to cull newcomer groups to only those individuals who perform hegemonic masculinity. Since fraternity hazing practices may indoctrinate misogyny

and homophobia (Sanday, 1990/2007; Syrett, 2009), fraternity men that conform to these five traditional masculine norms may utilize social dominance hazing to socialize hegemonic masculinity. Because this hazing mentality is grounded in the intent establish a membership hierarchy with an organization (Cimino, 2011), members may be support social dominance hazing to feminize, dehumanize and objectify newcomer to promote their own confidence as men. Oppressing newcomers through hazing may serve as a mechanism for fraternity members that conform to hegemonic masculinity to prove their manhood to themselves and their peers.

Solidarity hazing rationale. The study also found that men that valued taking risks, winning, being perceived as heterosexual, or work more than their chapter peers endorsed a solidarity hazing rationale more than other fraternity members, though magnitude of the relationship between men's conformity to winning and this hazing mentality differed from chapter to chapter (see Table 4.15). Individuals that conform to the norms of risk-taking, winning and primacy of work may jeopardize their own well-being to prove their masculinity to themselves and others. Newcomers and members may view the fraternity newcomer experience as a competition or ordeal that promotes group solidarity through team-oriented efforts to overcome obstacles. Like the safe space that sports provides men to form relationships (Kimmel, 2008), solidarity hazing practices may provide men with opportunities to build close relationships with other men in masculinized environments. Competitive, risk-taking and work-oriented members may be enticed to endorse solidarity hazing because of this viewpoint. However, because the intensity of the relationship between winning and solidarity hazing varied between chapters, future research should attempt to identify specific chapter climates or contextual factors that explain these differences.

Members that are concerned with being perceived as heterosexual more than their chapter peers may desire to foster unified newcomer groups through hazing in order to hide the intimacy that exists within the fraternity chapter from outsiders. Syrett (2009) argued that fraternity men vigorously defend their heterosexual identities to external constituencies. By fostering a consensus among members to keep their close relationships a secret to avoid being perceived as feminine, homophobic men may attempt to protect their status as men.

In contrast to these findings, fraternity men that conformed to emotional control, self-reliance and power over women more than their chapter climates were predicted to endorse solidarity hazing less than other members. Members that conform to these traditional masculine norms may be averse to supporting hazing practices that promote bonding because they believe doing so will jeopardize their standing as men. Fraternity men concerned with concealing their emotions may fear that close relationships formed with other men through solidarity hazing will result in other men challenging their masculinity. Likewise, self-reliant conforming men may view the development of group-oriented relationships as an affront to their independence. Misogynist members may be indignant about the prospect of forming perceived feminine relationships that are beneath their status as men. Thus, solidarity hazing may be perceived as feminine by fraternity members that conform to emotional control, self-reliance and power over women.

Loyalty hazing rationale. An individual's conformity to traditional masculine norms also related to loyalty hazing rationale. The study found that members that conformed to risk-taking, winning, heterosexual presentation and power over women more than their chapter peers endorsed hazing intended to promote commitment to their chapters more than other members (see Table 4.18). The magnitudes of the relationships among winning and power over women,

and loyalty hazing rationale were found to vary between chapters. Other scholars have identified that winning related to the pursuit of power, success and competition, and that risk-taking related to men's desire for adventure (Mahalik et. al, 2003). Men that conform to these masculine norms may intend to use hazing to foster loyalty among fraternity members so they can pursue personal and group-oriented objectives that will signify their manliness (e.g., going through a risky ordeal). By enduring hazing, newcomers earn the trust and respect of these veteran members, and the veterans can be confident that they have the support of their fellow members as they pursue accolades or adventure.

Like the relationship between heterosexual presentation and solidarity hazing rationale, fraternity men that conform to heterosexual and power over women more than their chapter peers may hope to instill newcomers' loyalty to their chapters so they can insulate themselves from scrutiny that would label them as feminine. By fostering commitment to other men in a band of brothers, fraternity members show that they value men above women (Sanday, 1990/2007; Syrett, 2009). In addition, these members need to be confident that their chapter peers will not expose their intimate relationships, and that they are committed to publicly espousing heterosexuality. Thus, for misogynistic and homophobic fraternity members, loyalty hazing may serve as a means to prove and maintain their masculine identities.

Instrumental education hazing rationale. The findings indicate that members that conform to emotional control, self-reliance, primacy of work or power over women more than their chapter peers endorsed an instrumental education hazing rationale less than other members, while those that conform to winning more than their chapter peers endorsed more (see Table 4.21). The negative relationships among traditional masculine norms and instrumental education hazing rationale may be unsurprising, as the literature has found that college men are inclined to

not study, pursue intellectual endeavors, or defy policies and expectations to prove, maintain and protect their masculinity (Edwards & Jones, 2009; Kimmel, 2008). A hazing rationale that support learning about the fraternity's structure and obligations may be viewed as feminine by men that aim to be self-sufficient, those that are misogynists, and individuals that prioritize work over other commitments.

While some fraternity men that conform to hegemonic masculinity may be opposed to hazing that educates newcomers about their organizations, members that are more competitive than their chapter peers may view this education as a means for newcomers to prove their worth to their chapters. In other words, the expectation that newcomers must demonstrate their knowledge of the fraternity's structure and obligations is a competition that can be measured and evaluated by veteran members.

Chapter-level Variable and Hazing Rationales

Chapter masculine norm climates and hazing rationales. The fourth research question examined if fraternity chapter masculine norm climates related to alcohol consumption behaviors and hazing rationales of fraternity men. In response to latter portion of this question, a number of hegemonic masculine norm climates were found to predict the hazing rationales endorsed by fraternity men. While DeSantis (2007) argued that fraternity chapters that rigidly endorsed hegemonic masculinity were more likely to engage in hazing than chapters that allowed more latitude with their gender performances, the present study advances the literature by identifying specific traditional norm climates that related to members' endorsement of four distinct hazing rationales.

Chapter masculine norm climates and social dominance hazing rationale. Four traditional masculine norm climates were found to relate to a member's social dominance

rationale. The findings indicate that members of chapters that perpetuated risk-taking, heterosexual presentation or playboy climates endorsed social dominance hazing more than members of chapters that promoted these climates to a lesser magnitude (see Table 4.12). Members of chapters with these climates may expect that newcomers to prove their manhood by enduring harsh hazing ordeals that confirm their willingness to take risks and that they are not gay. Thus, hazing practices that reinforce an oppressive organizational hierarchy serve as a gatekeeping mechanism that allows men that conform to hegemonic masculinity into their chapters, while keeping individuals perceived to be feminine out (Syrett, 2009). In addition, Kimmel (2008) argued that hazing is utilized by veteran members to prove their masculinity. By supporting hazing practices that asserts their dominance over newcomers, veteran members of chapters with risk-taking, heterosexual presentation or playboy climates may be attempting to perform hegemonic masculinity to demonstrate their manhood to other veteran members and newcomers. Social dominance hazing may serve as means for fraternity newcomers and veterans of risk-taking, heterosexual presentation and playboy chapters to prove, maintain and reinforce hegemonic masculinity.

In contrast to these findings, the study found that members of fraternity chapters with violence climates endorsed social dominance hazing less than members of other chapters (see Table 4.12). While this finding may be surprising, it may indicate that veteran members may be concerned that asserting their dominance over newcomers may result in these newcomers retaliating with violence. In the event that these retaliations were successful (e.g., a newcomer fights and injures a veteran member), then these actions may jeopardize veteran members' masculinity. Thus, in chapters where fighting and other violent acts are acceptable, members may be unsupportive of social dominance hazing out of concern for their identities as men. In

addition, fraternity members of violent chapters may be concerned about the outcomes of social dominance hazing. For example, scholars have argued that hazing may result in disunity with an organization (Allan & Madden, 2008). Though a violence climate did not relate to solidarity or loyalty hazing rationales in this study, members of violent climates may avoid social dominance hazing practices because rather that fostering discord, they hope that their chapter peers will be by their side during violent escalations.

Risk-taking chapter masculine norm climate and solidarity and instrumental education hazing rationales. As with social dominance hazing rationale, members of chapters with risk-taking climates were found to endorse solidarity and instrumental education hazing rationales more than their peers in chapters that promoted risk-taking to a lesser extent (see Tables 4.15 and 4.21). The literature indicates that arduous or abusive hazing practices may foster group dependence (Cimino, 2011; Keating et al., 2005), and DeSantis (2007) identified that fraternities that promoted hegemonic masculine climates often attempted to emulate military boot camp practices in their newcomer practices. Chapters that have members who collectively conform to risk-taking may endorse solidarity hazing because they believe that risky hazing ordeals promote bonding between newcomers in ways that are distinctly masculine in mature.

The relationship between risk-taking climate and instrumental hazing education is more perplexing. However, instrumental education hazing practices are not only used by organizations to help to newcomers learn about the structure and obligations of fraternity members, but to understand the norms associated with chapter membership. Members of risk-taking fraternity chapters may view newcomer education as a mechanism to discipline and reinforce hegemonic masculinity, and in particular, risk-taking gender performance (e.g., learning how to drink like a fraternity man). As Sanday (1990/2007) argued, hazing may serve to socialize hegemonic

masculinity in fraternities. Future research should more closely examine the relationship between members of chapters with risk-taking climates, and their endorsement of instrumental education hazing.

Masculine norm climates and loyalty hazing rationale. None of the nine traditional masculine norm climates predicted a member's endorsement of loyalty hazing at statistically significant levels (see Table 4.18). However, it is important to note that the inclusion of risk-taking, wining, emotional control, heterosexual presentation and power over women climates in the final loyalty hazing rationale HLM model explained 34.54% of the variance between chapters. Though the relationships were not statistically significant, hegemonic masculine norm climates may explain some of the between-chapter differences in members' endorsement of loyalty hazing rationale. Because individual-level masculine norms predicted loyalty hazing, a member's concern about fostering newcomer loyalty appears to be related more to within chapter differences in gender performances than the differences in the gendered climates perpetuated by the chapters. Scholars should continue to examine the relationships among loyalty hazing rationale and chapter masculine norm climates to either replicate or refute these findings.

Contextual factors and hazing rationales. In addition to masculine norm climates, two of the contextual variables included as covariates related to three of the hazing rationales. Chapter size was found to positively relate to a member's social dominance hazing rationale (see Table 4.12) and negatively relate to his instrumental education hazing rationale (see Table 4.21). Members of fraternity chapters with larger membership may be more inclined to endorse social dominance hazing because it may be easier to objectify and dehumanize newcomers in chapters where it is not possible to foster close relationships with other members. In addition, DeSantis (2007) argued that larger chapter size was emblematic of power and hegemonic masculinity.

Members of larger chapters may endorse social dominance hazing because it serves to protect the power they possess by performing and shaping the hegemonic masculinities on their campuses. Newcomers that want to prove themselves as real men in these more powerful organizations must prove their manhood before being bestowed this recognition by their peers.

In contrast, chapter size may be negatively related to the instrumental education hazing rationale for several reasons. First, chapters with larger membership may have more complex organizational structures. The power and knowledge to govern these groups may rest with a small number of student leaders. In these groups, it is not vital that all members understand the intricacies of the fraternity, and a typical members may endorse other hazing practices that aim to achieve other outcomes (e.g., instill organizational hierarchy). In addition, Edwards and Jones (2009) found that breaking rules served as a means for college men to perform masculinities. Members of larger chapters that perpetuate hegemonic masculinity may rebuff educating individual about the obligations of membership in their organizations as doing so is perceived to be feminine.

Members of a fraternity with a chapter house were predicted endorse solidarity hazing less than members from chapters without houses (see Table 4.15). This finding suggests that members of chapters with fraternity houses may be less concerned with instilling solidarity among newcomers than those without houses because their facilities serve as a central gathering and bonding location for members. In other words, the fraternity house is viewed as the bonding mechanism, and the facility may play a fundamental role in the masculine identities of fraternity men. Members of chapters without houses, compensating of their lack of a facility, may endorse solidarity hazing because they view hazing practices as a fundamental means to promote newcomer unity.

Investiture Socialization as a Cross-level Moderator

The fifth research question related to investiture socialization was not investigated for alcohol use because none of the relationships among the members' masculine norms and alcohol consumption behaviors varied across the population of chapters. In other words, the findings suggest that members that conform to violence, risk-taking, winning, heterosexual presentation or playboy more than their chapter norm climates are predicted to be heavier drinkers regardless of their chapter affiliations. Those that conform to primacy of work are predicted to drink less irrespective of their chapter membership.

The fifth research question, if investiture socialization climate moderates the relationships between individual masculine norm adoption and members' problematic behaviors or attitudes, was explored for two relationships between men's conformity to masculine norms and their hazing rationales. Investiture socialization climate was not found to moderate the relationship between a fraternity member's conformity to winning more than his chapter peers and his endorsement of solidarity hazing rationale (see Table 4.23). In addition, investiture social climate was not found to moderate the relationship between a fraternity member's conformity to winning more than his chapter peers and his endorsement of loyalty hazing rationale (see Table 4.25). Thus, whether the collective membership of a fraternity chapter employed tactics to affirm or disaffirm newcomers' identities did not explain the differences in the magnitude in the relationships between individual winning and solidarity or loyalty hazing between chapters. It is important to note that while the relationship between individual power over women and loyalty hazing varied between chapters in the initial HLM models, power over women was not a statistically significant predictor of this hazing rationale upon the inclusion of investiture socialization.

Future scholarship should attempt to understand how and why fraternity members that are more competitive than their chapter peers endorse solidarity and loyalty hazing differently from chapter to chapter. These findings may be symbolic of the fact that fraternity men pursue winning differently from chapter to chapter. For example, some chapters may endorse competitive jock mentalities, and scholars have identified that jock identity moderates the relationship between an individual's conformity to traditional masculine norms and substance use (Miller, 2008). Competition may be enacted differently between fraternity chapters, and these differences may explain the variance in magnitude in the relationships between winning and solidarity or loyalty hazing rationales.

Summary of Findings

This study enriches the literature on college men and masculinities in several important ways. Fundamental to the purpose of the study, the findings indicate that specific fraternity chapter tradition masculine norm climates predict individual members' alcohol consumption behaviors and endorsement of four hazing rationales after accounting for members clustering into fraternity chapters. No prior study had linked specific masculine norm climates of fraternities to members' behaviors and attitudes across a large, international sample of undergraduates. In addition, these findings bolster those of existing qualitative research had argued that members of fraternity chapters that perpetuate hegemonic masculinity were more likely to engage in problematic behaviors and adopt concerning attitudes (DeSantis, 2007).

Four traditional masculine norm climates perpetuated by fraternity chapters related to one or more of the outcomes in this study. Controlling for other covariates, the collective conformity to heterosexual presentation by members of the same chapter predicted an individual's alcohol consumption behaviors and endorsement of social dominance hazing rationale (see Table 4.8 and

Table 4.12). Similarly, fraternity chapter playboy climate related to a member's endorsement of social dominance hazing. Members of these chapters may engage in heavy drinking or are motivated to endorse social dominance hazing in order to earn or validate their identities as men by proving that they are not feminine (DeSantis, 2007; Kimmel, 2008; Syrett, 2009). These members may also endorse social dominance hazing because it requires newcomers to prove their toughness, and may serve as gatekeeping mechanism to keep feminine behaviors out of the organization (Syrett, 2009). Thus, in fraternity chapter where there are heightened concerns about being identified as gay or feminine, alcohol use and endorsement social dominance hazing may serve as demonstrations of one's masculinity.

While the risk-taking climate of a fraternity chapter did not predict members' alcohol consumption behaviors, it was found to predict a member's endorsement of social dominance, solidarity and instrumental education hazing rationales after controlling for other covariates (see Tables 4.12, 4.15 and 4.18). Vandello and Bosson (2013) argued that the "…ideal markers of manhood should be verifiable behaviors that are hard to fake and are perhaps even costly to the actor because they signal to others that one's manliness is genuine" (p. 105). Therefore, in fraternity chapters that perpetuate risk-taking climates, enduring and inflicting hazing may be perceived as irrefutable proof of manhood (Kimmel, 2008). In addition, risky hazing-based newcomer activities may be perceived as masculine ways to promote newcomer solidarity, and to educate newcomers about the norms and expectations of chapter membership.

The violence climate perpetuated by a fraternity chapter also predicted a member's endorsement of social dominance hazing rationale after controlling for other covariates, but it was found to have a negative relationship (see Table 4.12). While a bit surprising, this finding may indicate that members of chapters where members collective conform to violence realize

that social dominance hazing practice may result in violent uprisings from newcomers that challenge their manhood. In other words, social dominance hazing is avoided by veteran members in order to preserve their status as men. In addition, members of chapters with violence climates may be less likely to endorse social dominance hazing because, in a gang-like mentality, these men accept their chapter peers to come to their aid during a fight or other violent acts.

The findings from this study add to the literature by not only identifying that fraternity members' conformity to nine traditional masculine norms varied between fraternity chapters, but also providing a richer understanding of the extent to which members' conformity was attributable to this variance. These results support the findings from other studies that identified that fraternity's gender performances varied from chapter to chapter (DeSantis, 2007), and that not all fraternity men adhere to hegemonic masculinity (Anderson, 2008; Harris & Harper, 2014). While some fraternity chapters may promote hegemonic masculinity, the hegemonic conceptualization of "fraternity man" may not be a stable construct across a single national fraternity. It is particularly noteworthy that men's adoption of norms associated with a fear of femininity or competition – heterosexual presentation, power over women, playboy, winning – were found to have the greatest between chapter differences. As asserted by Anderson (2008), these findings may indicate that fraternity men in certain chapters may be less concerned about being perceived as gay or feminine than members in other chapters. Similarly, men in particular fraternity chapter may feel greater pressure to prove or reinforce their manhood through competition.

Though the primary purposes of the study were to examine the extent to which individual members' conceptualizations of masculinities varied between fraternity chapters, and to identify if relationships existed among the masculine norm climates perpetuated by fraternity chapters

and individual members' alcohol consumption behaviors and their endorsement of four hazing rationales, the study also had several important auxiliary findings related to members' alcohol use and endorsement of hazing rationales. Turning to the individual-level findings, the results suggest that higher level of conformity to particular masculine norms more than their chapter climates related to increased or decreased alcohol consumption, and increased or decreased endorsement of the four hazing rationales (see Tables 4.8, 4.12, 4.15 and 4.18). While a detailed discussion of these results with not be rehashed, it is worth noting that these results support the literature that has found relationships between college men's conformity to traditional masculine norms and their alcohol use (Iwamoto et al., 2011; 2014), and add much need depth to the literature on hazing. In addition, these findings indicate that fraternity members are socialized to perform gender by a variety of experiences and context that include, but are not limited to their fraternity membership (Addis, Mansfield, & Syzdek, 2010).

Other than individual conformity to masculine norms more than one's chapter climate, the study also identified that other demographic characteristics relates to alcohol consumption and endorsement of hazing rationales. Freshmen were predicted to have lower alcohol use than other fraternity members, but they were predicted to endorse solidarity, loyalty and instrumental education hazing rationales more than their peers. In addition, freshmen's alcohol use was found to vary from chapter to chapter, but these differences were not found among other class cohorts. Thus, alcohol may be a ubiquitous aspect of fraternity gender socialization, and more veteran members may rely on alcohol to prove their status as men (Sasso, 2015). In turn, freshmen may cling to hazing rationales because they desperately want to believe that the hazing they endured validated their manhood.

In addition to class year, the findings suggest that Asian, Native Hawaiian and Pacific Islander men engaged in less problematic alcohol use than other fraternity men, but endorsed social dominance hazing rationale more their peers. As noted by Sweeney (2014), the collegiate party discourse that is fueled by alcohol is tied to White masculinity, and it may marginalized men of color. Endorsing social dominance hazing may provide one of the few avenues for Asian, Native Hawaiian and Pacific Islander to assert their manhood in predominantly White fraternity chapters.

Implications

Research Implications

The findings from the study provide direction for future research on gendered climates in higher education, the socialization of gender, alcohol use and hazing attitudes among college students and other populations, and the fraternity member experience. Because the results indicate that the traditional masculine norm climates perpetuated by men's college fraternities relate to members' heavy drinking and motivations to engage in hazing, scholars should conduct research the examine the gendered climates maintained by other higher education groups and communities, and the relationships among these group climates and the outcomes of group members. For example, DeSantis (2007) argued that, like fraternities, the gender performances differed between sorority chapters, and members of chapters that promoted more rigid traditional feminine norms were more likely to engage in problematic behaviors. Researchers could utilize the Conformity to Feminine Norms Inventory developed by Mahalik and colleagues (2005) to examine if sorority traditional feminine norm climates varied between chapters, and, if so, if these norm climates related to the alcohol use and hazing rationales endorsed by sorority women. Researchers may not only want to utilize the multilevel designs employed for this study to

investigate the gender norm climates of fraternities and sororities, but these models could be used to understand the relationships among gender norm climates in other student groups or athletic teams, graduate program cohorts, academic departments, living and learning communities, or even between institutions, and individuals' behaviors. Studies of this nature could advance knowledge about how gender is performed within higher education.

The implications from the findings extend beyond research on gender climates within the colleges and universities. Because gender socialization begins before students even enter college (Harris, 2010), scholars should identify opportunities to examine the relationships of the gendered climates young children and adolescents cluster in during their development (e.g., youth sports) and particular concerning behaviors or attitudes. Research may also want to examine the gender climates of corporations, military units, gangs and other entities that may affect the behaviors and attitudes of individuals throughout their lifetime.

In addition to expanding the scope of the research on gendered climates, the findings of the study did not address if the fraternity chapter masculine norm climates relate to changes in members' alcohol consumption behaviors and endorsement of hazing rationales during their undergraduate experiences. In other words, how, if at all, do chapter masculine norms climates influence members' socialization to heavy drinking and support of hazing rationales? DeSantis (2007) argued that men prone to engage in problematic outcomes gravitated toward and were offered membership in chapters with more rigid conceptualizations of masculinity, but that the masculine climates continued to shape their behaviors. Longitudinal research is need to understand the extent to which membership in fraternities with varying masculine norm climates affects these outcomes from the time men join their chapter to well after they graduate from college.

Similar to the longitudinal research needed on the relationships among fraternity gender norm climates and members' alcohol use and endorsement of hazing rationales, the findings also illustrate the need for research on the gender socialization of fraternity men. While the results indicate that fraternity men's conformity to masculine norms varies between chapters, little is known about the discursive practices fraternity chapters use to influence men's gender performances. Researchers should consider longitudinal designs examine how membership in specific fraternity chapters socializes men to conform to or rebut hegemonic masculinity. Like the suggested research on the socialization of alcohol use and hazing rationales, scholars should begin their examinations before men begin their newcomer experiences in fraternities and continue these studies well after these men continue to be active members of these organizations.

The findings from this study also have implications for future research on the fraternity membership experience. While most prior studies on fraternities have viewed this population as a monolith, the results from this study indicate that the outcomes of fraternity members differ based on their individual characteristics and experiences, and their chapter context. Researchers should attempt to disaggregate the fraternity experience in their studies, and individuals should understand the limitations and be skeptical of research on this population that does not account for the within and between chapter differences in fraternity experience. Researchers should also develop national sets that disaggregate the fraternity and sorority experience (Biddix et al., 2014)

The individual-level findings in the study also indicate that self-esteem, shame and other emotional dispositions relate to members gender performativity and their problematic outcomes. For example, the relationships between freshman status and a member's endorsement of hazing rationales may be indicative of their lower self-concept compared to more veteran peers. Scholars have found associations between self-compassion, masculine norm conformity, self-

esteem and shame (Reilly, Rochlen, & Awad, 2014), and future research should examination the associations among the emotional dispositions, gender performances, and problematic outcomes of fraternity men.

As argued by Biddix and colleagues (2014), the results should encourage scholars to examine other between group differences in the fraternity experience. For example, while this study relied on a census of undergraduate members from a predominantly White men's fraternity with chapters located at higher education institutions across the United States and Canada, scholars should examine between group differences in national culturally-based fraternities that have membership composed predominantly of students of color, or the between group differences of fraternity chapters from different national organizations located at single institutions.

Because of the identified chapter clustering in this study, future research should also examine other levels of clustering that may affect the fraternity experience. Identifying and accounting for other clustering, even with small intraclass correlation coefficients, reduces the error in future multilevel models (Raudenbush & Bryk, 2002). For example, scholars could study fraternity members clustered in different chapters clustered in different higher education institutions, or fraternity members clustered in different chapters clustered in different national fraternities. Studies of this kind would advance knowledge on fraternity members, as no literature exists on fraternity membership based on three-level HLM models.

All of the final multilevel models in this study were left with statistically significant portions of between group variance that remained unaccounted for by the included chapter-level variables. In other words, while the traditional masculine norm climates of chapters explained some of the differences in members' alcohol use and endorsement of hazing rationales, other

variables could be added to explain more of these differences. Future research should examine the relationships of other chapter-level variables and members' alcohol use and hazing attitudes. In particular, scholars may want to explore how other chapter substructures and cultures related to power relate to these outcomes. In addition to gender, other racializing and class codifying processes shape organizations and their members (Acker, 2012). Scholars should examine the relationships of chapter substructures and climates related to race, class and other marginalized identities that may relate to members' heavy drinking and support of hazing rationales.

Practical Implications

The findings from the study have a number of implications for higher education administrators and other stakeholders that work with undergraduate men. The study found that the fraternity men's conformity to masculinities, and their behaviors and attitudes differed among individuals and between fraternity chapters at different institutions. For example, a White senior fraternity man who is a member of a homophobic chapter may be more of a heavy drinker than an Asian first year student who is a member of a fraternity chapter that is more accepting of men regardless of their sexual orientation. While the findings support past assertions that hegemonic masculinity is embedded in men's social fraternities (e.g., Sanday, 1990/2007), not all fraternity men conform to traditional masculine norms to the same extent. Higher education administrators and other stakeholders should be skeptical of conceptualizations of the stereotypical "fraternity man", and understand that the masculinities and behaviors of fraternity members vary between individuals, between fraternity chapters, and probably between institutions. Yet, practitioners must continue to aware that hegemonic masculinity is entrenched in college fraternities. To effectively address hegemonic masculinity and mitigate the

problematic behaviors and attitudes of fraternity men, it is imperative that administrators and other stakeholders understand that monolithic intervention strategies may be ineffective, or worse, counterproductive, because of individual and organizational differences in the conceptualization of gender.

In particular, higher education administrative leaders are increasingly relying on campus-wide bans or suspensions to suppress the bad behaviors and troubling outcomes associated with fraternity men (New, 2014b; Monaghan, 2017). However, these punitive campus-wide crackdowns may be ineffective at addressing these concerns, because they do not address the underlying masculine norms adopted by fraternity men (Monaghan, 2017), nor account for the variance in fraternity masculinity at individual or organizational levels. In addition, because violating the terms these bans or suspensions may be attractive to members of chapters with risk-taking masculine norm climates, these punitive measures may exacerbate the issues associated with fraternity membership as members of these chapters attempt to validate their manhood. These organizations may also only become more attractive to risk-taking newcomers at the issuance of bans or suspensions.

In addition, the findings from this study do not support the recommendations of prior scholarship on fraternities that endorse banning alcohol from fraternity houses, as there was no significant difference in the alcohol consumption behaviors of fraternity house residents and nonresidents after controlling for students' class years, and racial and ethnic identities. This finding supports prior research that found no differences between the alcohol use of fraternity men in alcohol-free or alcohol-allowed fraternity houses (Brown-Rice & Furr, 2015; Crosse et al., 2006). Like campus-wide bans and suspensions, it is likely that alcohol bans may only aggravate the heavy drinking of fraternity men that conform to hegemonic masculinity, and push

alcohol use into the fringes of campus and surrounding communities. Alcohol bans may also lead to alcohol-related consequences for fraternity members and their associates, as self-reliant fraternity men may be resistant to getting help in lieu of the potential punitive reactions that may result from any alcohol-related incident.

Another monolithic strategy utilized by higher education administrators to address the concerning outcomes associated with fraternity members is deferring fraternity and sorority newcomer recruitment efforts until the spring of a students' first year or later in the undergraduate careers. However, no research supports or refutes the merits of these policies (Biddix et al., 2014). Instead of blanket deferred membership policies, administrators, national fraternity representatives and even undergraduate fraternity leaders should consider establishing protocols to evaluate and screen potential fraternity newcomers based on their conformity to traditional masculine norms. For example, an institution could require or incentivize all potential fraternity newcomers to participate in a masculine norm screening, similar to the alcohol screenings provided at some institutions. Individuals that report conformity to particular traditional masculine norms at high levels could receive invitations to participate in counseling or other interventions intended to challenge their conformity or foster dialogues about their motivations to join fraternities. Strategies of this nature may be more effective at mitigating the problematic behaviors associated with fraternity membership than simply deferring the time period to join fraternities.

The findings from this study also may foreshadow that administrators' attempts to require single gender fraternities or similar student clubs to become gender neutral organizations, like those underway at Harvard University, may fail to change the behaviors of members. While these efforts may change the gender composition of these groups, they may do little, if anything,

to address the underlying gender norm climates of college fraternities or other single gender organizations. Thus, traditional masculine norm climates and troubling outcomes associated with these climates may persist regardless of the gender identities of fraternity members. If anything, efforts to promote less rigid conceptualizations of traditional masculinity in men's fraternities may result in more chapters electing to become gender neutral organizations at their own volition.

Instead of relying on monolithic interventions like campus-wide fraternity suspensions, higher education administrators and other stakeholders should consider individually- and organizationally-tailored developmental interventions that promote a student's awareness of their gender performances and that support and challenge fraternity men to perform gender less rigidly. Prior to the development of any interventions, it is imperative that practitioners understand how gender is conceptualized at their institutions, within their fraternity communities, within individual fraternity chapters, and among fraternity men. Higher education administrators concerned about the problematic behaviors or attitudes of fraternity men at their institutions should find ways to assess how fraternity masculinity is conceptualized among individuals and within the aforementioned microsystems. Only then will these professionals be able to design and implement intervention strategies that may challenge and deconstruct the prototypical "fraternity man" identity at their institutions.

The findings from the study may be particularly useful for higher education administrators and other stakeholders who hope to design and implement preventative interventions to address the heavy drinking and hazing attitudes of fraternity men. While homophobic, misogynistic and risk-taking fraternity chapter cultures are already of paramount concern to faculty, staff and other higher education stakeholders, these environments may be

indicative of members' heavy drinking and endorsement of social dominance, solidarity or instrumental education hazing rationales. Because these climates are rooted in a fear of femininity, practitioners should consider targeted interventions that challenge these traditional masculine norms by destigmatizing intimacy between men. For example, campuses could host chapter-specific workshops that provide forums for fraternity members to be vulnerable with one another. This strategy may be particularly effective to mitigate members' alcohol use and support solidarity hazing, as both may serve as means for members to form close relationships with their fellow fraternity brothers. Thus, interventions that address normative perceptions of gender, and in particular masculinity, may also allay other troubling outcomes associated with fraternity membership.

Because hazing-prone fraternities are notoriously difficult to identify because of their secrecy (Sweet, 1999), chapters that espouse homophobia, misogyny and risk-taking could be flagged by higher education administrators and other stakeholders as potential hazing-endorsing sites. For example, a fraternity chapter that proudly wears a misogynistic newcomer recruitment t–shirt with a troubling slogan may also harbor members that endorse hazing. Instead of reacting to the aftermath of hazing incidents, practitioners could identify at-risk chapters, and design specific organizational interventions to address the traditional masculine norm climates of these groups and the hazing attitudes of their members. Doing so may prevent some hazing-related tragedies.

Practitioners may also want to consider social norm campaigns designed to challenge normative conceptualizations of hegemonic masculinity in fraternities. These efforts could be targeted at particular fraternity chapters or members. Other scholars have argued that social norming campaigns may help challenge men's beliefs about normative men's health behaviors

(Mahalik, Burns, & Syzdek, 2007), as these interventions have been found to reduce risky behaviors (Lundahl, Kunz, Brownell, Tollefson, & Burke, 2010). It is possible that targeted social norm campaigns could be implemented to rebuff the conformity to hegemonic masculinity among fraternity men and foster less rigid conceptualizations of gender among fraternity men. For example, practitioners could create a marketing campaign that features fraternity men who rebuke traditional masculine norms (e.g., displaying vulnerability). Celebrating fraternity men for their unsung gender performances man force members to reflect on and change their own conceptualizations of manhood.

Many current interventions that address alcohol use and hazing within fraternities target fraternity newcomers (e.g., requiring newcomers to participate AlcoholEdu or GreekEdu) (Everfi, n.d.). However, because of the findings in this study that indicate that alcohol use and hazing attitudes vary by class year, practitioners may want to develop alcohol and hazing prevention initiatives targeted at specific grade levels. Interventions limited to first year students may be particularly ineffective because, as is evident in the study, these members may lack power in their chapters. Regardless of their desire to change their behaviors, these men may continue to drink or endorse hazing in order to receive validation from their peers about their status as men. Interventions targeting juniors and seniors may be particularly important, because these fraternity members were identified to be the heaviest drinkers and to endorse solidarity, loyalty and instrumental hazing rationales less than freshmen and sophomores. These upperclassmen may be unaware that other members are skeptical about the intended outcomes of hazing practices, and they may have the standing their chapters to effectively challenge hazing. In addition, these more veteran members may fuel the alcohol use cultures of their chapters by role modeling this masculine-perceived performance. By challenging their alcohol use behaviors

and conceptualizations of manhood, practitioners may also affect the heavy drinking and norms of other members.

Men and masculinity scholars have argued that role models influence the masculine socialization of college men (e.g., Harris, 2010). The role modeling of masculinities in fraternities may be particularly relevant. Most fraternities assign veteran members as mentors to organizational newcomers (e.g., big brother programs), but these initiatives are seldom organized with students' learning and development in mind (Biddix et al., 2014). These mentor/mentee relationships are often formed around alcohol, and the fraternity risk reduction organization FIPG Inc. (2013) asserted that big brother/little brother events are often among the most high-risk for fraternities. The restructuring of these mentoring programs may serve as an effective mechanism for higher education administrators and national fraternity representatives to deconstruct hegemonic masculinity within fraternities. Mentoring programs should be designed with careful consideration regarding the selection of newcomer mentors that disconform from traditional masculine norms. These mentors should receive training that will allow them to support the masculine identity development of their mentees. Restructuring these mentorship programs may play a critical role in reshaping fraternity masculinities.

Practitioners should also consider how other fraternity role models reinforce or challenge the masculine climates perpetuated by fraternities. For example, many fraternity chapters are supported by volunteer chapter or alumni advisors that are appointed by institutions or national fraternities to mentor fraternity men and to assist chapter to achieve long-term goals (e.g., Sigma Phi Epsilon, n.d.). While these advisors may be expected to align their actions with the values and policies of institutions or national fraternities, little consideration is given to how these individuals perform gender. Like newcomer mentors, individuals that select these advisors

should consider candidates; conformity or disconformity to masculine norms in their selection processes. These advisors should also receive training related to gender performativity and the gender socialization of young men.

It is important for practitioners to understand that the alcohol use behaviors and hazing attitudes of fraternity men may vary based on students' racial and ethnic identities. As asserted by Sweeney (2014), alcohol use may be fundamentally tied to privileged, White masculinities in college fraternities. The heavy drinking climates of historically White fraternities like Philadelphian Fraternity may marginalize men of color that elect to join these student organizations, but who do not perform masculinity as vigorous as their White peers through their alcohol use. By challenging the alcohol use behaviors of fraternity men, but particularly White members, administrators may be able to begin to address structural inequities in fraternities that oppress men of color. Administrators and other stakeholders should identify opportunities to make students aware of and deconstruct White fraternity masculinities to promote more inclusive organizations.

Practitioners should also recognize that Asian, Native Hawaiian and Pacific Islander fraternity men may drink significantly less than their chapter peers, but endorse social dominance hazing more than their fellow members. Higher education administrators may want to design interventions that specifically address how Asian, Native Hawaiian or Pacific Islander fraternity men perform masculinity, and challenge conceptualizations that may relate to social dominance mentalities.

It is also important for higher education administrators and other stakeholders to consider the implicit and explicit structures that shape the conceptualization on gender performativity within chapters, national fraternities, and institutions. Of particular note, stakeholders may want

to challenge the hierarchical nature of college fraternities that subjugate individuals and reinforce power. Some fraternities have moved to becoming less hierarchical by eliminating the new member or pledge experience, and providing immediate full membership to newcomers (e.g., Sigma Alpha Epsilon, 2014). Yet, problematic outcomes like hazing continue even in organizations that have ended these official newcomer periods (Parks et al., 2015). Higher educational administrators should identified opportunities to reduce hierarchy in college fraternities that may promote rigid conceptualizations of gender.

In addition to addressing the hierarchies that exist in college fraternities, practitioners should challenge other structures that reinforce hegemonic masculinity. For example, while national fraternities did away with subordinate "little sister programs" that offer auxiliary membership to women in or around 1990 (e.g., Alpha Sigma Phi, n.d.), many continue to promote pageant-like "sweetheart programs" for women (e.g., Sigma Chi, n.d.). These programs promote heteronormativity and objectify women, and reinforce hegemonic masculinity in college fraternities. At an institutional-level, more and more campuses are charging students fraternity and sorority membership fees in addition to other tuition and campus fees. At the University of South Carolina (n.d.), fraternity and sorority members are required to pay a $50.00 Greek activity fee, and another $250.00 Greek Village fee if their fraternity maintains an on-campus fraternity house. These fees may be a membership deterrent to men from lower socioeconomic background that may include many men of color. By maintaining these fees and suppressing the membership of marginalized students, institutions may implicitly endorse hegemonic masculinity in fraternities. In addition to these examples, administrators should be cognizant of the ways that fraternity terminology, symbols, material goods and environments shape the gender performances of men at their institutions. Higher education professionals should assess and

address the gendered structures and cultures within chapters, national fraternities at their institutions that perpetuate fraternity men's conformity to hegemonic masculine norms.

Because chapters with larger memberships were predicted to have members that endorse social dominance hazing, higher education administrators and national fraternity representatives may want to consider policies or interventions that limit or reduce the size of these chapters. These efforts may include setting caps on the number of newcomers a fraternity can initiate during an academic year, to educating chapters about the potential benefits of smaller organizations (e.g., more intimate organizational setting). Some fraternity members may view high newcomer recruitment yields as a quantifiable means to gain power and prestige over other fraternities (i.e., it may serve as a means to compete and win). Higher education administrators should consider hosting authentic conversations among chapter leaders at their institutions about recruitment and membership size that may diminish interfraternity competition.

Harris and Harper (2014) found that many fraternity undergraduate leaders do not conform to hegemonic masculinity. Yet, many higher education fraternity and sorority life (FSL) professionals utilize hierarchical advising models that restrict their routine contact with fraternity chapters to only fraternity and sorority chapter presidents. In other words, FSL professionals may not fully grasp how gender is performed at their institutions or within their national organizations, or at worst, they may have inaccurate perceptions about the masculine climates perpetuated by fraternity chapters. FSL professionals should consider revising their advising models so they can actively engage a variety of members from fraternity chapters. In addition, these professionals and other higher education administrators should routinely examine and explore the gender norm climates perpetuated by fraternities on their campuses.

In addition to engaging a variety of members and attempting to understand how masculinity is performed within their communities, FSL professionals and other higher education administrators should receive training about gender identity development that includes information about working with and supporting college men. Because of the gendered nature of fraternities, higher education senior leaders should recruit and retain administrators that work with fraternity members and other college men in FSL, the counseling center, health promotion and violence prevention centers that are knowledgeable about men's identity development (Monaghan, 2017).

Conclusion

As the first large-scale international study of traditional masculine norm climates, the findings indicate that fraternity men's conformity to hegemonic masculinity varied between fraternity chapters, and that the traditional masculine norm climates perpetuated by chapters predicted members' alcohol use and endorsement of hazing rationales. As an exploratory study, these findings provide a foundation for additional research on gender norm climates, the deconstruction of fraternity masculinity, and college student alcohol use and hazing motivations. Efforts to investigate and address traditional masculine norm climates may provide a fruitful avenue to mitigate the problematic behaviors and attitudes of college men and other individuals who conform to hegemonic masculinity.

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Appendix A:

Selected Conformity to Masculine Norms (CMNI) – 46 Items

Primacy of Work: My work is the most important part of my life
Strong disagree (0) Disagree (1) Agree (2) Strongly Agree (3)

Risk-taking: In general, I do not like risky situations (reverse coded)
Strong disagree (0) Disagree (1) Agree (2) Strongly Agree (3)

Heterosexual Presentation/Disdain for Homosexuals: It would be awful if someone thought I was gay
Strong disagree (0) Disagree (1) Agree (2) Strongly Agree (3)

Power over Women: I love it when men are in charge of women
Strong disagree (0) Disagree (1) Agree (2) Strongly Agree (3)

Emotional Control: I like to talk about my feelings (reverse coded)
Strong disagree (0) Disagree (1) Agree (2) Strongly Agree (3)

Playboy: I would feel good if I had many sexual partners
Strong disagree (0) Disagree (1) Agree (2) Strongly Agree (3)

Violence: I believe that violence is never justified (reverse coded)
Strong disagree (0) Disagree (1) Agree (2) Strongly Agree (3)

Self-Reliance: I never ask for help
Strong disagree (0) Disagree (1) Agree (2) Strongly Agree (3)

Winning: Winning isn’t everything, it’s the only thing
Strong disagree (0) Disagree (1) Agree (2) Strongly Agree (3)