Social Identity and Social Learning Factors as Predictors of Intergroup and Intragroup Social Aggressiveness in College Sororities

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SOCIAL IDENTITY AND SOCIAL LEARNING FACTORS AS PREDICTORS OF INTERGROUP AND INTRAGROUP SOCIAL AGGRESSIVENESS IN COLLEGE SORORITIES

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Presented to the Faculty of Social Sciences University of Denver

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ABSTRACT

Using social identity theory (Tajfel & Turner, 1979) and social learning theory (Bandura, 1977) as theoretical guides, the main objective of the present study was to determine if individual and group identity factors—unstable self-esteem, narcissism, sorority member intragroup status, collective narcissism, sorority intergroup status, sorority intergroup social aggressiveness, and sorority intragroup social aggressiveness—were predictive of young adult females’ intergroup and intragroup social aggressiveness in college sororities. Participants for the present study included (N= 222) young adult females who are current members of college sororities in the United States. Path analysis revealed that many individual identity and group identity factors predict young adult females’ intergroup and intragroup social aggressiveness in college sororities. Although higher levels of unstable self-esteem did not predict higher levels of young adult females’ intergroup social aggressiveness, higher levels of unstable self-esteem were predictive of higher levels of young adult females’ intragroup social aggressiveness. Similarly, higher levels of narcissism did not predict higher levels of young adult females’ intergroup social aggressiveness but were predictive of higher levels of young adult females’ intragroup social aggressiveness. Higher levels of collective narcissism and higher levels of sorority intergroup status were predictive of higher levels of young adult females’ intergroup social aggressiveness. However, higher levels of sorority member intragroup
status did not predict higher levels of young adult females’ intragroup social aggressiveness. Additionally, higher levels of sorority intergroup social aggressiveness were predictive of higher levels of young adult females’ intergroup social aggressiveness, whereas higher levels of sorority intragroup social aggressiveness were predictive of higher levels of young adult females’ intragroup social aggressiveness. However, the mediation in the present study was not supported. Specifically, higher levels of sorority intergroup status did not predict higher levels of sorority intergroup social aggressiveness, which did not predict higher levels of young adult females’ intergroup social aggressiveness. Implications for these findings, as well as limitations and suggestions for future research are offered.

Keywords: social aggression, social identity theory, social learning theory, college sororities
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CHAPTER ONE: INTRODUCTION

Women are mean to other women at all ages. Women putting down other women doesn't stop after high school -- how about in college, when in a sorority, mean girl behavior exists aplenty? I can admit there were times when I said mean things about potential members of my sorority, or girls older or younger. I loved my sorority dearly, but I recognize that a big group of girls, an organized clique, can be dangerous. (Fineman, 2011, February 19)

The above excerpt is insightful because it draws attention to mean behavior in college sororities that casts a dark shadow over the bright side of sororities. According to Robbins (2004), “much of sorority life espouses noble purpose” through the friendships and philanthropy these organizations encourage, which “can enhance a girl’s college experience, boost her self-esteem, and better her character” (p. 11). However, Fineman’s (2011) blog about mean girl behavior in college sororities, films such as Sydney White (2007), and research by Dellasega (2005) and DeSantis (2007) paint a very dark picture of sorority life that includes social aggression.

Social aggression is defined as behavior that is, “directed toward damaging another’s self-esteem, social status, or both, and may take such direct forms as verbal rejection, negative facial expression or body movement, or more indirect forms such as slanderous rumors or social exclusion” (Galen & Underwood, 1997, p. 589). Often linked with other conceptualizations, such as relational aggression (Crick & Grotputer, 1995) and indirect aggression (Archer & Coyne, 2005), social aggression includes behaviors such as gossiping, spreading vicious rumors behind someone’s back, romantic
relationship manipulation, and social exclusion (Willer & Cupach, 2008). Most social aggression research focuses on the experiences of females in social groups because studies have found that girls tend to be more covertly and socially aggressive (Ostrov & Keating, 2004), experience more distress as a result of social aggression, label social aggression as more hurtful, and think about social aggression more often than boys (see Willer & Cupach 2011 for a review).

Studying social aggression amongst young adult females in college sororities is important because research indicates that perpetration is related to a number of negative outcomes including internalizing difficulties (e.g., depression, anxiety, loneliness, life satisfaction, affective instability, identity problems) (Crick & Grotpeter, 1995; Card, Stucky, Sawalani, & Little, 2008; Werner & Crick, 1999), physical health problems (e.g., self-harm behavior, bulimic symptoms) (Werner & Crick), and social difficulties (e.g., peer rejection, social exclusion, negative relationships, antisocial behaviors, lower interpersonal functioning) (Crick & Grotpeter; Burton, Hafetz, & Henniger, 2007; Werner & Crick).

There are two distinct forms of social aggression that arise in social groups such as college sororities—intergroup (i.e., between groups) and intragroup (i.e., within groups) social aggression (Willer & Cupach, 2011; Tajfel & Turner, 1979). For example, intragroup social aggression in college sororities can happen when there may be rivalries between members of an individual sorority, and intergroup social aggression may occur when members of two different sororities do not get along. Though social aggression arises within and between social groups, research has not yet examined the occurrence of
both forms of social aggression in social groups of females. That is, studies tend to focus on one or the other (e.g., Willer & Soliz, 2010) and focus more on victimization than perpetration. As a result of these limitations and gaps in the research, very little is known about the perpetration of both intergroup and intragroup social aggression by females in social groups. As such, the focus of the present study is on the perpetration of intergroup and intragroup social aggression (i.e., social aggressiveness) amongst young adult females in college sororities.

In addition to the lack of attention paid to the perpetration of intergroup and intragroup social aggression, little is known about factors related to young adult females’ identities that might influence their propensity to socially aggress in college sororities. Yet studies indicate that identity is tied to the perpetration of social aggression and that certain characteristics of a person’s identity may predispose them to socially aggress against others. For instance, research suggests that individual identity factors including, unstable self-esteem, narcissism, and intragroup status, might influence a person’s propensity to react to negative social evaluations in ways that are socially aggressive. For example, research has found that unstable self-esteem is positively associated with increased sensitivity to evaluative information from others (Kernis, 2005; Kernis et al., 1998; Kernis, Grannemann, & Barclay, 1989) and increased anger and hostility (Kernis, Grannemann, & Barclay) following negative events. Studies consistently demonstrate that narcissism is associated with higher self-reports of dispositional vengeance, anger, hostility, and verbal and physical aggression (Brown, 2004; Locke, 2009; Rhodewalt & Morf, 1995; Ruiz, Smith, & Rhodewalt, 2001) as well as proneness to aggress against
others following negative evaluation (Bushman & Baumeister, 1998). Other studies have found that intragroup social status and aggressiveness in social groups are positively associated (Cillessen & Mayeuz, 2007; LaFontana & Cillessen, 2002; Xie, Swift, Cairns, & Cairns, 2002; Lease, Kennedy, & Axelrod, 2002; Katz, 2006). Thus, this research suggests that individual identity factors may play a role in the perpetration of intergroup and intragroup social aggressiveness, and as a result the present study will explore unstable self-esteem, narcissism, and intragroup status in relation to social aggression.

In addition to the aforementioned individual identity factors, research indicates that group identity factors including, collective narcissism, college sorority intergroup social status, college sorority intergroup social aggressiveness, and college sorority intragroup social aggressiveness, might influence a person’s propensity to react to negative social evaluations in ways that are socially aggressive. For example, studies have found that collective narcissism is positively associated with intergroup bias and aggressiveness (de Zavala, Cichocka, Eidelson, and Jaywickreme, 2009). Research indicates that a social group’s high social status is predictive of aggressive tendencies in group members (Ellis & Zarbatany, 2007). Last, studies have found that aggressive behavior is a function of social learning and that individual aggressiveness is learned behavior associated with aggression levels of group members (Boxer, Guerra, Huesmann, & Morales, 2005). Thus, this research suggests that group identity factors may play a role in the perpetration of intergroup and intragroup social aggressiveness, and as a result the present study will explore collective narcissism, college sorority intergroup social status,
college sorority intergroup social aggressiveness, and college sorority intragroup social aggressiveness in relation to social aggression.

In summary, because research to date has not examined links between aspects of a person’s identity vis-à-vis intergroup and intragroup social aggressiveness, my main objective is to determine if the aforementioned individual and group identity factors—unstable self-esteem, narcissism, intragroup status, collective narcissism, sorority intergroup status, sorority intergroup social aggressiveness, and sorority intragroup social aggressiveness—are predictive of intergroup and intragroup social aggression perpetration. Specifically, I will explore whether these individual and group identity factors predict young adult females’ intergroup and intragroup social aggressiveness in college sororities.

In order to meet this objective, I employ social identity theory (Tajfel & Turner, 1979) as the overarching theoretical framework while also utilizing social learning theory (Bandura, 1977). Social identity theory emerged from Tajfel and Turner’s work on social identity formation and is grounded in the belief that a person’s social identity arises in and through their membership in particular social groups. In general, social identity theory posits that people seek and are motivated to maintain positive social evaluations in social groups to which they belong. When facing negative social evaluations from others, social identity theory indicates that people may resort to social aggression as means to enhance their social identities in ways that are positive. As a result, young adult females in sororities may respond to others’ negative social evaluations in ways that are socially
aggressive by humiliating, socially excluding, and pulling pranks on others, as well as gossiping, spreading vicious rumors, or engaging in romantic partner manipulation.

Research on social identity theory and social aggressiveness is still in its infancy (see Willer & Cupach, 2011 for a review). However, the theory is useful for understanding why young adult females in social groups or cliques, which are relatively intimate groups of people who share similar interests and behaviors and spend considerable and often exclusive amounts of time together (Ennett & Bauman, 1996; Thurlow, 2001), are inclined to perpetuate social forms of aggression. As Willer and Cupach claim, “social aggression manifests itself within cliques as girls struggle to maintain and enhance their own popularity and status” (p. 307). Thus, social identity theory helps explain why social aggression is a logical option for young adult females in college sororities to employ when facing negative social evaluations from others.

Social learning theory posits that people acquire and vicariously imitate behavior through the process of observational learning (Bandura, 1977). Most research on social learning theory focuses on the modeling and imitation of overt forms of aggression (e.g., physical). However, recent efforts to extend social learning theory indicate that observational learning creates conditions whereby people also model and imitate covert forms of aggression (Doran & Willer, 2012). Thus, social learning theory will inform the present study’s investigation of sororities’ contributions to the individual behavior of its group members; specifically, the present study will investigate if sororities’ intergroup and intragroup social aggressiveness are predictive of sorority members’ intergroup and intragroup social aggressiveness.
In the following literature review, a more thorough conceptualization of social aggression will be offered. Second, a brief overview of college sororities, which serve as the contextual focus of the present study’s investigation, will be provided. Third, literature related to mean behavior amongst females in young adulthood and in college sororities will be reviewed. Fourth, an in-depth discussion of the overarching theoretical framework for the present study, social identity theory, as well as information on social learning theory will be presented in order to provide support for my hypotheses. Last, a hypothesized path analysis model, which graphically illustrates the hypothesized direct and indirect relationships in the present study, will be presented.
CHAPTER TWO: LITERATURE REVIEW

CONCEPTUALIZATION OF SOCIAL AGGRESSION

Social aggression is a distinct form of covert aggression that people use when intending to inflict social harm (Underwood, 2003). As previously mentioned, social aggression is often linked with other conceptualizations, such as relational aggression (Crick & Grotpeter, 1995) and indirect aggression (Archer & Coyne, 2005) because “social aggression seems to consist of the behaviors included in indirect and relational aggression” (Underwood, Galen, & Paquette, 2001, p. 253). However, Willer and Cupach (2011) contend that social aggression “designates the broadest range of non-physically aggressive behaviors” in that “social aggression is manifested overtly or covertly, directly or indirectly, and verbally or nonverbally” (p. 300). Thus, like Underwood, the present study utilizes social aggression rather than other conceptualizations of non-physical forms of aggression (e.g., relational, indirect) because the term “more clearly captures the defining goal of the behavior in question—to do social harm” (p. 32). This is because, as Underwood claims, though “social aggression can certainly harm friendships… these behaviors can also harm social standing and social self-concept” (p. 32). Thus, social aggression in the present study will be used to refer to all forms of non-physical aggression that encompass social, relational, and indirect forms of aggression. The next section provides an overview of college sororities, which will serve as the context for the present study’s investigation of social aggression.
COLLEGE SORORITIES

College sororities are one of three types of Greek-letter student organizations on college campuses in the United States. According to DeSantis (2007), Greek-letter student organizations can be divided into three categories—professional, honor, and social fraternities and sororities. Whereas professional and honor fraternities and sororities bring students together based on professional and vocational fields and academic distinction, social fraternities and sororities are organizations “that are commonly associated with big parties, pledging and hazing, and communal housing” (DeSantis, p. 3). The first college sororities were developed exclusively by and for wealthy, white, Christian females in the late nineteenth century. Some of the first college sororities include Pi Beta Phi (1986), Kappa Alpha Theta (1870), Kappa Kappa Gamma (1870), Delta Gamma (1872), Alpha Delta Pi (1904), and Phi Mu (1904).

All college sororities in the United States engage in three practices or rituals known as rush, pledging, and initiation (DeSantis, 2007). In order to become a member of a particular college social sorority, prospective females must successfully complete all three practices for that sorority. Rush, the first of the three practices, involves membership recruitment whereby college sororities evaluate potential new members and vice versa. Only female undergraduates attending the sponsoring university may take part in rush. Rushees may be given what is known as a bid which means they are selected to pledge for a particular sorority. Pledging, according to DeSantis, is the second practice and is usually a semester-long activity whereby new members or pledges learn about the particular sorority chapter they are pledging, its members, activities, and responsibilities.
It is during this time, DeSantis explains, that hazing, which is a secret and illegal act involving behaviors that endanger, abuse, degrade, humiliate, and/or intimidate pledges, tends to occur. Finally, those who successfully navigate their way through the pledging process must complete the third and final practice which is known as initiation. Initiation involves a “secret induction ritual where new “sisters” learn the confidences, codes, passwords, and handshakes of their forefathers and foremothers,” before they can be considered official members (DeSantis, p. 6).

Despite the often grueling practices of rush, pledge, and initiation, college sororities are popping up in increasing numbers at college campuses across the country and in “surprising force at campuses not usually associated with the Greek tradition” (Moore, 2012, para. 9). In fact, an article in the New York Times reports that nationwide membership in college sororities “is up, growing a bit more than 15 percent from 2008 to 2012, to 285,543 undergraduates” (Moore, para. 10). One can expect that nationwide membership in college sororities will continue to rise as more females graduate from high school and enter college. This is significant because, as previously stated, females tend to employ covert (e.g., social) forms of aggression in their interactions with others (Ostrov & Keating, 2004). Thus, as the number of females joining college sororities rises, so will the likelihood that many will fall prey to and perpetuate social aggression that manifests within and between these particular social groups. As a result, it is especially important that researchers examine intergroup and intragroup social aggressiveness amongst young adult females in sororities. In the next section, I will discuss social aggression in young adulthood and in sororities.
SOCIAL AGGRESSION IN YOUNG ADULTHOOD AND COLLEGE SORORITIES

The mean girls of middle school may change into grown-up “shrews,” “witches,” “prima donnas,” and “bitches,” but underneath, the same game that started in grade school is still being played . . . females continue to interact in aggressive ways reminiscent of high school hallways where girls jockeyed for social status. (Dellasega, 2005, p. 8)

Research suggests that mean behavior is not something girls necessarily grow out of after middle school and high school. Rather than growing out of their mean girl ways, scholars claim many females learn how to employ social aggression in their social groups during young adulthood in more subtle, ‘sophisticated’ ways (e.g., Moroschan, Hurd, & Nicoladis, 2009; Burton, Hafetz, & Henninger, 2007; Willer & Cupach, 2008; Willer & Soliz, 2010; Dellasega, 2005).

Regardless of how social aggression is employed beyond childhood, studies indicate that females experience mean behavior and covert forms of aggression (e.g., relational, social) quite often in their social groups during young adulthood. For instance, when asked about relational aggression, several female college students told Dellasega (2005) that they were very familiar with relational aggression and experienced it often in college. As one female claimed, “Aggression absolutely occurs all the time in college, especially gossiping. I have participated in gossiping, jealousy, and so on” (Dellasega, p. 100). Another female college student added:

Jealousy, cliques, and gossip are big behaviors I notice. I’m sure I have been involved in all three scenarios during my college career. I know with my group of friends this happens because we judge people based on what they are wearing, or who they are hanging out with, because it gives us all something to talk about and share common opinions. (Dellasega, pp. 101-102)
Both of these excerpts demonstrate that females are familiar with and experience covert forms of aggression in their social groups during young adulthood. One particular social group that females encounter covert forms of aggression such as social aggression is college sororities.

SOCIAL AGGRESSION IN COLLEGE SORORITIES

Unfortunately, few studies that examine covert forms of aggression amongst females in young adulthood look specifically at the context of college sororities (Werner & Crick, 1999; Rharbite, 2012). Although Werner and Crick’s examination of relational aggressiveness amongst females and males in sororities and fraternities is insightful, their study focuses more on the outcomes of, rather than factors contributing to, relational aggression perpetration. Interestingly, however, Rharbite’s study on relational aggression found that female members of sororities reported experiencing higher frequencies of relational aggressiveness and relational aggression victimization than non-members in a variety of social settings. That is, female members of sororities reported both perpetuating and being the target of relational aggression more often than non-members. Although Rharbite does not examine factors that might contribute to relational aggressiveness or relational aggression victimization, her findings highlight a dark side of sorority life where females tend to experience higher levels of relational aggressiveness and relational aggression victimization than non-members.

interviews with 217 fraternity and sorority members at an undisclosed university, DeSantis claimed that much of what he had previously heard about competition and cattiness amongst females in sororities was, indeed, true. In his book, DeSantis explains how he was forced to take many of the rumors he had heard about sororities seriously when nearly every sorority focus group and female interviewee echoed that sorority girls are “so catty you wouldn’t believe it” (2007, p. 185). In his book, DeSantis shares some of the candid remarks he received from sorority focus group and female interviewees on the topic of sorority girls:

Janice, a Sigma, also found them (sorority girls) “catty and backstabbing,” Susan, an Omega, considered them “nasty gossips about each other,” and Elizabeth, a Beta, branded them “bitches.” Michelle, another Sigma, characterized them as “competitive” and “jealous of each other,” Karen, an Iota, felt they were “envious of girls who are prettier than they are,” and Josie, a Zeta, accused them of being “jealous when another sister is happier, skinner, more popular, whatever.” They “fight each other for attention when boys are around,” according to Liza, a Mu, “hate it if someone is getting more attention at bars,” as Hannah, a Tau, reported, and are, in the opinion of Taylor, a Kappa, “always looking to see who is skinner or who is dressed better or is cuter.” (p. 185)

In talking about differences between fraternities and sororities, one female interviewee told DeSantis, fraternities “don’t seem to be so catty and hurtful. They’re different. Less sneaky and gossipy like” (p. 186). This participant’s declaration is but one example of why DeSantis and other scholars suggest mean behavior in sororities “may well be a barrier to the formation of true sisterhood” (p. 185).

Given the extent to which many females report experiencing mean behavior and other social forms of aggression in sororities, it is necessary to now discuss individual and group identity factors that might influence a person’s propensity to socially aggress against others in order to address intergroup and intragroup social aggressiveness
amongst females in sororities. Thus, the next section will begin with an explanation of social identity theory and its connection to social aggression. Then I will discuss social learning theory in light of social aggression.
CHAPTER THREE: THEORETICAL OVERVIEW

SOCIAL IDENTITY THEORY

As girls mature, their need for social approval becomes acute. This need is fulfilled, in part, by girls making social comparisons in which affiliations with a valued ingroup accord them status and popularity vis-à-vis outgroup members. Acts of social aggression committed against outgroup members diminish their relative social standing, while elevating the social status of ingroup members. In addition, girls jockey for relative power and popularity within their ingroup hierarchy, and this competition can be manifested in acts of social aggression among ingroup members. (Willer & Cupach, 2011, p. 308)

The above excerpt addresses how it is that social aggression arises within and between social groups of females. Social identity theory emerged from Tajfel and Turner’s (1979) work on social identity formation and group membership. According to Tajfel and Turner, a person’s social identity arises in and through their membership in social groups. Tajfel and Turner posit that people are motivated to maintain a positive social identity as means to enhance their self-concept and engage in a categorization process that positions them favorably as distinct members of ingroups and dissimilar others as members of outgroups (1979). In their chapter on the dark side of social aggression, Willer and Cupach (2011) stress the logical connection between social identity theory and the study of social aggression and explain how such a classification process of ingroup/outgroup members “fosters social comparison such that ingroup members seek to see themselves as positively distinct members of outgroups” (p. 306). When ingroup members do not see themselves as positively distinct from members of outgroups, Willer and Cupach claim ingroup members can develop negative perceptions.
of their ingroup social identity. In some cases, ingroup members resort to social competition, or a direct struggle between groups, as means to repair their social identity and convert negative perceptions into ones that are positive. This form of behavior in the present study is referred to as intergroup social aggressiveness.

Research on social identity theory has found that social competition can be harmful for individuals and relationships because it can manifest in acts of aggression (Grotpeter & Crick, 1996; Sherif & Sherif, 1970; Underwood, 2003). Studies suggest that social competition is more prevalent between groups of people rather than within groups of people (Sherif & Sherif). Underwood suggests this might be because people are motivated to protect and confirm their group’s status in ways that are positive out of concern for their own social identity, which is inextricably tied to the social groups to which they belong. Therefore, ingroup members tend to be more likely to aggress and engage in other forms of deleterious behavior against outgroup members if such behavior elevates their ingroup’s status and their social identity in ways that are positive. Thus, females in sororities should be especially inclined to employ social aggression in their interactions with members of other sororities.

Grotpeter and Crick’s (1996) study on social identity theory and overt aggression amongst children’s friendships examines social competition amongst school-aged children. In their study, Grotpeter and Crick found that overtly aggressive children reported using aggression along with their friends (i.e., ingroup members) against children outside the friendship group (i.e., outgroup members). Interestingly, overtly aggressive children also reported that they would be upset if their friends did not join in
their aggression against outgroup members. Therefore, not only did children aggress against outgroup members, but they expected their friends to do the same and would be upset if they did not. Since these findings relate to overt rather than covert forms of aggression, this study is insightful because it reveals how people engage in covert forms of aggressive behavior towards outgroup members and that they may do so out of fear of negative evaluation or rejection from ingroup members. Thus, females in sororities may engage in social aggression towards members of other sororities because of negative repercussions they may face from members of their own sororities if they do not.

In addition to social competition that can manifest in forms of aggression between social groups, research on social identity theory indicates that *intragroup comparisons*, or comparisons within one’s group, can manifest in forms of aggression within social groups and can be quite harmful for individuals and relationships (Willer & Cupach, 2011). Like social competition, intragroup comparisons result from an ingroup members’ desire to convert negative social evaluations into ones that are positive (Willer & Cupach). Ingroup members facing perceived negative social evaluations from members of their own social groups may behave aggressively and engage in deleterious behavior if such behavior elevates their ingroup status and social identity in ways that are positive. Competition that is often fueled from intragroup comparisons can create significant hardships for the entire social group due to the numerous negative outcomes associated with social aggression.

Important to note is that some ingroup members play a more central role within their social groups and have higher social statuses than other ingroup members. Scholars
use the concept of network centrality, or social centrality, to investigate social status in relation to peer influence within cliques and particular social groups. Social centrality emerged from Cairns and colleagues’ social cognitive map (SCM) procedure for identifying variations in individual’s statuses within particular social groups (Cairns, Gariépy, & Kindermann, 1991; Cairns, Leung, Buchanan, & Cairns, 1995; Cairns, Perrin, & Cairns, 1985; Cairns, Xie, & Leung, 1998). Whereas the related construct of perceived popularity refers more broadly to an individual’s social status in an entire social network (Shi & Xie, 2011), social centrality focuses specifically on an individual’s social status within a clique or particular social group. Although research to date has not examined social centrality in relation to the perpetration of social aggression, studies have found that targets of social aggression share a relatively close relationship and social status with perpetrators (Willer & Cupach, 2008).

Overall, social identity theory is a good fit for understanding why young adult females might perpetuate intergroup and intragroup social aggression in sororities. In terms of the present study, social identity theory sheds light on motivations for social competition and intragroup comparisons, how each can manifest in acts of social aggression, and how this can be harmful for relationships and individuals. The theory posits that young adult females in sororities may resort to social aggression via social competition with outgroup members and intragroup comparisons with ingroup members when facing negative social evaluations from others. This is because, as Willer and Cupach (2011) express, “social relationships are at the core of girls’ identity concerns,” thereby making “the manipulation of relationships via social aggression” a natural
mechanism for young adult females in sororities to enhance their social identities in ways that are positive (p. 308).

Despite its utility for understanding how social aggression manifests between and within social groups, social identity theory does not address factors related to a person’s identity that might impact how people interpret and respond to negative perceived social evaluations from others. Yet it is likely that some people will be more threatened by negative evaluative information and social evaluations than others and will, thus, be more inclined to react in ways that are socially aggressive. Therefore, a look beyond social identity theory to aspects of a person’s identity is necessary in order to understand factors that might influence a person’s propensity to react to negative perceived social evaluations in ways that are socially aggressive. Thus, the following section will discuss individual and group identity factors that might contribute to intergroup and intragroup social aggressiveness amongst young adult females in sororities. Specifically, I will talk about self-esteem, narcissism, collective narcissism, intragroup status, and sorority intergroup status in relation to intergroup and intragroup social aggressiveness.

IDENTITY FACTORS THAT PREDICT INTERGROUP AND INTRAGROUP SOCIAL AGGRESSIVENESS

Little is known about factors related to young adult females’ identities that might influence their propensity to socially aggress in sororities. However, studies indicate that individual and group identity factors including, unstable self-esteem, narcissism, collective narcissism, sorority intergroup social status, intragroup status, sorority intergroup social aggressiveness, and sorority intragroup social aggressiveness, might
influence a sorority members’ proclivity to react to negative social evaluations from members of their sorority and members of other sororities in ways that are socially aggressive. Thus, it is necessary to discuss these individual and group identity factors in relation to social aggression and how they might be predictive of intergroup and intragroup social aggressiveness amongst young adult females in sororities.

In the following sections, I will first discuss components of a person’s self-esteem and how unstable-self esteem might be predictive of both intergroup and intragroup social aggressiveness. Then I will discuss narcissism and how it might predict both intergroup and intragroup social aggressiveness. Third, I will discuss the concept of collective narcissism and how it might be predictive of intergroup social aggressiveness. Fourth, I will discuss intragroup status and how this concept relates to intragroup social aggressiveness. Finally, I will talk about sorority intergroup status and how it might be predictive of both intergroup and intragroup social aggressiveness.

SELF-ESTEEM AND SOCIAL AGGRESSION

*Self-esteem* is an important component of an individual’s identity and refers most broadly to a person’s overall positive evaluation of the self (Gecas, 1982; Rosenberg, Schooler, Schoenbach, & Rosenberg, 1995). Self-esteem is composed of two distinct dimensions: competence and worth. Competence refers to the degree people see themselves as capable and efficacious, whereas worth refers to the degree people feel they matter and are of value (Gecas, 1982; Gecas & Schwalbe, 1983). Most research on self-esteem has focused on *self-esteem level* in relation to a person’s adaptive social functioning (see Harter, 1993; Ammerman, Kazdin, & Van Hasselt, 1992; Hattie, 1992;
Huebner, 1991; DuBois & Tevendale, 1999 for reviews). According to Kernis (2005), self-esteem level “refers to people’s representations of their typical, or general, global feelings of self-worth” and “reflects people’s representations of how they typically feel about themselves across time and context” (p. 1571). Therefore, Kernis maintains that though a person’s representations of themselves can change over time, “the changes usually occur slowly and over an extended time period” (p. 1572 as cited in Rosenberg, 1986).

Research on associations between low/high self-esteem level and aggression has yielded conflicting results (see Ostrowsky, 2010 for a review). Ostrowsky (2010) addresses some of the divergent explanations scholars make for associations between low/high self-esteem level and aggression. On low self-esteem, Ostrowsky writes, “It has long been assumed that low self-esteem is the basis for several problematic behaviors, including violent behavior” (p.70). According to Ostrowsky, scholars who support links between low-self-esteem and aggressive, violent behavior often claim people with low self-esteem engage in violent aggressive behavior to increase their self-esteem, power, and independence, as well as to externalize blame for their problems on others and protect themselves against feelings of inadequacy and inferiority.

Over the years, research on associations between low self-esteem level and aggression has received substantial empirical support (Walker & Bright, 2009; Fong, Vogel, & Vogel, 2008; Webster, 2006). In their review of ten years worth of literature on self-esteem level and violence and aggressive behavior, Walker and Bright (2009) claim most studies indicate low-self esteem is associated with violent, aggressive behavior. In
another study, Fong, Vogel, and Vogel (2008) found that middle school children who admitted to behavioral problems (e.g., assaulting others students) had lower levels of self-esteem than children who did not admit to behavioral problems. Similarly, Webster (2006) found that low self-esteem is associated with aggression. Overall, these findings, among others, suggest that there is reason to believe low self-esteem is maladaptive and associated with problematic behaviors, such as aggressiveness, in others.

On the other hand, Baumeister and Bushman’s (1999) line of research and other scholars (Kernis, Grannemann, & Barclay, 1989; Baumeister, Smart, & Boden, 1996; Baumesiter, Bushman, & Campbell, 2000) provide compelling evidence that high self-esteem, rather than low self-esteem, is associated with violent, aggressive behavior. For example, Kernis, Grannemann, and Barclay (1989) maintain:

Threats to self-esteem are more apt to be perceived as unjustified if one's self-concept is positive than if one's self-concept is negative, and unjustified threats are more likely to prompt anger… Also, high self-esteem individuals may be more likely to take steps to restore a damaged self-view than low self-esteem individuals. (p. 1014)

Recent studies suggest there might be reason to believe high self-esteem, rather than low self-esteem, is predictive of violent, aggressive behavior. For example, Ostrowsky (2009) found that high self-esteem was associated with violent behavior amongst adolescent girls. Similarly, Ellickson and McGuigan (2000) found that whereas low self-esteem was associated with relational aggression and violent behavior amongst girls, it was not for boys. As a result of these findings, it might be that high self-esteem is associated with problematic behaviors in others.
Because research has yielded conflicting results over associations between high/low self-esteem and aggression, it might be that self-esteem level alone is not an accurate predictor of problematic behaviors in others and that other components of a person’s self-esteem may better influence the quality of their adaptive social functioning (Baumeister, Campbell, Kreuger, & Vohs, 2003). This is likely why scholars such as Kernis (2005) claim, “A full understanding of self-esteem processes will require taking into consideration multiple components of self-esteem,” including self-esteem stability (p. 1598).

UNSTABLE SELF-ESTEEM

Kernis and colleagues (1998) define self-esteem stability as variations in a person’s assessment of their self-worth that are affected by “internally generated and externally provided evaluative information” (Kernis, 2005, p. 1578). Whereas self-esteem level refers to global assessments of a person’s self-esteem that are relatively constant and less likely to change over time, Kernis (2005) defines self-esteem stability as referring “to the magnitude of short-term fluctuations that people experience in their contextually based, immediate feelings of self-worth” (p. 1572).

Just as people are often classified as having either high or low self-esteem, people can also be classified as possessing stable or unstable self-esteem. In general, people with unstable self-esteem are said to experience greater shifts in the magnitude of short-term fluctuations in their feelings of self-worth than people with stable self-esteem (Kernis, 2005). That is, people with unstable self-esteem can go from feeling very positive about themselves at one moment in time to very negative the next or vice versa.
Because people with unstable self-esteem experience greater shifts in their day-to-day feelings of self-worth, research suggests that unstable self-esteem is associated with increased sensitivity to evaluative information from others, which may very well lead to aggressive behavior (Kernis, 2005; Kernis et al., 1998; Kernis, Grannemann, & Barclay, 1989). For example, Greenier and colleagues’ (1999) study on self-esteem stability found that people with unstable self-esteem experience greater fluctuations in feelings about themselves following positive and negative weekly events. In general, they found that people with unstable self-esteem are more sensitive to and influenced by negative and positive events than people with stable self-esteem.

In another study, Kernis, Grannemann, and Barclay (1989) found associations between unstable self-esteem and peoples’ propensity for anger and hostility. Specifically, people with unstable high self-esteem scored highest in self-reports of propensity for anger and hostility compared to people with stable high self-esteem who scored lowest, whereas people with unstable and stable low self-esteem fell in the middle. These findings are insightful because they suggest people with unstable self-esteem, regardless of whether they have high or low self-esteem, might be more inclined to react to negative perceived evaluations from others in ways that are socially aggressive.

Overall, these findings have led some scholars to conclude that unstable self-esteem, rather than self-esteem level, might be more predictive of aggressive behavior in others. This is largely because, as Kernis (2005), explains, “people with relatively stable self-esteem typically have less extreme reactions to potentially evaluative events, precisely because these events have little impact on their immediate feelings of self-
worth” (p. 1575). Since research on associations between self-esteem level and aggression has yielded conflicting results in the literature, it is wise to focus on unstable self-esteem, rather than self-esteem level, and its relation to social aggressiveness among young adult females in sororities.

Because research on unstable self-esteem and aggressive behavior is limited, research to date has not examined unstable self-esteem as being predictive of covert forms of aggression. Yet I expect that unstable self-esteem will be predictive of social aggressiveness in young adult females in sororities because females are inclined to perpetuate social forms of aggression within cliques and social groups (Willer & Cupach, 2011). Not only should young adult females with higher reports of unstable self-esteem be especially sensitive to and influenced by negative social evaluations, but they should also be more likely to respond in ways that are socially aggressive. Given that I am looking at two distinct forms of aggressiveness—intergroup and intragroup social aggression—I predict that young adult females with higher reports of unstable self-esteem will report higher levels of both intergroup and intragroup social aggressiveness. Therefore, sorority members with higher reports of unstable self-esteem will respond to negative social evaluations from members of other sororities as well as members of their own sororities in ways that are socially aggressive. Thus, I make the following parallel predictions:

\( H1: \) Sorority members’ higher reports of unstable self-esteem will predict higher reports of their own levels of intergroup social aggressiveness.
**H2: Sorority members’ higher reports of unstable self-esteem will predict higher reports of their own levels of intragroup social aggressiveness.**

Because studies have found associations between narcissism and aggressive behavior (Brown, 2004; Locke, 2009, Rhodewalt & Morf, 1995; Ruiz, Smith, & Rhodewalt, 200), I will now discuss narcissism and how it might be predictive of intergroup and intragroup social aggressiveness amongst young adult females in sororities.

**NARCISSISM AND SOCIAL AGGRESSION**

Associations between narcissism and aggression have received considerable scholarly attention (see Foster & Twenge, 2011 for a review). Rather than viewing narcissism as a clinical disorder (e.g., Kerberg, 1975; Kohut, 1977), narcissism in the present study is conceptualized as a personality trait grounded in a sense of entitlement and superiority over others with no “standard cut-score, above which one should be labeled a narcissist” (Foster & Twenge, p. 383). Instead, narcissists will include people who score above average on measures of narcissistic personality.

Research indicates that there are bright sides to narcissism and that narcissists can benefit relationships with others in some ways. For example, studies have found that narcissists are outgoing, highly extraverted individuals (Bradlee & Emmons, 1992) who are socially flexible and socially adept (Emmons, 1984). Because narcissists “tend to be happy, optimistic, not depressed, and have high self-esteem,” relationships with narcissists can be very exciting and satisfying at the beginning (Foster & Twenge, 2011, p. 387). Studies demonstrate that ‘narcissistic charm’ creates favorable initial impressions.
on others (Paulhus, 1998) which causes people to consistently rate narcissists highly in attractiveness and overall likeability (Friendman, Oltmanns, Gleason, & Turkheimer, 2006; Oltmanns, Friedman, Fielder, & Turkheimer, 2004).

Although there are some positives to narcissism and a narcissist’s initial impact on relationships with others (see Foster & Twenge, 2011 for a review), most scholars contend that the dispositional makeup of narcissists is maladaptive and “undermines long-term relationship functioning” (Foster & Twenge, p.382). This is because narcissists tend to be “arrogant, self-absorbed, and for the most part, not terribly pleasant to be around” (Foster & Twenge, p.382). In general, narcissists possess a strong sense of self-admiration, entitlement, and superiority. Their grandiose self-images require constant validation from others, which places unrealistic expectations and burdens on others. This constant need for validation from others has led scholars to maintain that narcissists are ‘addicted’ to self-esteem (Baumeister & Vohs, 2001). Others describe narcissists as “disagreeable extraverts” (Paulhus, 2001, as cited in Foster & Twenge, 2011, p. 383), who are outgoing and mean.

Foster and Twenge (2011) maintain that, “The dispositional makeup of narcissists suggests that they should be prone to aggression” (p. 392). Associations between narcissism and aggression have received substantial empirical support (see Foster and Twenge, 2011 for a review). For example, research indicates that narcissists consistently score high in self-reports of dispositional vengeance, anger, hostility, and verbal and physical aggression (Brown, 2004; Locke, 2009, Rhodewalt & Morf, 1995; Ruiz, Smith, & Rhodewalt, 2001). Interestingly, studies have found that narcissists are especially
prone to aggress against others following provocation and negative evaluations from others (Bushman & Baumeister, 1998). For example, Bushman and Baumeister found that narcissism was positively associated with provoked aggression, which includes aggressive behavior following provocation (Bettencourt, Talley, Benjamin, & Valentine, 2006), after receiving negative feedback from others on school work. Their findings are insightful because they suggest that people scoring high in narcissism do not always respond to negative feedback from others in overtly aggressive ways. That is, narcissists may use covert forms of aggression (e.g., social) in response to negative feedback and evaluative information from others to enhance their identities in ways that are positive.

Because narcissists require constant validation from others, social aggression is a logical alternative for narcissists to employ when facing negative social evaluations from others. Not only are females more inclined to perpetuate social forms of aggression in cliques and social groups (Willer & Cupach, 2011) but social aggression is more subtle, covert, and less noticeable than other forms of aggression (e.g., physical). If narcissists reacted to negative social evaluations from others in blatantly violent, physically aggressive ways, they would run the risk of disapproval and possible social rejection, all of which would threaten the grandiose self-images of narcissists. Because the risks associated with using covert forms of aggression in response to negative social evaluations are less obvious, social aggression is a viable option for young adult females in sororities to employ.

The tendency for narcissists to react to negative feedback from others in ways that are aggressive has led many scholars to conclude that negative evaluative information
from others can ignite “narcissistic rage” (Raskin, Novacek, & Hogan, 1991) in narcissists. Interestingly, Foster and Twenge (2011) maintain that “being excluded by a group acts as an ego threat to narcissists,” thus, “socially excluding narcissists should provoke their wrath” (p. 394). Thus, young adult females scoring high in narcissism should be especially vulnerable to and intolerant of negative evaluative information from members of their own sororities that may result in social exclusion from the group.

Nevertheless, the general dispositional makeup of narcissists and tendency for females to employ social forms of aggression in cliques and social groups (Willer & Cupach, 2011) suggests that young adult females who score high in narcissism should respond to negative evaluative information and social evaluations from others, whether it be a member of their own social sorority or not, in ways that are socially aggressive. Thus, I expect that sorority members’ higher reports of narcissism will be predictive of both intergroup and intragroup social aggressiveness. Given that research to date has not examined intergroup and intragroup social aggressiveness vis-à-vis narcissism, I make the following parallel predictions:

- **H3:** Sorority members’ higher reports of narcissism will predict higher levels of their own intergroup social aggressiveness.

- **H4:** Sorority members’ higher reports of narcissism will predict higher levels of their own intragroup social aggressiveness.

In the next section, I will discuss the concept of collective narcissism and how it might be predictive of intergroup aggressiveness amongst young adult females in sororities.
COLLECTIVE NARCISSISM AND SOCIAL AGGRESSION

Research suggests that collective narcissism, which is defined as “an ingroup identification tied to an emotional investment in an unrealistic belief about the unparalleled greatness of an ingroup,” might be associated with intergroup aggression (de Zavala, Cichocka, Eidelson, & Jayawickreme, 2009, p. 1074). De Zavala, Cichocka, Eidelson, and Jayawickreme (2009) introduce the concept of collective narcissism in their study on group identification and intergroup aggression. Among many things, they posit that people can be narcissistic about their collective identities in social and cultural groups just as they can be narcissistic about their personal identities (de Zavala et. al). In this way, collective narcissism is viewed as merely an extension of the concept of individual narcissism into the intergroup domain whereby people have inflated, grandiose images of their groups (de Zavala et al.). Therefore, de Zavala et al. maintain that collective narcissists “may see groups as extensions of themselves and expect everybody to recognize not only their individual greatness but also the prominence of their ingroups” (p. 1075).

Research suggests that collective narcissists will behave in ways that are similar to narcissists. In their study on collective narcissism and intergroup aggression, de Zavala et al. (2009) maintain that the mechanism underlying the relationship between collective narcissism and intergroup aggression is “analogous to the mechanism underlying the link between individual narcissism and interpersonal aggressiveness” (p. 1075). Therefore, they grounded many of their predictions about collective narcissists in research on individual narcissism. Although some of their predictions were not supported, de Zavala
et al.’s findings are insightful because they found that collective narcissism “is a form of group esteem that is reliably associated with intergroup bias and aggressiveness” (p. 1090). As a result, this study is important because it demonstrated that collective narcissism and intergroup aggression are linked.

Interestingly, de Zavala et al. (2009) claim that social groups might foster environments that promote collective narcissism in ingroup members. For example, in their study they write:

Narcissistic identification with an ingroup is likely to emerge in social and cultural contexts that diminish the ego and/or socialize individuals to put their group in the center of their lives, attention, emotions, and actions. Thus, the development of narcissistic group identification can be fostered by certain social contexts independent of individual-level narcissism. (de Zavala, Cichocka, Eidelson, & Jayawickreme, 2009, p. 1075)

Sororities are an example of a context that can diminish the ego and socialize members into putting their group into the center of their lives, attentions, emotions, and actions. Unlike other voluntary cliques and social groups, female members of sororities often spend most, if not all, of their time together (Robbins, 2004). For instance, many members live together in houses designated for sororities on college campuses across the country. In some cases, members are required to live in their sorority chapter’s house in order to receive the benefits of sorority membership (Robbins). Thus, it is possible, as de Zavala et al. suggest, that sororities might cultivate collective narcissistic views in their members.

Because collective narcissists “may see groups as extensions of themselves and expect everybody to recognize not only their individual greatness but also the prominence of their ingroups,” young adult females in sororities scoring high in collective narcissism
should be especially vulnerable to and intolerant of and negative evaluative information and social evaluations from members of other sororities (de Zavala et al., 2009, p. 1075). Though research to date has not examined intergroup social aggressiveness vis-à-vis collective narcissism, research suggests that collective narcissism will be predictive of intergroup social aggressiveness. As previously stated, females tend to perpetuate social forms of aggression in cliques and social groups (Willer & Cupach, 2011). Thus, social aggression is a logical alternative for young adult females scoring in sororities to employ when facing negative evaluative information and social evaluations from members of other sororities. As a result, I expect that young adult females who score high in collective narcissism will report high levels of intergroup social aggressiveness. Thus, I make the following prediction:

\[ H5: \text{Sorority members’ higher reports of collective narcissism will predict higher levels of their own intergroup social aggressiveness.} \]

In the next section, I will discuss intergroup status and how it might be predictive of intergroup social aggressiveness amongst young adult females in sororities.

INTERGROUP SOCIAL STATUS AND SOCIAL AGGRESSION

In settings outside the house, the sisters seemed to feel more protective of each other—it was sorority versus sorority, us versus them, rather than the sisters against sisters controversies and cliques that often split the house. At Louie’s, the Greek’s bar of choice, each sorority usually gathered in a different corner, where they eyed and gossiped about the other sororities across the room. (Robbins, 2004, p. 104)

There is reason to believe a social group’s relative social standing or intergroup status may be associated with intergroup social aggressiveness. In the present study, intergroup status refers to the relative social status of sororities. Studies indicate that there
are varying social statuses along which sororities themselves can be classified (DeSantis, 2007; Robbins, 2004). According to DeSantis (2007), clear social hierarchies exist between sororities on most college campuses across the country. As he writes:

Not all sororities are alike. GU’s Greek organizations, like those on every other campus with which I am familiar, can, as we have seen, be divided into three castes: the elites, the aspirers, and the strugglers. The elites have the prettiest, thinnest, and most popular females on campus. The aspirers are more diversified in terms of type, weight, popularity, reputation, and attractiveness . . . The strugglers break almost every stereotype the average student has about sororities. As one of my non-Greek students observed, they are the sororities, “where all the misfits go.” Their ranks are almost solely composed of females who are too ethnic, heavy, assertive, unattractive, or unpopular for the elites or the aspirers. (Desantis, 2007, p. 121)

Based on DeSantis’ description above, elites appear to have the highest intergroup social status among sororities on most college campuses across the country, whereas strugglers have the least because they are conceived as social groups “where all the misfits go” (p. 121).

Robbins (2004) shares similar thoughts on social hierarchies that exist between sororities and claims how every girl she asked “could tick off the ‘top five’ or ‘top three’ sororities at her school, ranked in order of prettiness and coolness” (p. 26). In her discussion of social hierarchies between sororities, Robbins writes:

There are popular sororities, “loser” sororities, and sororities known for their promiscuity, drug use, body type, and hair color. These groups are extensions of the kinds of cliques formed in secondary schools, but with an added element of officialdom: with the blessing of the school and the cliques’ national organizations, the groups’ process of exclusion is both formal and final. It should come as no surprise that girls who are sometimes only four months out of high school continue the social behavior developed in their prior academic settings. (2004, p. 117)
Because of these social hierarchies, Robbins argues, “Sororities resemble high school cliques, vying for the attention of the most attractive boys to boost their standing among the popular girls” (p. 51). Overall, Robbins echoes the belief that a high intergroup social status is desirable because “every house wants to ‘look good’” and “appear to be wanted and more popular among the Greek community” (p. 52).

Although research to date has not examined a social group’s intergroup status as it relates to intergroup social aggressiveness, studies suggest that a social group’s high social status might be predictive of aggressive tendencies in group members (Ellis & Zarbatany, 2007). For example, Ellis and Zarbatany (2007) found that the high-status of a social group (i.e., high-group centrality or visibility) predicted aggressive and deviant behavior in members. However, research to date has not investigated high intergroup status as predictive of intergroup social aggressiveness in group members. Even more so, studies have not examined high intergroup status and intergroup social aggressiveness in sororities. Yet I expect that sorority members’ higher reports of their sororities’ intergroup statuses will report higher levels of their own intergroup social aggressiveness. Thus, I pose the following prediction:

**H6:** Sorority members’ higher reports of their sororities’ intergroup status will predict higher levels of their own intergroup social aggressiveness.

In the following section, I will discuss intragroup status and how it might be predictive of intragroup social aggressiveness amongst young adult females in sororities.

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INTRAGROUP STATUS AND SOCIAL AGGRESSION

The sorority experience involves a constant struggle to keep up with the trends and attitudes dictated by particular cliques within the sorority. Belonging to a house offers a sister a permanent affiliation, but it doesn’t signify unconditional acceptance . . . the “us versus them” shifts from sorority versus sorority outside the house to clique versus clique within the house. (Robbins, 2004, pp. 114-115)

There is reason to believe that social centrality or an individual’s social status within a particular social group (Cairns, Gariépy, & Kindermann, 1991; Cairns, Leung, Buchanan, & Cairns, 1995; Cairns, Perrin, & Cairns, 1985; Cairns, Xie, & Leung, 1998) might be associated with aggressiveness. Members of social groups have varying social statuses along which they can be classified (Adler & Adler, 1998; Dunphy, 1963; Hartup, 1993). As previously mentioned, some ingroup members play a more central role within their particular social groups than other ingroup members. In the present study, a young adult females’ intragroup status refers to her relative social standing within her sorority.

In discussing the dark side of sorority life, Robbins (2004) talks about intragroup status in relation to social hierarchies and cliques that exist within and frequently divide sororities. Among many things, Robbins claims, “It seems inevitable that girls who are encouraged to form cliques as sororities, to accept or reject people based on predetermined (and often shallow) criteria, will perpetuate that exclusive behavior even once inside the sorority” (2004, p.118). Although Robbins’ has been criticized for her controversial, undercover investigation of sororities, her candid discussion of intragroup status, social hierarchies, and cliques within them is insightful:

The sisters gossiped about other girls in the chapter. More than two months into the school year, a definitive hierarchy had developed in the house. Caitlin, Amy, and Sabrina mingled among various groups. Half a dozen sisters were on the most popular tier, as the “pretty girls”—the party animals who knew the most fraternity
boys and could usually be found at the bars. Bitsy and a few others formed the boy-crazy clique. Charlotte and another sister were the house prudes, known by the way they strictly adhered to sorority rules, who spent time together because they weren’t entirely accepted by the other cliques. (2004, p. 112)

The above excerpt suggests that social hierarchies and cliques not only exist and divide sorority houses but create conditions whereby members who are not part of the “most popular tier” may be isolated and rejected from the rest of the social group, hereby making them targets of intragroup social aggression.

Studies indicate that there are associations between high intragroup status and aggressiveness in social groups (Cillessen & Mayeuz, 2007; LaFontana & Cillessen, 2002; Xie, Swift, Cairns, & Cairns, 2002; Lease, Kennedy, & Axelrod, 2002). For example, Cillessen and Mayeuz (2007) found that more popular girls are perceived by their peers as being more aggressive than others. In a similar study on physical and relational aggression, LaFontana and Cillessen (2002) found that physical and relational aggressiveness is associated more strongly with popular peers than with unpopular peers. In particular, popular children were seen as more willing to act in ways that are aggressive in order to achieve social goals (LaFontana & Cillessen, 2002). Studies also confirm links between social aggressiveness and high intragroup status. Specifically, research has found that social aggressiveness is associated with high intragroup status among girls in late elementary and early middle school (Xie, Swift, Cairns, & Cairns, 2002; Lease, Kennedy, & Axelrod, 2002).

In explaining associations between social aggressiveness and high intragroup status, Lease, Kennedy, and Axelrod (2002) suggest that people with high statuses might be inclined to use social aggression as means to maintain their favorable position within
their social group’s social hierarchy. Being socially aggressive, therefore, may serve a very strategic function for sorority members. Interestingly, Hawley (2003) found that perceived-popular children use a strategic combination of aggressive and prosocial behaviors in order to manipulate members of their social groups in ways that result in the attainment of a high status. Therefore, unlike other forms of aggressiveness, it appears that social aggression can be used to manipulate and control a social group’s social hierarchy to an aggressor’s advantage. In this way, social aggression may be a logical option for people with high intragroup statuses, or people desiring high intragroup social statuses, to employ when facing negative social evaluations that threaten their position within their social group’s social hierarchy.

In general, I expect that sorority members who have high intragroup statuses in their sororities will be more sensitive of negative evaluative information from members of their own sorority than others because of the favorable positions they hold within their sororities’ social hierarchy. Thus, I predict that sorority members with high intragroup statuses will report higher levels of intragroup social aggressiveness in order to maintain their favorable positions within their sororities’ social hierarchy. Despite research that links high intragroup status and social aggressiveness, research to date has not examined high intragroup status as it relates to intragroup social aggressiveness in sororities. Therefore, I make the following prediction:

\[ H7: \text{Sorority members’ higher reports of their own intragroup status will predict higher levels of their own intragroup social aggressiveness.} \]
Together, these individual and group identity factors might predict intergroup and intragroup social aggressiveness amongst young adult females in sororities. However, research has also shown that social aggressiveness is a function of social learning (Doran & Willer, 2012). Thus, it is necessary to discuss social learning theory in light of social aggression and how intergroup and intragroup social aggressiveness amongst young adult females in sororities might also be functions of social learning. Then I will discuss a possible mediation that might exist between individual and group identity factors and intergroup social aggressiveness amongst young adult females in sororities.

**SOCIAL LEARNING THEORY**

Social learning theory emerged from Bandura’s (1977) work on overt aggression (e.g., physical) and is grounded in the belief that people learn and vicariously imitate behavior through the process of observational learning. According to Bandura:

> Learning would be exceedingly laborious, not to mention hazardous, if people had to rely solely on the effects of their own actions to inform them what to do. Fortunately, most human behavior is learned observationally through modeling: from observing others one forms an idea of how new behaviors are performed, and on later occasions this coded information serves as a guide for action. (1977, p.22)

In 1961, Bandura conducted what is now regarded as his famous Bobo Doll Experiment in order to test assumptions about aggressive behavior and observational learning. Specifically, he sought to discern whether children could learn and imitate aggressive play by simply observing authoritative figures. As Bandura predicted, children in the aggressive experiment group learned and imitated the aggressive play of authoritative figures after observing their behavior. This led Bandura to conclude that a person does
not need to actually engage in a specific behavior in order to learn and later imitate it. As a result, he concluded that simply observing others is sufficient to learn to behave in similar ways. Based on results from his Bobo Doll Experiment and several years of research, Bandura went on to develop social learning theory, which he hoped would better “explain (a) how aggressive patterns are formed, (b) what provokes people to behave aggressively and (c) what sustains aggressive behavior” (1977, p. 19).

Although social learning theory is grounded in Bandura’s (1977) work on overt aggression, recent efforts to extend social learning theory indicate that observational learning creates conditions whereby people also learn and imitate covert forms of aggression (Doran & Willer, 2012). As previously stated, Doran and Willer (2012) found that social aggressiveness was a function of social learning; specifically, young adults learned and later imitated primary caregiver social aggressiveness in their peer interactions during college. Because this study was the first of its kind to demonstrate that social aggression can be a function of social learning, research to date has not examined whether ingroup and outgroup social aggressiveness might also be related to young adult females’ social aggressiveness in sororities.

Nevertheless, studies indicate that associating with aggressive peers increases a person’s propensity to behave aggressively (Cairns & Cairns, 1994; Crosnoe & Needham, 2004; Dishion & Owen, 2002; Ellis & Zarbatany, 2007; Espelage et al., 2003; Xie, Cairns, & Cairns, 2001). For example, in their study on aggression amongst groups of school-aged boys and girls, Boxer, Guerra, Huesmann, and Morales’ (2005) found that individual changes in aggression over time were associated with aggression levels of peer
group members; specifically, they found that a child’s aggressiveness was similar to their peer groups’ mean level of aggressiveness. Therefore, child aggressiveness increased in peer groups where group members were more aggressive and decreased in peer groups where group members were less aggressive. These findings are insightful because they suggest that social environments and group behaviors have an enormous influence on group members in that they contribute to changes in a person’s individual behavior over time.

As a result of these findings, it appears that social environments are predictive of group member behavior and that young adult females’ social aggressiveness in sororities might be a function of social learning. Although research to date has not examined intergroup or intragroup social aggressiveness vis-à-vis ingroup and outgroup social aggressiveness, the present study expects that sorority intergroup and intragroup aggressiveness will predict similar behavior in sorority members. That is, sorority members will learn and imitate the intergroup and intragroup social aggressiveness of their sororities. Because I am focusing on two distinct forms of social aggressiveness amongst young adult females in sororities, I make the following parallel predictions:

\[ H_8: \text{Sorority members’ higher reports of their sororities’ intergroup social aggressiveness will predict higher reports of their own levels of intergroup social aggressiveness.} \]

\[ H_9: \text{Sorority members’ higher reports of their sororities’ intragroup social aggressiveness will predict higher reports of their own levels of intragroup social aggressiveness.} \]
In the following section, I will discuss a possible mediation that might exist between sorority intergroup social aggressiveness, sorority intergroup status, and sorority members’ intergroup social aggressiveness.

**MEDIATION**

Research on status and social learning suggest that sorority intergroup social aggressiveness will mediate the relationship between sorority intergroup status, and sorority members’ reports of their own intergroup social aggressiveness. Although research to date has not examined a social group’s intergroup status as it relates to a social group’s intergroup social aggressiveness, studies suggest that a social group’s high social status might be predictive of the overall aggressive tendencies of the social group (Ellis & Zarbatany, 2007). As previously stated, Ellis and Zarbatany (2007) found that the high-status of a social group (i.e., high-group centrality or visibility) was predictive of aggressive and deviant behavior in members. Thus, it seems possible that higher levels of a social group’s status might predict higher levels of the social group’s intergroup social aggressiveness. At the same time, studies indicate that a person’s aggressiveness tends to be similar to their groups’ aggressiveness (Boxer, Guerra, Huesmann, & Morales, 2005). Therefore, I expect that young adult females’ higher reports of their sororities’ intergroup status will predict higher levels of their sororities’ intergroup social aggressiveness, which will then predict higher levels of their own intergroup social aggressiveness. Specifically, I make the following final prediction:
**Hypothesis 10 (H10):** Sororities’ intergroup social aggressiveness will mediate the relationship between sororities’ intergroup status and sorority members’ reports of their own levels of intergroup social aggressiveness.

To summarize, the literature that has been reviewed thus far indicates that factors related to young adult females’ identities might influence their propensity to socially aggress in college sororities. Specifically, the literature suggests that individual identity factors including, unstable self-esteem, narcissism, and intragroup status, and group identity factors including, collective narcissism, college sorority intergroup social status, college sorority intergroup social aggressiveness, and college sorority intragroup social aggressiveness, might be predictive of young adult females’ intergroup and intragroup social aggressiveness.

Next, I will present a hypothesized path analysis model that graphically represents all of the hypothesized direct and indirect relationships in the present study.

**Hypothesized Path Analysis Model**

A hypothesized path analysis model (see Figure 1) was created and will be used to assess the direct and indirect hypothesized relationships for the present study. These direct and indirect hypothesized relationships, which are appear in Figure 1, are between individual and group identity factors—unstable self-esteem, narcissism, sorority member intragroup status, collective narcissism, sorority intergroup status, sorority intergroup social aggressiveness, and sorority intragroup social aggressiveness—and young adult females’ intergroup and intragroup social aggressiveness in college sororities.
Figure 1. Hypothesized Path Analysis Model. This figure illustrates all of the direct and indirect hypothesized relationships in the present study. In the figure, “a,” “b,” and “c” are error terms which represent all of the factors outside the model that impact the endogenous variables sorority member intragroup social aggressiveness, sorority member intergroup social aggressiveness, and sorority intergroup social aggressiveness. All of the paths indicate positive relationships between the variables.

In the following section, the method, the present study’s recruitment procedures, participants, measures, and data analysis will be discussed.
CHAPTER FOUR: METHOD

In this section, an explanation of the present study’s recruitment procedures and criteria for participation in the present study will be provided. Second, demographic information on participants will be given. Last, descriptions of measures that were used to address the hypotheses for the present study will be offered.

RECRUITMENT

After receiving approval from the university’s Institutional Review Board, I began recruitment for the present study. Recruitment took two forms (see Appendix C & D for recruitment materials). First, I recruited participants by contacting several sorority chapters at colleges throughout the United States using information that was listed on college websites and Facebook sorority chapter group pages. Each email and Facebook message that I sent to a sorority chapter contained information about the study, including the study’s advertisement, informed consent form, and my contact information. Second, participants were recruited by asking faculty and graduate students in my network to make announcements about the study, and provide interested participants with information about the study, including the study’s advertisement, informed consent form, and my contact information, to students in their classes. Interested participants were told that participation in the present study required that they be at least 18 years old, female, and a current member of a college sorority in the United States.
PARTICIPANTS

Important to note is that 417 young adult females who are members of college sororities in the United States initially completed the present study’s survey. However, due to an error with the survey software Qualtrics, only 222 surveys were included in the analysis. Of the 222 surveys that were analyzed, all participants ranged in age from 18 to 23 years old ($M = 19.95, SD = 1.17$), and were mostly White/non-Hispanic ($n = 191, 86.0\%$). The remaining participants were Other ($n = 10, 4.5\%$), Asian/Pacific Islander ($n = 9, 4.1\%$), Hispanic ($n = 9, 4.1\%$), and Black/non-Hispanic ($n = 2, .9\%$). One person did not report their race/ethnicity. Participants also reported that they attended colleges mostly in the Midwestern region of the United States ($n = 86, 38.7\%$). The remaining participants reported that they attended colleges in the Southeast ($n = 55, 24.8\%$), Northeast ($n = 24 10.8\%$), Northwest ($n = 21, 9.5\%$), Mid Atlantic ($n = 19, 8.6\%$), Southwest ($n = 12, 5.4\%$), and Other ($n = 5, 2.3\%$).

PROCEDURES

Participants were asked to complete a series of measures that adequately addressed the hypotheses for the present study. The measures are described in the below sections (also see Appendix A). At the end of the survey, participants were asked to answer general demographic questions about themselves.

MEASURES

Sorority members’ intergroup and intragroup social aggressiveness, and sorority intergroup and intragroup social aggressiveness. Sorority members’ intergroup social
aggressiveness, sorority members’ intragroup social aggressiveness, sorority intergroup social aggressiveness, and sorority intragroup social aggressiveness were measured using modified versions of Coyne, Archer, and Eslea’s (2006) Indirect, Social, and Relational Aggression Scale. The measure consists of 21 items rated on a 5-point Likert-type scale (1 = never to 5 = regularly). Different versions of the social aggressiveness measure were used to ask participants to report how often they and other members of their sorority have behaved in a number of ways toward members of other sororities (i.e., intergroup social aggressiveness) and members of their own sororities in the last year (i.e., intragroup social aggressiveness). Sample items for the sorority members’ intergroup social aggressiveness measure include: “Gossiped about a member of another sorority,” “Made fun of a member of another sorority to make them look stupid,” and “Wrote something mean about a member of another sorority on my own or someone else’s social network site.” Sample items for sorority members’ intragroup social aggressiveness include: “Spread rumors about a member of your sorority,” “Became friends with another person to spite a member of your sorority,” and “Left a member of your sorority out on purpose.” Sample items for sorority intergroup social aggressiveness include: “Got others to dislike a member of another sorority,” “Threatened to break off a friendship with a member of another sorority,” and “Insulted a member of another sorority.” Sample items for sorority intragroup social aggressiveness include: “Yelled at a member of your sorority,” “Called a member of your sorority a mean name,” and “Rolled their eyes at a member of your sorority.” Higher scores on the measures represented higher levels of intergroup and intragroup social aggressiveness. Reliabilities for each of the measures
were good (All variable means, standard deviations, and alpha reliabilities are presented in Table 1).

Unstable self-esteem. Sorority members’ unstable self-esteem was measured using the Instability of Self-Esteem Scale (ISES) developed by Chabrol, Rousseau, and Callahan (2006). This measure consists of four items rated on a 4-point Likert-type scale (1 = strongly disagree to 4 = strongly agree). The scale includes the following items: “Sometimes I feel worthless; at other times, I feel that I am worthwhile.” “Sometimes I feel happy with myself; at other times I feel very unhappy with myself.” “Sometimes I feel useless; at other times I feel very useful.” “Sometimes I feel very bad about myself; at other times I feel very good about myself.” Higher values on the measure represented higher levels of unstable self-esteem. Reliability for the measure was good.

Narcissism. Sorority members’ levels of narcissism were measured using the Ames, Rose, and Anderson’s (2006) Narcissistic Personality Inventory-16 (NPI-16). The NPI-16 is comprised of 16 pairs of statements; one statement in the pair is narcissism-consistent and the other statement is narcissism-inconsistent. Instructions ask participants to select the one statement from each pair with which they agree the most. Sample pairs include, “When people compliment me I sometimes get embarrassed” [narcissism-inconsistent] versus “I know that I am good because everybody keeps telling me so” [narcissism-consistent] and “I try not to be a showoff” [narcissism-inconsistent] versus “I am apt to show off if I get the chance” [narcissism-consistent]. Scores were computed across all the items with narcissism-consistent responses coded as 1 and narcissism-inconsistent responses coded as 0 (Range = 0 to 16). Thus, higher scores represented
higher narcissism in sorority members. Reliability for the measure was adequate. However, reliability for this measure is consistently low in many studies.

Collective narcissism. Sorority members’ levels of collective narcissism were measured using the nine-item Collective Narcissism Scale (de Zavala et al., 2009). For this measure, I asked sorority members to provide their answers to nine items using a scale from 1 (I strongly disagree) to 6 (I strongly agree) while thinking about their college sorority. Sample items include, “My group deserves special treatment,” and “Not many people seem to understand the importance of my group.” Higher scores represented higher collective narcissism in sorority members. Reliability for the measure was adequate.

Sorority intergroup and sorority members’ intragroup status. Sorority intergroup status and sorority members’ intragroup status were measured using modified versions of relative likability and influence scales that are based on Willer and Soliz’s (2010) modified version of Lease, Musgrove, and Axelrod’s (2002) conceptualization of social status. Each scale was measured using 5-point Likert-type scales (1 = strongly disagree to 5 = strongly agree). I made some minor word choice changes to the original measure in order to better suit the context of college sororities. The relative likability scale consists of three items. For sorority intergroup status, the items include: “Members of other sororities are fond of my sorority,” “My sorority is liked by members of other sororities, and “In the eyes of others, my sorority is more accepted than other sororities;” for sorority members’ intragroup status, the items include: “Other members of my sorority are fond of me,” “I am liked by other members of my sorority,” and “In the eyes of other
members of my sorority, I am more accepted than others.” The relative influence scale consists of three items. For sorority intergroup status, the items include: “Members of other sororities take my sorority seriously,” “My sorority has a lot of influence over other sororities,” and “Members of other sororities are likely to go along with what my sorority says and does more often than they are to go along with what other sororities say and do;” for sorority members’ intragroup status, the items include: “Other members of my sorority take me seriously,” “I have a lot of influence over other members of my sorority,” and “Other members of my sorority are more likely to go along with what I say and do than others.” Higher scores represented greater relative likability of the participants’ sororities and the participants themselves and greater relative influence of participants’ sororities and the participants themselves, which indicated higher sorority intergroup status and sorority members’ intragroup status. Reliabilities for each of the measures were adequate.
In the next section, I will discuss the data analysis for the present study.

<table>
<thead>
<tr>
<th>Variable Name</th>
<th>M</th>
<th>SD</th>
<th>Alpha</th>
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<td>.90</td>
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<td>.97</td>
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<td>Sorority Intragroup Social Aggressiveness</td>
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<td>.90</td>
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<td>.70</td>
</tr>
<tr>
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<td>.92</td>
<td>.76</td>
</tr>
<tr>
<td>Sorority Relative Likeability</td>
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<td>.72</td>
<td>.71</td>
</tr>
<tr>
<td>Sorority relative Influence</td>
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<td>.81</td>
<td>.76</td>
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<tr>
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<tr>
<td>Sorority Member Relative Influence</td>
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<td>.81</td>
<td>.79</td>
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</table>

*Note:* The Measures table includes the means, standard deviations, and alpha reliabilities for each measure that was used in the present study.
CHAPTER FIVE: DATA ANALYSIS

A hypothesized path analysis model was developed and used to test the direct and indirect hypothesized relationships in the present study. Path analysis is a fitting statistical tool for the present study because it is an extension of multiple regression and a special case of structural equation modeling (SEM). Similar to multiple regression and SEM, path analysis is a multivariate statistical tool that is used to test hypothesized causal relationships that are based on theory.

Nevertheless, there are importance differences between path analysis and multiple regression and SEM. First, path analysis allows for the testing of several structural equations (i.e., regression) that involve more than one predictor and outcome variable whereas multiple regression does not. Second, path analysis is a model-testing procedure that allows for and relies upon the creation of path diagram models whereas multiple regression is not. Third, path analysis creates path diagram models that are based on observable variables whereas SEM allows for the creation of path diagram models that include both observed variables and latent variables.

Last, unlike multiple regression, path analysis does not refer to variables as independent or dependent. Instead, variables are either exogenous or endogenous. Exogenous variables are variables that are not influenced by other variables in the model and, thus, have no arrows pointing at them, whereas endogenous variables are influenced by other variables in the model and, thus, do have arrows pointing at them. In the present
study, unstable self-esteem, narcissism, collective narcissism, sorority intergroup status, sorority member intragroup status, and sorority intragroup social aggressiveness were considered exogenous variables, whereas sorority member intergroup social aggressiveness, sorority member intragroup social aggressiveness, and sorority intergroup social aggressiveness were considered endogenous variables.

Important to note is that hypothesized direct and indirect relationships in path analysis “cannot be statistically tested for directionality” and that path diagram models themselves “cannot prove causation” (Lleras, 2005, p. 25). However, even though one cannot infer causality from correlation, path diagram models do “reflect theories about causation and can inform the researcher as to which hypothesized causal model best fits the pattern of correlations found” (Lleras, p. 25). Thus, path analysis is a powerful multivariate statistical tool that reflects theories about causation and is advantageous over other multivariate statistical tools because it “forces researchers to explicitly specify” how variables relate to each other which encourages the “development of clear and logical theories about the processes influencing a particular outcome” (Lleras, p. 25).

All of the predictions that I make in the present study have to do with how variables are causally related to one another, wherein variables influence the outcomes of other variables. Given that all of my predictions are grounded in research and theory about causation, path analysis is the most appropriate multivariate statistical tool for the present study’s analysis.
CHAPTER SIX: DATA CLEANING

Before the hypothesized path analysis model in Figure 1 could be tested, missing value diagnostics were run to screen for missing values in the data in the present study. Missing data is particularly problematic when conducting path analysis for two reasons. First, multivariate statistical tools such as SEM and path analysis require complete data sets. When there is missing data, analyses that are produced from path analysis are based on estimates of means and intercepts rather than exact values. Thus, missing data is undesirable and should be handled when conducting path analysis. Second, missing data can threaten a researcher’s ability to make “valid inferences regarding a population of interest” if the data is “missing in a manner which makes the sample different from the population from which it was drawn” (Wayman, 2003, p. 2). Thus, Wayman (2003) claims “it is important to respond to a missing data problem in a manner which reflects the population of inference” (p. 2).

Missing value diagnostics revealed that there were missing values in the data in the present study (see Figure 2 and Table 2). Specifically, 25 cases had missing values on scale items for one or more variables and all of the variables, with the exception of unstable self-esteem, had missing data (see Figure 2). All of the variables that had missing values had missing values that were less than 2.5% (see Table 2). This is important because Tabachnick and Fidell (2001) claim missing values are not a problem and can be ignored when present in 5% or fewer of cases.
Figure 2. Overall Summary of Missing Values. This figure provides an overall summary of the missing values in the data in the present study. The first circle, “Variables,” indicates that all of the variables, which the exception of one (i.e., unstable self-esteem), have missing values. The second circle, “Cases,” indicates that 25 cases have missing values. The third circle, “Values,” indicates that 28 values are missing in the data in the present study.

Table 2

<table>
<thead>
<tr>
<th>Variable Name</th>
<th># missing</th>
<th>% missing</th>
</tr>
</thead>
<tbody>
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<td>2.4</td>
</tr>
<tr>
<td>Sorority Member Intergroup Social Aggressiveness</td>
<td>6</td>
<td>2.4</td>
</tr>
<tr>
<td>Collective Narcissism</td>
<td>4</td>
<td>1.6</td>
</tr>
<tr>
<td>Sorority Member Intragroup Social Aggressiveness</td>
<td>4</td>
<td>1.6</td>
</tr>
<tr>
<td>Narcissism</td>
<td>3</td>
<td>1.2</td>
</tr>
<tr>
<td>Sorority Intragroup Social Aggressiveness</td>
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<td>0.8</td>
</tr>
<tr>
<td>Sorority Member Intragroup Status</td>
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<td>0.8</td>
</tr>
<tr>
<td>Sorority Intergroup Status</td>
<td>1</td>
<td>0.4</td>
</tr>
</tbody>
</table>

Note: The Missing Data Table summarizes the number of missing values for each variable in the present study.

Missing value pattern diagnostics were run to determine if there was a pattern to the missingness. The diagnostics revealed that the data is monotone because there are no
clusters of missing values for any of the variables (see Figure 3). When data is said to be monotone, it means there are no patterns or groups of cells with the same missing values that ‘cluster’ on a particular variable (Rubin, 1987). Because the data is monotone, there were no patterns to the missingness. Thus, the missing values for the variables were missing at random (MAR) (Little & Rubin, 2002).

![Missing Value Patterns](image)

Figure 3. Missing Value Patterns. This figure reveals missing value patterns in the data. Variables are ordered along the X axis from left to right in increasing order of missing values. Thus, the variable sorority intergroup social aggressiveness is to the far right because it has the most missing values. Each row represents a certain pattern or group of cases with the same missing values for each variable. These rows of missing values reveal where and if monotonicity exists. If the data are monotone, there will be no clusters of cells with missing values in the lower right portion of the chart and no clusters of cells with missing cells in the upper left portion of the figure (Rubin, 1987).
Because of the problems inherent in missing data and the benefits of having a complete data set, my focus shifted to how to handle the missing data. There are several different ways to handle missing data problems. Although traditional methods for handling missing data (e.g., listwise deletion, pairwise deletion, mean substitution) are relatively simple to perform, scholars such as Graham and colleagues (2003) caution researchers against their use, maintaining that these methods are “unacceptable” and have inherent drawbacks. As Wayman (2003) explains:

Handling missing data by eliminating cases with missing data (“listwise deletion” or “complete case analysis”) will bias results if the remaining cases are not representative of the entire sample. This method is the default in most statistical software. Another common method available in most statistical packages is mean substitution, which replaces missing data with the average of valid data for the variable in question. Because the same value is being substituted for each missing case, this method artificially reduces the variance of the variable in question, in addition to diminishing relationships with other variables. (p. 3)

Given their drawbacks, these traditional methods for were not employed in the present study. Instead, a relatively new and intuitive tool known as multiple imputation was used to handle the missing data.

In multiple imputation, all cases in a data set, both missing and nonmissing, are retained for analysis and modeling which results in the creation of a complete data set. This is because in “multiple imputation, missing values for any variable are predicted using existing values from other variables” (Wayman, 2003, p. 4). According to Wayman (2003), missing values for any variable are predicted and these predicted values, which are known as “imputes,” are then substituted to replace missing values, which result in the creation of a complete data set known as an “imputed data set” (p. 4). This procedure is called multiple imputation because the process of producing predicted values literally
Multiple imputation has several advantages over traditional methods for handling missing data. According to Wayman (2003), multiple imputation has been shown to produce unbiased parameter estimates, be robust to departures from normality, and produce adequate results even when dealing with low sample sizes or high frequencies of missing data. In addition to these advantages, multiple imputation is an intuitive, relatively easy procedure to perform using specialized statistical software. For these reasons, multiple imputation was used in the present study to create a complete imputed data set so that the exact values for the means and intercepts would be calculated in AMOS.

After a complete imputed data set was created, additional diagnostics were run to check the data in the present study for outliers and multicollinearity. Because the present study’s sample size is larger than 80 cases, a case was considered a univariate outlier if its standard score on a variable was equal to or greater than $\pm 3.0$. I was only concerned with univariate outliers that were associated with the endogenous variables—sorority member intergroup social aggressiveness, sorority member intragroup social aggressiveness, and sorority intergroup social aggressiveness—because dependent variables are typically screened for univariate outliers. Nine cases were identified as univariate outliers and
removed from the data because their standard scores on an endogenous variable were equal to or greater than ±3.0.

I was also concerned with multivariate outliers that were associated with the exogenous variables—unstable self-esteem, narcissism, collective narcissism, sorority intergroup status, sorority member intragroup status, and sorority intragroup social aggressiveness—because independent variables are typically screened for multivariate outliers. A case was considered a multivariate outlier if it had an unusual combination of values for more than one variable that caused it to have a value of $D^2$ that was 0.001 or less. 14 cases were identified as multivariate outliers and removed from the data because they had values of $D^2$ that were 0.001 or less.

After removing all 23 outliers from the data, additional diagnostics were run to screen for multicollinearity. Multicollinearity occurs when two or more independent variables or exogenous variables are highly correlated (Cohen, Cohen, West, & Aiken, 2003). Multicollinearity is problematic because it inflates the standard errors of coefficients, which makes it so that some variables are statistically non-significant when they should have been statistically significant. In the present study, the diagnostics tolerance and the Variance Inflation Factor (VIF) were used to assess multicollinearity. Multicollinearity was considered a problem if tolerance < .10 and VIF > 10.0 (Cohen et al., 2003). Results from running diagnostics for the assumption of multicollinearity were satisfactory. Thus, the exogenous variables unstable self-esteem, narcissism, collective narcissism, sorority intergroup status, sorority member intragroup status, and sorority
intragroup social aggressiveness had tolerance values that were < .10 and VIF values that were > 10.0.

In the next section, I will present the results of the present study’s analysis. First, I will present the results of the hypothesized path analysis model. Then I will discuss the process and results of creating a new path analysis model. Finally, I will present the results for each hypothesis in the present study.
CHAPTER SEVEN: RESULTS

In order to address the present study’s hypotheses, the hypothesized path analysis model (see Figure 1) was tested using AMOS version 21. Because a complete imputed data set was created, exact values for the direct and indirect hypothesized relationships were calculated and are graphically illustrated in Figure 4.

Figure 4. Results of the Hypothesized Path Analysis Model. This figure includes all of the standardized regression coefficients for the direct and indirect hypothesized relationships in the present study. In the figure, “a,” “b,” and “c” are error terms which represent all of the factors outside the model that impact the endogenous variables sorority member intragroup social aggressiveness, sorority member intergroup social aggressiveness, and sorority intergroup social aggressiveness. *p < .05, **p < .01, ***p < .001.
***p < .001, no * means path is non-significant.

The hypothesized path analysis model was evaluated by four fit measures: (a) the chi-square, (b) the normed fit index (NFI), (c) the comparative fit index (CFI), and (d) the root mean square error of approximation (RMSEA). Additionally, path coefficients were assessed for statistical significance at $p < .05$.

Results of all four fit indexes indicate that the hypothesized path analysis model is a very poor fitting model. The chi-square yielded a value of 488.387 (26, $N – 222$), $\chi^2/df = 18.78, p = .000$, indicating an unacceptable match between the model and the observed data. The NFI and CFI are measures of relative fit that compare the fit of a hypothesized model to the independence model. A NFI value that exceeds .90 is considered a good fit whereas a CFI value that exceeds .95 is considered a good fit (Hu & Bentler, 1999). Both the NFI and CFI yielded values of .30 and .31, indicating a very poor fitting model. The RMSEA is another measure that is used to assess model fit. For the RMSEA, values of less than .05 are considered a good fit (Browne & Cudeck, 1993). The hypothesized path analysis model in the present study yielded a RMSEA value of .28, indicating a very poor fitting model (Meyers, Gamst, & Guarino, 2006).

The hypothesized path model in Figure 1 was a very poor fitting model because there are more variances and covariances than paths in the model, making it an over-identified model (Keith, 2006). When a model is over-identified, there are fewer paths in the model than the actual number of observed variances and covariances (Keith). Keith (2006) explains why this is problematic:

Just as it means something to draw a path, it means something to not draw a path and, in fact, it is often a stronger statement than drawing a path. When we draw a
path, we are stating that one variable may have some effect on another… Indeed, not drawing a path is the same as drawing a path and fixing or constraining that path to a value of zero. (p. 261)

The positive degrees of freedom that result when there are more variances and covariances than paths in a model impose constraints that make it very difficult, if not impossible, to correctly estimate the parameters in a model in a manner that exactly reproduces the observed variance-covariance matrix. Thus, in order for a path analysis model to be a good fit, paths must be added to reduce the number of constraints that are imposed.

In order to determine where paths should be added to the hypothesized path analysis model in Figure 1, I ran a correlation matrix in SPSS with all of the exogenous variables and endogenous variables in the present study. The results indicate that there are several additional correlations between the exogenous variables and endogenous variables that are statistically different from zero at \( p < .05 \) (see Table 3). In addition to creating a correlation matrix, I expected that narcissism might also be associated with sorority intergroup social aggressiveness and sorority intragroup social aggressiveness because associations between narcissism and aggression have received substantial empirical support (Brown, 2004; Locke, 2009, Rhodewalt & Morf, 1995; Ruiz, Smith, & Rhodewalt, 2001; Bushman & Baumeister, 1998). Thus, I created a new path analysis model (see Figure 5) that included paths for the statistically significant hypothesized relationships in the present study (see Figure 4), paths for the additional correlations that were found between the exogenous variables and endogenous variables that are statistically different from zero at \( p < .05 \) (see Table 3), and paths between narcissism and sorority intergroup social aggressiveness and sorority intragroup social aggressiveness.
Important to note is that I did not include non-significant paths from the hypothesized path analysis model in Figure 4 when creating the new path analysis model. Although eliminating non-significant paths does not significantly worsen a path analysis model’s fit, it does result in the creation of a more parsimonious model. Thus, only statistically significant paths from the hypothesized path analysis model in Figure 4 were included in the new path analysis model so that a more parsimonious model could be created. As a result, paths between unstable self-esteem and sorority member intergroup social aggressiveness, sorority member intragroup status and sorority member intragroup social aggressiveness, and the mediation between sorority intergroup status, sorority intergroup social aggressiveness, and sorority member intergroup social aggressiveness were not included in the new path analysis model. Important to note, however, is that there are associations between sorority member intragroup status and the exogenous variables unstable self-esteem, narcissism, collective narcissism, and sorority intergroup status (see Table 3).
### Table 3

**The Correlation Matrix**

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<th>Variable Name</th>
<th>(1) Sorority Member Intergroup Social Aggressiveness</th>
<th>(2) Sorority Member Intragroup Social Aggressiveness</th>
<th>(3) Unstable Self-Esteem</th>
<th>(4) Narcissism</th>
<th>(5) Collective Narcissism</th>
<th>(6) Sorority Intergroup Status</th>
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<tr>
<td>(4) Narcissism</td>
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<td>0.19**</td>
<td>0.11</td>
<td>0.20**</td>
<td>0.16*</td>
<td>0.17*</td>
<td>0.15**</td>
<td>0.53***</td>
<td>0.41***</td>
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<tr>
<td>(5) Collective Narcissism</td>
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<td>0.16*</td>
<td>0.11</td>
<td>0.20**</td>
<td>0.16*</td>
<td>0.17*</td>
<td>0.15**</td>
<td>0.53***</td>
<td>0.41***</td>
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<tr>
<td>(6) Sorority Intergroup Status</td>
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<td>-0.11</td>
<td>-0.01</td>
<td>0.20**</td>
<td>0.16*</td>
<td>0.06</td>
<td>0.03</td>
<td>0.38***</td>
<td>0.63***</td>
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<tr>
<td>(7) Sorority Member Intragroup Status</td>
<td>0.10</td>
<td>0.033</td>
<td>-0.24***</td>
<td>0.15**</td>
<td>0.16*</td>
<td>0.06</td>
<td>0.03</td>
<td>0.38***</td>
<td>0.63***</td>
</tr>
<tr>
<td>(8) Sorority Intergroup Social Aggressiveness</td>
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<td>0.52***</td>
<td>0.11</td>
<td>0.01</td>
<td>-0.06</td>
<td>0.03</td>
<td>0.03</td>
<td>-0.18**</td>
<td>-0.04</td>
</tr>
<tr>
<td>(9) Sorority Intragroup Social Aggressiveness</td>
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<td>0.63***</td>
<td>0.13</td>
<td>0.03</td>
<td>-0.18**</td>
<td>-0.04</td>
<td>0.84***</td>
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**Notes:** The Correlation Matrix table includes all of the correlation coefficients for the exogenous variables and endogenous variables in the present study. *p < .05, **p < .01, ***p < .001, no* means path is non-significant.
Figure 5. Results of the New Path Analysis Model. This figure includes standardized estimates for the statistically significant hypothesized relationships from the hypothesized path analysis model in Figure 4, paths for relationships between exogenous variables and endogenous variables that are statistically different from zero at p < .05, as well as paths between narcissism and sorority intergroup social aggressiveness and sorority intragroup social aggressiveness. In the figure, *p < .05, **p < .01, ***p < .001, no * means path is non-significant. Curved lines in the figure indicate correlations between variables and straight arrowed lines indicate regressions. Also, “a,” “b,” and “c” are error terms which represent all of the factors outside the model that impact the endogenous variables.
Table 4

Regression Coefficients & Correlations

<table>
<thead>
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<th>Variable Name</th>
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<tr>
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<td>Sorority Member Intergroup Social Aggressiveness</td>
<td>.63 ***</td>
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<tr>
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<td>Sorority Intergroup Social Aggressiveness</td>
<td>.84 ***</td>
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</table>

Notes: The Regression Coefficients & Correlations table includes the regression coefficients and correlations for all of the relationships between the exogenous variables and endogenous variables in the present study, with the exception of sorority member intragroup status. In this table, $\rightarrow$ regression, $\leftrightarrow$ correlation. $*p < .05$, $**p < .01$, $***p < .001$, and no* means path is non-significant.
The new path analysis model in Figure 5 was evaluated using four fit measures: (a) the chi-square, (b) the normed fit index (NFI), (c) the comparative fit index (CFI), and (d) the root mean square error of approximation (RMSEA). Results of all four fit indexes indicate that the path analysis model in Figure 5 is a very good fitting model. The chi-square for this model was not significant, \( \chi^2 (11, N = 222) = 6.93, \quad \chi^2 / df = .63 \quad p = .81 \), indicating a very good match between the model and the observed data. In this model, both the NFI yielded values of 9.9 and 1.00, indicating a good fitting model (Hu & Bentler, 1999). The RMSEA for the new path analysis model was also .00, indicating a very good fitting model (Meyers, Gamst, & Guarino, 2006).

In order to address the present study’s hypotheses, paths were tested for statistical significance at \( p < .05 \). Regression coefficients that are given below for paths that did not achieve significance were taken from the hypothesized path analysis model in Figure 4, whereas regression coefficients that are given below for paths that achieved significance were taken from the new path analysis model in Figure 5. Hypothesis 1 predicted that sorority members’ higher reports of unstable self-esteem would predict higher levels of their own intergroup social aggressiveness. The hypothesized path analysis model in Figure 4 does not support the first hypothesis because the direct path from unstable self-esteem to sorority member intergroup social aggressiveness did not achieve significance (\( b = .04, \beta = .07, SE = .03, p = .18 \)). Thus, the regression coefficient for unstable self-esteem in the prediction of sorority members’ intergroup social aggressiveness was not significantly different from zero at \( p < .05 \) (see Table 4 for a complete list of regression coefficients and correlations).
Hypothesis 2 predicted that sorority members’ higher reports of unstable self-esteem would predict higher levels of their own intragroup social aggressiveness. The new path analysis model supports the second hypothesis because the direct path from unstable self-esteem to sorority member intragroup social aggressiveness achieved significance. Specifically, the regression coefficient for unstable self-esteem in the prediction of sorority members’ intragroup social aggressiveness was significantly different from zero at \( p < .05 \). As unstable self-esteem increased 1 standard deviation, sorority members’ intragroup social aggressiveness increased .06 standard deviations (\( b = .06, \beta = .11, SE = .03, p < .05 \)).

Hypothesis 3 predicted that sorority members’ higher reports of narcissism would predict higher levels of their own intergroup social aggressiveness. Important to note is that although the hypothesized path analysis model supports the third hypothesis (\( b = .02, \beta = .11, SE = .01, p < .05 \)), the new path analysis model does not; in particular, the direct path from narcissism to sorority member intergroup social aggressiveness in the new path analysis model did not achieve significance (\( b = .00, \beta = .02, SE = .01, p = .72 \)). Thus, the regression coefficient for narcissism in the prediction of sorority members’ intergroup social aggressiveness was not statistically different from zero at \( p < .05 \).

Hypothesis 4 predicted that sorority members’ higher reports of narcissism would predict higher levels of their own intragroup social aggressiveness. The new path analysis model supports the fourth hypothesis because the direct path from narcissism to sorority member intragroup social aggressiveness achieved significance. That is, the regression coefficient for narcissism in the prediction of sorority members’ intragroup social
aggressiveness was significantly different from zero at $p < .05$. As narcissism increased 1 standard deviation, sorority members’ intragroup social aggressiveness increased .02 standard deviations ($b = .02, \beta = .15, SE = .01, p < .01$).

Hypothesis 5 predicted that sorority members’ higher reports of collective narcissism would predict higher levels of their own intergroup social aggressiveness. The new path analysis model supports the fifth hypothesis because the direct path from collective narcissism to sorority member intergroup social aggressiveness achieved significance. Specifically, the regression coefficient for collective narcissism in the prediction of sorority members’ intergroup social aggressiveness was significantly different from zero at $p < .05$. As collective narcissism increased 1 standard deviation, sorority members’ intergroup social aggressiveness increased .06 standard deviations ($b = .06, \beta = .12, SE = .02, p < .01$).

Hypothesis 6 predicted that sorority members’ higher reports of their sororities’ intergroup status would predict higher levels of their own intergroup social aggressiveness. The new path analysis model supports the sixth hypothesis because the direct path from sorority intergroup status to sorority member intergroup social aggressiveness achieved significance. That is, the regression coefficient for sorority intergroup status in the prediction of sorority members’ intergroup social aggressiveness was significantly different from zero at $p < .05$. As sorority intergroup status increased 1 standard deviation, sorority members’ intergroup social aggressiveness increased .08 standard deviations ($b = .08, SE = .03, \beta = .13, p < .01$).
Hypothesis 7 predicted that sorority members’ higher reports of their own intragroup status would predict higher levels of their own intragroup social aggressiveness. The hypothesized path analysis model does not support the seventh hypothesis because the direct path from sorority member intragroup status to sorority member intragroup social aggressiveness did not achieve significance. Specifically, the regression coefficient for sorority member intragroup status in the prediction of sorority members’ intragroup social aggressiveness was not significantly different from zero at $p < .05$ ($b = .02, SE = .03, \beta = .03, p = .54$).

Hypothesis 8 predicted that sorority members’ higher reports of their sororities’ intergroup social aggressiveness would predict higher levels of their own intergroup social aggressiveness. The new path analysis model supports the eighth hypothesis because the direct path from sorority intergroup social aggressiveness to sorority member intergroup social aggressiveness achieved significance. That is, the regression coefficient for sorority intergroup social aggressiveness in the prediction of sorority members’ intergroup social aggressiveness was significantly different from zero at $p < .05$. As sorority intergroup social aggressiveness increased 1 standard deviation, sorority members’ intergroup social aggressiveness increased .32 standard deviations ($b = .32, SE = .04, \beta = .63, p < .001$).

Hypothesis 9 predicted that sorority members’ higher reports of their sororities’ intragroup social aggressiveness would predict higher levels of their own intragroup social aggressiveness. The new path analysis model supports the ninth hypothesis because the direct path from sorority intragroup social aggressiveness to sorority member
intragroup social aggressiveness achieved significance. Specifically, the regression coefficient for sorority intragroup social aggressiveness in the prediction of sorority members’ intragroup social aggressiveness was, indeed, significantly different from zero at $p < .05$. As sorority intragroup social aggressiveness increased 1 standard deviation, sorority members’ intragroup social aggressiveness increased .31 standard deviation ($b = .31$, $SE = .05$, $\beta = .62$, $p < .001$).

Hypothesis 10 predicted that sororities’ intergroup social aggressiveness would mediate the relationship between sororities’ intergroup status and sorority members’ own levels of intergroup social aggressiveness. The hypothesized path analysis model does not support the tenth hypothesis because the path from sorority intergroup status to sorority intergroup social aggressiveness did not achieve significance. In order for mediation to occur, the path from sorority intergroup status to sorority intergroup social aggressiveness would need to achieve significance. However, it was not significantly different from zero at $p < .05$ ($b = -.08$, $SE = .08$, $\beta = -.06$, $p = .35$). Thus, mediation could not occur.
CHAPTER EIGHT: DISCUSSION

The present study emerged out of a need to understand the perpetration of intergroup and intragroup social aggression (i.e., social aggressiveness) amongst young adult females in college sororities. Although little is known about factors related to young adult females’ identities that might influence their propensity to socially aggress in college sororities, studies indicate that identity is tied to the perpetration of social aggression and that certain characteristics of a person’s identity may predispose them to socially aggress against others. As a result, the main objective of the present study was to determine if individual and group identity factors—unstable self-esteem, narcissism, sorority member intragroup status, collective narcissism, sorority intergroup status, sorority intergroup social aggressiveness, and sorority intragroup social aggressiveness—were predictive of young adult females’ intergroup and intragroup social aggressiveness in college sororities.

Social identity theory (Tajfel & Turner, 1979) and social learning theory (Bandura, 1977) informed this study and its predictions. According to social identity theory, people are motivated to maintain a positive social identity in social groups to which they belong (Tajfel & Turner). When facing negative social evaluations from others, social identity theory posits that people may behave in ways that are socially aggressive. Although research on social identity theory and social aggressiveness is still
in its infancy (see Willer & Cupach, 2011 for a review), the theory is a useful guide for understanding why social aggression arises in social groups such as college sororities.

Because research suggests that some people are more threatened by negative social evaluations than others and will, thus, be more inclined to react in ways that are socially aggressive, a look beyond social identity theory to aspects of a person’s identity was necessary. Thus, the present study utilized information on individual and group identity factors in order to determine if unstable self-esteem, narcissism, collective narcissism, sorority intergroup status, and sorority member intragroup status were predictive of young adult females’ intergroup and intragroup social aggressiveness in college sororities.

Additionally, social learning theory was also employed in the present study. Social learning theory (Bandura, 1977) posits that people acquire and vicariously imitate behavior through the process of observational learning. Most research on social learning theory focuses on the modeling and imitation of overt forms of aggression (e.g., physical). However, recent efforts to extend social learning theory indicate that observational learning creates conditions whereby people also model and imitate covert forms of aggression (Doran & Willer, 2012). Thus, social learning theory informed the present study’s investigation of sororities’ contributions to the individual behavior of its group members; specifically, the present study utilized social learning theory in order to determine if sororities’ intergroup and intragroup social aggressiveness were predictive of sorority members’ intergroup and intragroup social aggressiveness.
Using social identity theory and social learning theory as theoretical guides, the results for the present study confirm that many individual and group identity factors do, indeed, predict young adult females’ intergroup and intragroup social aggressiveness in college sororities.

In what follows, I will discuss the results of the present study. First, I will present the results for each hypothesis. Second, I will discuss the results of additional relationships in the new path analysis model. Third, I will address the theoretical and practical implications of the present study. Fourth, I will address the limitations of the present study. Last, I will offer directions for future research.

HYPOTHESES

Hypothesis 1, which predicted that sorority members’ higher reports of unstable self-esteem would predict higher reports of their own levels of intergroup social aggressiveness, was not supported. That is, higher reports of unstable self-esteem did not predict higher levels of young adult females’ intergroup social aggressiveness in college sororities. Because studies have found associations between unstable self-esteem and peoples’ propensities for anger and hostility towards others, I expected that this hypothesis would be supported (Kernis, Grannemann, & Barclay, 1989). Nevertheless, lack of support for Hypothesis 1 is intriguing and will now be discussed.

Although unstable self-esteem did not predict sorority member intergroup social aggressiveness, there is reason to believe an interaction between self-esteem stability and self-esteem level may have predicted sorority member intragroup social aggressiveness. A closer look at Kernis, Grannemann, and Barclay’s (1989) investigation of self-esteem
stability reveals that people with unstable high self-esteem experienced substantially
greater dispositional tendencies to experience anger and hostility than people with stable
low self-esteem, unstable low self-esteem, and stable high self-esteem individuals. Given
that people with unstable high self-esteem and unstable low self-esteem scored very
differently in terms of their dispositional tendencies to experience anger and hostility
towards others, I believe my failure to measure young adult females’ self-esteem levels
and account for the ways in which this might have interacted with self-esteem stability to
influence sorority member intergroup social aggressiveness was a mistake and likely
explains why Hypothesis 1 was not supported.

Although Hypothesis 1 was not supported, Hypothesis 2, which predicted that
sorority members’ higher reports of unstable self-esteem would predict higher levels of
their own levels of intragroup social aggressiveness, was supported. Specifically, higher
reports of unstable self-esteem do predict higher levels of young adult females’
intragroup social aggressiveness in college sororities. I expected that this hypothesis
would be supported because of research on associations between unstable self-esteem and
peoples’ propensities for anger and hostility towards others (Kernis, Grannemann, &
Barclay, 1989). Yet support for this hypothesis is intriguing considering the lack of
support for its parallel prediction, Hypothesis 1.

Unlike Hypothesis 1, the results for Hypothesis 2 confirm that unstable self-
esteeem does, indeed, predict sorority member intragroup social aggressiveness. This is
important because it highlights the complexity of behavioral patterns within and between
social groups; specifically, the idea that behavioral patterns within and between social
groups are not the same and are influenced by factors in unique and distinctly different ways. Therefore, it may be that unstable self-esteem predicts young adult females’ intragroup social aggressiveness in college sororities because behavioral patterns within social groups are not the same as behavioral patterns between social groups. Thus, factors that influence behavioral patterns within social groups do not necessarily influence behavioral patterns that occur between social groups and vice versa. As a result, it is especially important that scholars regard and treat sorority member intergroup social aggressiveness and sorority member intragroup social aggressiveness as distinct forms of social aggression and recognize that each form of social aggression is influenced by factors in unique and distinctly different ways.

The results for Hypothesis 3, which predicted that sorority members’ higher reports of narcissism would predict higher levels of their own intergroup social aggressiveness, are insightful. Interestingly, this hypothesis was initially supported in the hypothesized path analysis model. According to the hypothesized path analysis model, higher reports of narcissism did predict higher levels of young adult females’ intergroup social aggressiveness in college sororities (see Figure 4). Results from a correlation matrix also confirm that the variables are positively associated (see Table 3). However, when more paths were added to create a new path analysis model (see Figure 5), the hypothesis did not achieve significance. This likely occurred because other paths in the new path analysis model were sucking up the correlations, which did not now allow the path from narcissism to young adult females’ intergroup social aggressiveness to achieve significance. Given that the relationship between narcissism and sorority member
intergroup was relatively weak in the hypothesized path analysis model \((r = .20)\), it makes sense that the path from narcissism to sorority member intergroup social aggressiveness would not remain significant in the new path analysis model. Thus, it appears that other variables in the present study (i.e., collective narcissism) more strongly predict sorority member intergroup social aggressiveness.

Although Hypothesis 3 was not supported, Hypothesis 4, which predicted that sorority members’ higher reports of narcissism would predict higher levels of their own intragroup social aggressiveness, was supported. That is, higher reports of narcissism did predict higher levels of young adult females’ intragroup social aggressiveness in college sororities. This hypothesis was likely supported because associations between narcissism and aggression have received substantial empirical support (Brown, 2004; Locke, 2009, Rhodewalt & Morf, 1995; Ruiz, Smith, & Rhodewalt, 2001; Bushman & Baumeister, 1998). In spite of the lack of support for Hypothesis 3, support for Hypothesis 4 confirms that narcissism does, indeed, predict sorority member intragroup social aggressiveness. Thus, the relationship between narcissism and sorority member intragroup social aggressiveness was strong enough to remain significant after more paths were added to create the new path analysis model. As a result, support for this hypothesis further illustrates the need to consider and treat sorority member intergroup social aggressiveness and sorority member intragroup social aggressiveness as distinct forms of social aggression and, therefore, recognize that each form of social aggression is influenced by factors in unique and distinctly different ways.
Hypothesis 5, which predicted that sorority members’ higher reports of collective narcissism would predict higher levels of their own intergroup social aggressiveness, was supported. Specifically higher reports of collective narcissism did predict higher levels of young adult females’ intergroup social aggressiveness in college sororities. I expected that this hypothesis would be supported because research suggests that the relationship between collective narcissism and intergroup aggression is “analogous to the mechanism underlying the link between individual narcissism and interpersonal aggressiveness” and that collective narcissists will behave in ways that are similar to narcissists (de Zavalá et al., 2009, p. 1075).

Nevertheless, support for Hypothesis 5 in insightful considering the lack of support for Hypothesis 3 and support for Hypothesis 4. Although narcissism did not predict sorority member intergroup social aggressiveness, it did predict sorority member intragroup social aggressiveness. Given that collective narcissism is predictive of sorority member intergroup social aggressiveness but not associated with sorority member intragroup social aggressiveness (see Table 3), it appears that narcissism may be a more useful concept for understanding intragroup behavioral patterns and that collective narcissism may be a more useful concept for understanding intergroup behavioral patterns. Therefore, I believe it would be wise to consider that narcissistic views of the self relate more closely to peoples’ intragroup behavioral patterns, whereas narcissistic views of a group relate more closely to peoples’ intergroup behavioral patterns.

Hypothesis 6, which predicted that sorority members’ higher reports of their sororities’ intergroup status would predict higher levels of their own intergroup social
aggressiveness, was supported. That is, higher reports of sorority intergroup status did predict higher levels of young adult females’ intergroup social aggressiveness in college sororities. Support for this hypothesis coincides with social identity theorizing, which suggests that ingroup members are motivated to maintain the high status of their group, even if this means behaving in ways that are socially aggressive towards outgroup members. Because recent studies confirm that the high status of a social group (i.e., high-group centrality or visibility) is predictive of aggressive and deviant behavior in group members (Ellis & Zarbatany, 2007), I expected that Hypothesis 6 would be supported. Thus, it appears that the high intergroup status of a college sorority does, indeed, predict higher levels of socially aggressive behavior in its members.

Interestingly, the two remaining status hypotheses were not supported. Hypothesis 7, which predicted that sorority members’ higher reports of their own intragroup status would predict higher levels of their own intragroup social aggressiveness, was not supported. Thus, higher reports of intragroup status did not predict higher levels of young adult females’ intragroup social aggressiveness in college sororities. Similarly, Hypothesis 10, which predicted that sororities’ intergroup social aggressiveness would mediate the relationship between sororities’ intergroup status and sorority members’ reports of their own levels of intergroup social aggressiveness, was not supported. Thus, higher reports of sorority intergroup status did not predict higher levels of sororities’ intergroup social aggressiveness, which in turn did not predict higher levels of their young adult females’ intergroup social aggressiveness. I expected that both of these hypotheses would be supported because associations between status and intergroup and
intragroup member aggressiveness in social groups has received considerable empirical support (Cillessen & Mayeuz, 2007; LaFontana & Cillessen, 2002; Xie, Swift, Cairns, & Cairns, 2002; Lease, Kennedy, & Axelrod, 2002). However, in both cases higher intragroup and higher intergroup status did not predict higher levels of social aggressiveness.

I believe Hypothesis 7 and Hypothesis 10 may not have been supported for two reasons. First, the hypotheses may not have been supported because of the social costs of socially aggressing in college sororities. In both cases, it may be that the risks associated with socially aggressing towards ingroup and outgroup members are too costly. Rather than risk their high intragroup status or their sororities’ high intergroup status, young adult females may, instead, strategically avoid behaving in ways that could be perceived as socially aggressive. If, as social identity theory posits, people are motivated to maintain a positive social identity as means to enhance their self-concept (Tajfel & Turner, 1979), it is possible that young adult females may behave nicely rather than in ways that are socially aggressive in order to maintain their high intragroup status or their sororities’ high intergroup status.

Yet it may also be that young adult females who have high intragroup statuses and those that are members of high intergroup status sororities were not completely honest when answering questions about their own and their sororities’ levels of social aggressiveness. In the present study, participants may have been reluctant to answer questions about their own and their sororities’ levels of social aggressiveness. Fear of rejection and concern for social desirability may have prevented participants from
answering questions about their own and their sororities’ levels of social aggressiveness honestly. Since there are inherent flaws with self-reports, it is important to recognize that lack of support for this hypothesis may be attributable to how social aggressiveness was measured and how young adult females responded to questions about their own and their sororities’ levels of social aggressiveness.

The two remaining hypotheses, Hypothesis 8 and Hypothesis 9, were both supported. Both of these hypotheses were related to social learning. Specifically, Hypothesis 8 predicted that sorority members’ higher reports of their sororities’ intergroup social aggressiveness would predict higher levels of their own intergroup social aggressiveness and Hypothesis 9 predicted that sorority members’ higher reports of their sororities’ intragroup social aggressiveness would predict higher levels of their own intragroup social aggressiveness. The results confirm that higher levels of sorority intergroup social aggressiveness predict higher levels of young adult females’ intergroup social aggressiveness in college sororities and that higher levels of sorority intragroup social aggressiveness predict higher levels of young adult females’ intragroup social aggressiveness. I expected that these hypotheses would be supported because studies indicate that aggressive behavior is a function of social learning and that associating with aggressive peers increases a person’s propensity to behave aggressively (Cairns & Cairns, 1994; Crosnoe & Needham, 2004; Dishion & Owen, 2002; Ellis & Zarbatany, 2007; Espelage et al., 2003; Xie, Cairns, & Cairns, 2001).

Nevertheless, support for both of these hypotheses is important and will now be discussed. First, the results indicate that sorority intergroup social aggressiveness and
sorority intragroup social aggressiveness are the strongest predictors of young adult females’ intergroup and intragroup social aggressiveness in college sororities (see Figure 5). This is important because the strength and magnitude of these relationships confirm that not only is social aggression somewhat learned behavior, but that social learning is a powerful predictor of socially aggressive behavior. Second, demonstrating that social aggression is a function of social learning aids recent efforts to extend the scope of social learning theory beyond overt forms of aggression (e.g., physical) to include covert forms of aggression (Doran & Willer, 2012). This is important because it may encourage scholars whose work concerns social aggression and its related constructs (i.e., bullying, indirect aggression, relational aggression) to extend the scope of social leaning theory in new and exciting ways.

To summarize, ten hypotheses were presented in the present study and tested for statistical significance at $p < .05$. Of the ten hypotheses that were tested, six hypotheses, including Hypothesis 2, Hypothesis 4, Hypothesis 5, Hypothesis 6, Hypothesis 8, and Hypothesis 9, were supported. The remaining hypotheses, Hypothesis 1, Hypothesis 3, Hypothesis 7, and Hypothesis 10, were not supported.

In the next section, I will discuss the results of additional relationships in the new path analysis model.

ADDITIONAL RELATIONSHIPS IN THE NEW PATH ANALYSIS MODEL

In addition to the results of the present study’s hypotheses, it is important to now talk about the additional statistically significant relationships that were in the new path analysis model (see Figure 5 and Table 4). First, I will highlight several intriguing results
for relationships that pertain to the variable narcissism. Second, I will discuss results for additional relationships that pertain to the status related variables—intergroup status and intragroup status. Last, I will talk about results for additional relationships that pertain to the social learning factors.

**NARCISSISM**

The results from the new path analysis model indicate that narcissism is negatively associated with unstable self-esteem. That is, lower levels of narcissism are associated with higher levels of unstable self-esteem. This is important because of conflicting research and views on associations between self-esteem (e.g., low self-esteem, high self-esteem) and narcissism (see Baumeister, Bushman, & Campbell, 2000 for a review). Scholars have just recently begun examining other components of a person’s self-esteem in relation to narcissism (Zeigler-Hill, 2005), including self-esteem stability. Thus, demonstrating that unstable self-esteem and narcissism are negatively associated is a significant contribution to theorizing about self-esteem and narcissism and is important for scholars whose work focuses on testing associations between these two concepts. My hope is that this finding will pave the way for new conversations and ways of conceiving of narcissism and self-esteem in the literature.

Second, the results indicate that narcissism is positively associated with collective narcissism. Specifically, higher levels of narcissism are associated with higher levels of collective narcissism. This finding is insightful because it challenges de Zavala, Cichocka, Eidelson, and Jayawickreme’s (2009) theorizing about the concept of collective narcissism. Although de Zavala, Cichocka, Eidelson, and Jayawickreme claim,
“one form of narcissism does not have to automatically lead to another, and people can be narcissistic only at an individual or only at a collective level,” the concepts should be positively associated if collective narcissism is, in fact, merely an extension of individual narcissism into the interpersonal domain (2009, p. 1075). Because narcissism and collective narcissism are positively correlated in the present study, I believe it would be wise to reconsider the ways in which these two concepts are thought to be associated. Specifically, the idea that people who are more narcissistic on an individual level are, indeed, more inclined to have more narcissistic views about social groups to which they belong.

More important, this finding challenges de Zavala, Cichoka, Eidelson, and Jayawickreme’s (2009) view that “in social situations that increase collective but not individual narcissism, the link between both forms of narcissism should be, at least temporarily, weakened” (2009, p. 1091). Not only do the results indicate that collective narcissism and narcissism are positively associated within social situations (i.e., college sororities), but they indicate that the relationship between these two concepts is anything but weak. In fact, it is strong (b = .57). Given that collective narcissism is a concept that was just recently introduced, my hope is that addressing the ways in which the present study’s findings contradict theorizing about the concept will encourage scholars, particularly de Zavala, Cichoka, Eidelson, and Jayawickreme, to reconsider how collective narcissism is conceptualized in the literature.

Third, the results indicate that narcissism is positively associated with sorority intergroup status and sorority member intragroup status. Thus, higher levels of narcissism
are associated with higher levels of sorority intergroup status and sorority member intragroup status. These findings are intriguing because they reveal that people who have narcissistic views about themselves are also more inclined to report higher intergroup statuses and higher intragroup statuses for social groups to which they belong. Because narcissists are often described as “charming and socially facile,” it seems reasonable that narcissism is associated with higher levels of intergroup status and higher levels of intragroup status (Morf & Rhodewalt, 2001, p. 177). An important question that arises from this finding that may prompt future theoretical inquiry is contemplating the directionality of these relationships. That is, seeking to understand if people have narcissistic views about themselves because they belong to social groups with high intergroup statuses and because they have high intragroup statuses or vice versa.

Last, the results indicate that narcissism is positively associated with sorority intergroup social aggressiveness and sorority intragroup social aggressiveness. Specifically, higher levels of narcissism are associated with higher levels of sorority intergroup social aggressiveness and sorority intragroup social aggressiveness. I expected that I expected that narcissism might also be associated with sorority intergroup social aggressiveness and sorority intragroup social aggressiveness because associations between narcissism and aggression have received substantial empirical support (Brown, 2004; Locke, 2009, Rhodewalt & Morf, 1995; Ruiz, Smith, & Rhodewalt, 2001; Bushman & Baumeister, 1998). These findings are insightful considering narcissism is also predictive of and associated with young adult females’ intergroup and intragroup social aggressiveness in college sororities. As a result, it appears that narcissism predicts
and is positively associated with the perpetration of social aggression on both an individual (e.g., sorority member) and group (e.g., sorority) level. This is important because knowing that narcissism predicts and is associated social aggressiveness on an individual and group level is a significant contribution to the body of literature on narcissism and social aggression.

SORORITY INTERGROUP STATUS AND SORORITY MEMBER INTRAGROUP STATUS

The results indicate that sorority intergroup status is negatively associated with sorority intragroup social aggressiveness. That is, higher levels of sorority intergroup status predict lower levels of sorority intragroup social aggressiveness. The fact that sorority intergroup status is negative associated with sorority intragroup social aggressiveness is significant. It appears that the higher a college sororities’ intergroup status is in comparison to other sororities, the less socially aggressive its members are to each other. It may be that members of high intergroup status college sororities are more inclined to behave in ways that are socially aggressive when the intended target is a member of a rival sorority rather than an ingroup member. When it comes to ingroup members, young adult females who belong to high intergroup status college sororities may choose, instead, to ‘play nice’ and get along well with other ingroup members. Thus, it might be that sorority intergroup status is negatively associated with sorority intragroup social aggressiveness because the costs of socially aggressing when you belong to a high intergroup status college sorority are too high.
Although sorority member intragroup status did not predict any of the endogenous variables in the present study, it is associated with the exogenous variables unstable self-esteem, narcissism (as previously discussed), collective narcissism, and sorority intergroup status. Interestingly, the results indicate that sorority member intragroup status is negatively associated with unstable self-esteem. Specifically, higher levels of sorority member intragroup status are associated with lower levels of unstable self-esteem. It may be that sorority members with unstable self-esteem do not have high intragroup statuses because the magnitude of their short-term fluctuations in their feelings of self-worth (Kernis, 2005) is poorly perceived by ingroup members. Thus, sorority members with unstable self-esteem, who go from feeling very positive about themselves at one moment in time to very negative the next or vice versa, may not be well-liked by other ingroup members and/or may find it difficult to obtain a high intragroup status because of their unstable self-concepts.

Additionally, sorority member intragroup status is positively associated with collective narcissism. That is, higher levels of sorority member intragroup status are associated with higher levels of collective narcissism. This is intriguing because it indicates that young adult females who have high intragroup statuses are also more inclined to have highly collectively narcissistic views about their college sororities. Similar to a point I made previously, an important question that arises from this finding that may prompt future theoretical inquiry is contemplating the directionality of this relationship. Specifically, seeking to understand if people have high intragroup statuses
because they have highly collectively narcissistic views about their social groups or vice versa.

Furthermore, sorority member intragroup status is positively associated with sorority intergroup status. That is, higher levels of sorority member intragroup status are associated with higher levels of sorority intergroup status. This is insightful because it appears that young adult females who have high intragroup statuses for college sororities to which they belong are also more inclined to report high intergroup statuses for their college sororities. It may be that the same mechanism underlying the association between narcissism and collective narcissism applies to the association between sorority member intragroup status and sorority intergroup status. Specifically, that sorority intergroup status is a mere extension of people’s perceptions about status into the interpersonal domain. Thus, it may be that young adult females who have relatively high perceptions about their own relative likeability and influence within a college sorority are also more inclined to think positively and have relatively high perceptions about their college sororities’ relatively likeability and influence in comparison to other college sororities.

SOCIAL LEARNING

The present study yielded several additional relationships in relation to social learning and social aggressiveness. For example, the results indicate that sorority intragroup social aggressiveness predicts young adult females’ intergroup social aggressiveness, young adult females’ intragroup social aggressiveness predicts young adult females’ intergroup social aggressiveness, and sorority intergroup social aggressiveness and sorority intragroup aggressiveness are positively correlated. Although
the correlation matrix indicates that sorority intergroup social aggressiveness and young adult females’ intragroup social aggressiveness are positively correlated (see Table 3), the path in the new path analysis model from sorority intergroup social aggressiveness to young adult females’ intragroup social aggressiveness did not achieve significance (see Figure 5). This likely occurred because other paths in the new path analysis model were sucking up the correlations, which did not allow the path from sorority intergroup social aggressiveness to young adult females’ intragroup social aggressiveness to achieve significance. Thus, it appears that other variables in the present study (i.e., sorority intragroup social aggressiveness) more strongly predict sorority member intragroup social aggressiveness.

Most of the aforementioned relationships between factors related to social learning and social aggressiveness are positive, meaning that one form of social aggressiveness either predicts or is associated with higher levels of another form of social aggressiveness. However, there is an important exception. Unlike the other relationships, sorority intragroup social aggressiveness actually predicts lower levels of young adult females’ intergroup social aggressiveness. This exception is important because it indicates that the more socially aggressive a sorority is towards its own ingroup members, the less socially aggressive ingroup members are towards outgroup members. There are two possible explanations for this finding.

First, it may be that many young adult females who belong to socially aggressive college sororities spend most of their time interacting with ingroup members, which inadvertently decreases the amount of time they can spend interacting with outgroup
members and, thus, the amount of time they can behave in socially aggressive ways towards them. Therefore, it may be that time spent interacting with ingroup members prevents young adult females in college sororities from behaving in socially aggressive ways towards members of other sororities, which explains why sorority intragroup social aggressiveness predicts lower, rather than higher, levels of young adult females’ intergroup social aggressiveness. A second explanation is that young adult females in college sororities are more willing to report higher levels of social aggressiveness for their sororities than for themselves. Given that the mean scores are higher for sorority intergroup social aggressiveness ($M = 2.12$) and sorority intragroup social aggressiveness ($M = 2.17$) than for sorority member intergroup social aggressiveness ($M = 1.49$) and sorority member intragroup social aggressiveness ($M = 1.54$) (see Table 4), this explanation likely explains why the path from sorority intragroup social aggressiveness predicts lower levels of young adult females’ intergroup social aggressiveness. Thus, it appears that sorority intragroup social aggressiveness predicts lower levels of young adult females’ intergroup social aggressiveness because young adult females are more willing to report higher levels of social aggressiveness for their sororities than for themselves.

Also important to note is that young adult females’ intragroup social aggressiveness is predictive of young adult females’ intergroup social aggressiveness (see Figure 5). Because both of these variables are endogenous, a correlation between them could not be estimated in the new path analysis model. In path analysis, correlations can only be estimated when the variables are exogenous. As a result, a regression coefficient was calculated for young adult females’ intragroup social aggressiveness in the prediction
of young adult females’ intergroup social aggression. Nevertheless, I believe it is more reasonable to presume, as the correlation matrix indicates (see Table 3), that young adult females’ intergroup and intragroup social aggressiveness are positively correlated rather than one being predictive of the other.

In the next section, I will address the theoretical and practical implications of the present study.

THEORETICAL AND PRACTICAL IMPLICATIONS

There are several important theoretical and practical implications of this study. First, the results of the present study confirm that social aggressiveness exists aplenty in college sororities and that it can cast a dark shadow over the benefits of sorority membership. This is important because nationwide membership in college sororities “is up, growing a bit more than 15 percent from 2008 to 2012, to 285,543 undergraduates” (Moore, 2012, para. 10). Because social aggression is associated with a number of negative outcomes for both perpetrators and targets (see Crick & Grottpeter, 1995; Card, Stucky, Sawalani, & Little, 2008; Werner & Crick, 1999; Burton, Hafetz, & Henniger, 2007), shedding light on one of the drawbacks of sorority membership is important because of the risks it poses to the well-being of young adult females in college sororities.

Second, the results confirm that many individual and group identity factors have a direct influence on young adult females’ intergroup social aggressiveness and intragroup social aggressiveness in college sororities. This is especially important because concepts such as unstable self-esteem and collective narcissism are relatively new and have been applied very little in communication scholarship. In fact, the present study was the first of
its kind to examine links between unstable self-esteem and the perpetration of covert forms of aggression as well as to situate the concept of collective narcissism within the context of social groups. By demonstrating that unstable self-esteem and collective narcissism are predictive of social aggressiveness, the results not only confirm that these concepts are related to the perpetration of social aggression but that they have a meaningful place in communication scholarship. Thus, the results are important because they may encourage future work on unstable self-esteem and collective narcissism as they relate to other communication phenomena, particularly dark side scholarship which focuses on the perpetration of other forms of covert aggression (e.g., relational aggression, indirect aggression), violence and stalking behaviors, intimate partner violence, and hypermasculinity and hazing in sports culture.

Third, the results confirm that social aggression is not only somewhat learned behavior, but that social learning is a powerful predictor of social aggressiveness. As I previously stated, sorority intergroup social aggressiveness and sorority intragroup social aggressiveness are the strongest predictors of young adult females’ intergroup and intragroup social aggressiveness in college sororities (see Figure 5). In addition to these findings, there are several additional significant relationships between factors related to social learning and social aggressiveness in the new path analysis model (see Figure 5 and Table 4).

In general, the results in relation to social learning and social aggressiveness are perhaps the most significant findings of the present study because of their theoretical importance. Until recently, most research on social learning theory has focused on the
modeling and imitation of overt forms of aggression (e.g., physical). As a result, scholars mostly conceive of social learning theory as a useful theoretical framework for understanding the modeling and imitation of overt forms of aggression. However, recent efforts to extend social learning theory prove that observational learning also creates conditions whereby people model and imitate covert forms of aggression (Doran & Willer, 2012). Therefore, the results are significant because not only do they further demonstrate that covert forms of aggression are, indeed, learned, but they present a compelling argument for why the scope of social learning theory can and should be extended to include these forms of aggression. Thus, my hope is that the results of the present study will push the boundaries of social learning theory and encourage scholars to apply the theory in new and exciting ways.

To summarize, the aforementioned results are theoretically and practically important for scholars and clinicians whose work concerns social aggression and those seeking to better understanding the phenomenon of social aggression in college sororities. Shedding light on the pervasiveness of social aggressiveness in college sororities is important because nationwide membership in college sororities is up and because of the negative outcomes for both perpetrators and targets of social aggression. Knowing what individual and group factors predict social aggressiveness is also important because it is one way scholars and clinicians can meaningfully address some of its negative consequences. Last, demonstrating that social aggressiveness is somewhat learned behavior further highlights the need to extend the scope of social learning theory beyond
overt forms of aggression to include forms of covert aggression, which is of great theoretical importance.

LIMITATIONS OF THE PRESENT STUDY

The present study is not without its limitations. First, several young adult females who could have been participants in the present study and valuably contributed to the present study’s analysis either chose not to participate or were prevented from participating because of strict rules from their college sororities’ national organizations. For example, I received several email messages from leaders of college sorority chapters during the recruitment phase of the present study, explaining their disinterest and unwillingness to participate. Whereas some participants proclaimed that after careful consideration they had decided not to participate, others were more straightforward in their denial, claiming that though they appreciated my invitation to participate, they would not be participating because as a sisterhood they do their best to “foster a spirit of community and support, encourage positivity and provide resources for girls who have personal issues with each other so that they can be resolved and we can maintain a safe space for everyone.” Some went so far as to say that they would not participate because it was not “in the best interests of the sisterhood.”

Some leaders of college sorority chapters also suggested that their chapter was not allowed to participate in research because of strict rules that had been set in place by their national organizations. Some participants wrote that they are not supposed to take part in surveys because “most media and studies of sororities have led national organizations to adopt strict policies regarding any external studies.” Others cited policies set in place by
their national organizations, stating that their collegiate chapter “and/or individual member(s) on behalf of the chapter may not participate in the collection of information via questionnaires and/or surveys about the chapter.” In general, the obstacles I encountered during recruitment, both because some participants chose not to participate and because some were not allowed to participate, are limitations of the present study and are important to acknowledge.

Second, young adult females who participated in the present study may not have responded to questions about their own levels of intergroup and intragroup social aggressiveness honestly. Unlike other measures of assessing aggressive behavior (e.g., teacher reports, peer reports), self-reports can be problematic because participants may not perceive themselves and their behavioral patterns as accurately as others. As a result, participants may have given false answers to questions about their own levels of intergroup and intragroup social aggressiveness rather than answers that accurately reflect the reality of their experiences as perpetrators of social aggression. Additionally, some participants may have given socially desirable answers to questions about their own levels of intergroup and intragroup social aggressiveness due to fear of rejection and out of a desire for social approval from other ingroup members. Although I ensured anonymity and encouraged participants to answer questions about their own levels of intergroup and intragroup social aggressiveness honestly, it is important to recognize that potential flaws that are inherent in self-reports of aggressive behavior.

The potential flaws with self-reports may have influenced participants’ answers to questions about their college sororities’ intergroup and intragroup social aggressiveness
as well. In addition to not perceiving the behavioral patterns of their college sororities as accurately as others, participants may have given socially desirable answers to questions about their sororities’ levels of intergroup and intragroup social aggressiveness due to fear of rejection from ingroup members and out of a desire to uphold a socially desirable perception of their college sorority. This may be especially true for participants who feel structurally committed to their college sororities. As Vangelisti (2007) writes, “individuals who are structurally committed believe that they must remain in their relationship” (p. 137). Although relationships that are characterized by structural commitment are generally considered to be involuntary (i.e., family relationships), sorority members may come to feel as though they are structurally committed to their college sororities in ways that are similar to involuntary relationships. In fact, the bounds of ‘sisterhood’ may be so strong for some sorority members that the risks of answering questions honestly about their college sororities’ intergroup and intragroup social aggressiveness are too costly. As a result, it is important to recognize the potential flaws in self-reports and how this may have also influenced participants’ answers to questions about sororities’ intergroup and intragroup social aggressiveness.

Last, the majority of participants for the present study were mostly White/non-Hispanic (n = 191, 86.0%). Because college fraternities and sororities are predominantly White/non-Hispanic (see DeSantis, 2007), I was not surprised that the majority of participants for the present study were White/non-Hispanic. Nevertheless, it is important to recognize that the findings largely reflect the experiences of White/non-Hispanic young adult females in college sororities rather than a heterogeneous sample of young
adult females in college sororities. This is important to recognize because our understanding of social aggression will continue to be limited until scholars do more to meaningfully address cultural differences in their work. Thus, more efforts should be made in the future to recruit participants from various cultures in studies on social aggression.

In the next section, I will offer some directions for future research.

DIRECTIONS FOR FUTURE RESEARCH

In spite of these limitations, the strengths of the present study are significant and illuminate important suggestions for future inquiry. First, I will discuss the possibility of examining links between jealousy and envy and social aggressiveness in college sororities. Second, I will discuss the importance of examining the bright side of social aggressiveness in college sororities. Last, I will discuss how researchers might examine factors related to social learning and other forms of covert aggression.

JEALOUSY AND ENVY

Future scholarship should investigate potential associations between negative emotions and the perpetration of social aggression in college sororities. According to Underwood (2003), a strong negative emotion that is likely related to the perpetration of social aggression is jealousy. Underwood maintains that jealousy can take two forms—social comparison jealousy and social relations jealousy—and that social relations jealousy, which involves fears over the exclusivity of a relationship being in jeopardy, “in the context of children’s friendships likely motivates social aggression” (2003, p. 118). Although researchers have not yet examined associations between social relations
jealousy and social aggressiveness, Underwood maintains that preliminary evidence suggests jealousy “is related to peer reputations for socially aggressive behavior” (p. 118).

Despite the lack of communication scholarship on associations between jealousy and the perpetration of social aggression, researchers have examined jealousy in relation to other forms of covert aggression (i.e., indirect aggression, relational aggression). For example, Arnocky, Sunderani, Miller, and Vaillancourt (2012) found that jealousy predicted females’ perpetration of indirect aggression towards their romantic partners. Culotta and Goldstein (2008) also found that jealousy predicted relational aggressiveness. Specifically, adolescents who were more jealous in their peer relationships tended to engage in relational aggression more often than others. Thus, it is likely that jealousy is also associated with the perpetration of social aggression in college sororities.

Studies indicate that jealousy’s related construct, envy, may also be associated with the perpetration of social aggression in college sororities. For example, studies have found that envy is positively associated with workplace bullying (McGrath, 2010) and the perpetration of indirect aggression amongst adults (Hofer & Busch, 2011). Because negative emotions such as jealousy and envy are likely to arise in social interactions with others when there is competition for resources (e.g., status, power, attention from boys), future scholarship should investigate the role jealousy and envy might have on the perpetration of social aggression in college sororities.
THE BRIGHT SIDE OF SOCIAL AGGRESSIVENESS

Second, future studies should examine the potential bright side of social aggressiveness in college sororities. Given that social aggression is conceived of as behavior that is mostly negative, bad, and something that should be avoided, most studies of social aggression focus on the dark side of victimization and perpetration. However, scholars such as Underwood (2003) claim that it “seems important to recognize that these behaviors may not always predict negative developmental outcomes, may occur for developmental reasons, and may even be related to some types of social skills” (p. 201). For example, it would be particularly insightful to examine how intergroup social aggressiveness might foster ingroup cohesion and a sense of belonging in college sororities. If, as social identity theory posits, people are motivated to maintain a positive social identity as means to enhance their self-concept and engage in a categorization process that positions them favorably as distinct members of ingroups and dissimilar others as members of outgroups (Tajfel & Turner, 1979), than it seems possible that intergroup social aggressiveness might foster ingroup cohesion and a sense of belonging because “social aggression can enable positive distinctiveness with the ingroup” (Willer & Cupach, 2011, p. 311). Another suggestion for future inquiry is examining the functionally ambivalent purpose of gossip in college sororities. Not only might gossip foster ingroup cohesion in college sororities, but it might enhance a sorority members’ intragroup social status, acceptance amongst other group members, and social skills (Willer & Cupach, 2011). In a study by Jaeger, Skelder, and Rosnow (1998) on gossip in college sororities, frequent targets of gossip had more close friends than moderate and
infrequent targets of gossip. Thus, it seems especially important for future scholarship to examine the potential bride side of social aggression in college sororities, particularly the ingroup cohesion intergroup social aggressiveness might foster as well as the functionally ambivalent purpose of gossip.

SOCIAL LEARNING AND OTHER FORMS OF COVERT AGGRESSION

Last, future studies should investigate the influence factors related to social learning might have on the perpetration of other forms of covert aggression (e.g., indirect aggression, relational aggression). Although social aggression, indirect aggression and relational aggression are similar, they are unique and distinct forms of aggression. Thus, it would be insightful to determine if these forms of aggression are also partly learned or if this only applies to social aggression. Thus, in order to extend the scope of social learning theory to include these other forms of covert aggression, scholars should see if factors related to social learning also relate to these forms of aggression. That is, scholars should seek to determine if indirect aggression and relational aggression are also partly learned behavior.
CHAPTER NINE: SUMMARY

The focus of the present study was the perpetration of intergroup (i.e., between) and intragroup (i.e., within) social aggression in college sororities. Social aggression is defined as behavior that is, “directed toward damaging another’s self-esteem, social status, or both, and may take such direct forms as verbal rejection, negative facial expression or body movement, or more indirect forms such as slanderous rumors or social exclusion” (Galen & Underwood, 1997, p. 589). Using social identity theory (Tajfel & Turner, 1979) and social learning theory (Bandura, 1977) as theoretical guides, ten hypotheses were tested in order to determine if individual and group identity factors—unstable self-esteem, narcissism, sorority member intragroup status, collective narcissism, sorority intergroup status, sorority intergroup social aggressiveness, and sorority intragroup social aggressiveness—were predictive of young adult females’ intergroup and intragroup social aggressiveness in college sororities.

Path analysis revealed that many individual identity and group identity factors do, indeed, predict young adult females’ intergroup and intragroup social aggressiveness in college sororities. Although higher levels of unstable self-esteem did not predict higher levels of young adult females’ intergroup social aggressiveness, they did predict higher levels of young adult females’ intragroup social aggressiveness. Similarly, higher levels of narcissism did not predict higher levels of young adult females’ intergroup social aggressiveness but did predict higher levels of young adult females’ intragroup social
aggressiveness. Higher levels of collective narcissism and higher levels of sorority intergroup status were predictive of higher levels of young adult females’ intergroup social aggressiveness. However, higher levels of sorority member intragroup status did not predict higher levels of young adult females’ intragroup social aggressiveness. Additionally, higher levels of sorority intergroup social aggressiveness were predictive of higher levels of young adult females’ intergroup social aggressiveness, whereas higher levels of sorority intragroup social aggressiveness were predictive of higher levels of young adult females’ intragroup social aggressiveness. However, the mediation in the present study was not supported. Specifically, higher levels of sorority intergroup status did not predict higher levels of sorority intergroup social aggressiveness, which did not predict higher levels of young adult females’ intergroup social aggressiveness.

The present study’s findings are important for many reasons. First, the results confirm that social aggressiveness exists aplenty in college sororities and that it can cast a dark shadow over the benefits of sorority membership. Second, the results indicate that several individual and group identity factors have a direct influence on young adult females’ intergroup social aggressiveness and intragroup social aggressiveness in college sororities. Last, the results demonstrate that social aggression is somewhat learned behavior and that social learning is a powerful predictor of social aggressiveness. Limitations of the present study and directions for future research are offered.
REFERENCES


Hillsdale: Erlbaum.


APPENDICES

APPENDIX A

Social aggression includes behaviors that are non-physical in nature and are intended to harm a person’s sense of self and/or a person’s relationship with other people (e.g., friends, boyfriends, acquaintances, co-workers). Such behaviors can include being gossiped about, having vicious rumors spread behind your back, romantic relationship manipulation, and social exclusion. For purposes of this study, you will need to think of a time within the last six months when you did something that was socially aggressive to (1) a member of your sorority and (2) a member of another sorority. The socially aggressive act could have been done face-to-face (e.g., you criticized her character) or behind their back (e.g., you slept with her boyfriend), and could have been done verbally (e.g., you made fun of her) or non-verbally (e.g., you gave her a dirty look or turned away from her as she approached you). Please keep in mind that these are just examples and that you may have done other socially aggressive acts that have not be described here.

Although some socially aggressive acts occur quite often and can be committed by more than one person, please think of specific instances within the last six months when you did something that was socially aggressive towards (1) a member of your sorority and (2) a member of another sorority. In the box below, as best as you can remember, please explain the socially aggressive behaviors you committed. Please be as specific and detailed as you can in your explanations.
Sorority Members’ Intergroup Social Aggressiveness (Modified version of Coyne, Archer, & Eslea’s (2006) Indirect, Social, and Relational Aggression Scale)

Sometimes when we are upset we react in ways that potentially hurt others. The following questions address some of these behaviors that commonly occur in many relationships, even by people who care for each other. Think about when you have behaved in the following ways toward members of other sororities. Using the following scale, indicate the number that best represents how often you have used each behavior within the last year.

1 = Never
2 = Once or twice
3 = Sometimes
4 = Often
5 = Regularly

1. Spread rumors about a member of another sorority
2. Broke confidences
3. Became friends with another person to spite a member of another sorority
4. Left a member of another sorority out on purpose
5. Ignored a member of another sorority
6. Gossiped about a member of another sorority
7. Made fun of a member of another sorority to make them look stupid
8. Wrote something mean about a member of another sorority on my own or someone else’s social network site
9. Made fun of a member of another sorority’s clothes or personality behind their back
10. Got others to do something mean to a member of another sorority
11. Made fun of a member of another sorority’s clothes or personality to her face
12. Huddled in a group and talked about a member of another sorority
13. Tried to destroy a member of another sorority’s friendship
14. Did not invite a member of another sorority to a party or other event you invited others to go to
15. Got others to dislike a member of another sorority.
16. Threatened to break off a friendship with a member of another sorority.
17. Insulted a member of another sorority.
18. Yelled at a member of another sorority.
19. Called a member of another sorority a mean name
20. Gave a member of another sorority a dirty look
21. Rolled your eyes at a member of another sorority.
Sorority Intergroup Social Aggressiveness (Modified version of Coyne, Archer, & Eslea’s (2006) Indirect, Social, and Relational Aggression Scale)

Sometimes when we are upset we react in ways that potentially hurt others. The following questions address some of these behaviors that commonly occur in many relationships, even by people who care for each other. Think about when members of your sorority have behaved in the following ways toward members of other sororities. Using the following scale, indicate the number that best represents how often members of your sorority you have used each behavior within the last year.

1 = Never
2 = Once or twice
3 = Sometimes
4 = Often
5 = Regularly

1. Spread rumors about a member of another sorority
2. Broke confidences
3. Became friends with another person to spite a member of another sorority
4. Left a member of another sorority out on purpose
5. Ignored a member of another sorority
6. Gossiped about a member of another sorority
7. Made fun of a member of another sorority to make them look stupid
8. Wrote something mean about a member of another sorority on their own or someone else’s social network site
9. Made fun of a member of another sorority’s clothes or personality behind their back
10. Got others to do something mean to a member of another sorority
11. Made fun of a member of another sorority’s clothes or personality to her face
12. Huddled in a group and talked about a member of another sorority
13. Tried to destroy a member of another sorority’s friendship
14. Did not invite a member of another sorority to a party or other event they invited others to go to.
15. Got others to dislike a member of another sorority.
16. Threatened to break off a friendship with a member of another sorority.
17. Insulted a member of another sorority.
18. Yelled at a member of another sorority.
19. Called a member of another sorority a mean name
20. Gave a member of another sorority a dirty look
21. Rolled their eyes at a member of another sorority.
Sorority Members’ Intragroup Social Aggressiveness (Modified version of Coyne, Archer, & Eslea’s (2006) Indirect, Social, and Relational Aggression Scale)

Sometimes when we are upset we react in ways that potentially hurt others. The following questions address some of these behaviors that commonly occur in many relationships, even by people who care for each other. Think about when you have behaved in the following ways toward members of your sorority. Using the following scale, indicate the number that best represents how often you have used each behavior within the last year.

1 = Never
2 = Once or twice
3 = Sometimes
4 = Often
5 = Regularly

1. Spread rumors about a member of your sorority
2. Broke confidences
3. Became friends with another person to spite a member of your sorority
4. Left a member of your sorority out on purpose
5. Ignored a member of your sorority
6. Gossiped about a member of your sorority
7. Made fun of a member of your sorority to make them look stupid
8. Wrote something mean about a member of your sorority on my own or someone else’s social network site
9. Made fun of a member of your sorority’s clothes or personality behind their back
10. Got others to do something mean to a member of your sorority
11. Made fun of a member of your sorority’s clothes or personality to her face
12. Huddled in a group and talked about a member of your sorority
13. Tried to destroy a member of your sorority’s friendship
14. Did not invite a member of your sorority to a party or other event you invited others to go to.
15. Got others to dislike a member of your sorority.
16. Threatened to break off a friendship with a member of your sorority.
17. Insulted a member of your sorority.
18. Yelled at a member of your sorority.
19. Called a member of your sorority a mean name
20. Gave a member of your sorority a dirty look
21. Rolled your eyes at a member of your sorority.
Sorority Intragroup Social Aggressiveness (Modified version of Coyne, Archer, & Eslea’s (2006) Indirect, Social, and Relational Aggression Scale)

Sometimes when we are upset we react in ways that potentially hurt others. The following questions address some of these behaviors that commonly occur in many relationships, even by people who care for each other. Think about when members of your sorority have behaved in the following ways toward other members of your sorority. Using the following scale, indicate the number that best represents how often members of your sorority have used each behavior within the last year.

1 = Never
2 = Once or twice
3 = Sometimes
4 = Often
5 = Regularly

1. Spread rumors about a member of your sorority
2. Broke confidences
3. Became friends with another person to spite a member of your sorority
4. Left a member of your sorority out on purpose
5. Ignored a member of your sorority
6. Gossiped about a member of your sorority
7. Made fun of a member of your sorority to make them look stupid
8. Wrote something mean about a member of your sorority on their own or someone else’s social network site
9. Made fun of a member of your sorority’s clothes or personality behind their back
10. Got others to do something mean to a member of your sorority
11. Made fun of a member of your sorority’s clothes or personality to her face
12. Huddled in a group and talked about a member of your sorority
13. Tried to destroy a member of your sorority’s friendship
14. Did not invite a member of your sorority to a party or other event they invited others to go to.
15. Got others to dislike a member of your sorority.
16. Threatened to break off a friendship with a member of your sorority.
17. Insulted a member of your sorority.
18. Yelled at a member of your sorority.
19. Called a member of your sorority a mean name
20. Gave a member of your sorority a dirty look
21. Rolled their eyes at a member of your sorority.
Unstable Self-Esteem (Chabrol, Rousseau, and Callahan’s (2006) Instability of Self-Esteem Scale (ISES))

Please circle the appropriate number for each statement depending on whether you strongly agree, agree, disagree, or strongly disagree with it.

0= disagree strongly, 1= disagree, 3= agree, 4= agree strongly.

1. Sometimes I feel worthless; at other times, I feel that I am worthwhile.
2. Sometimes I feel happy with myself; at other times I feel very unhappy with myself.
3. Sometimes I feel useless; at other times I feel very useful.
4. Sometimes I feel very bad about myself; at other times I feel very good about myself.
Narcissism (Ames, Rose, and Anderson’s (2006) Narcissistic Personality Inventory)

Please read each pair of statements below and place an “X” by the one that comes closest to describing your feelings and beliefs about yourself. You may feel that neither statement describes you well, but pick the one that comes closest. Please complete all pairs.

1. ___ I really like to be the center of attention
   ___ It makes me uncomfortable to be the center of attention

2. ___ I am no better or no worse than most people
   ___ I think I am a special person

3. ___ Everybody likes to hear my stories
   ___ Sometimes I tell good stories

4. ___ I usually get the respect that I deserve
   ___ I insist upon getting the respect that is due me

5. ___ I don't mind following orders
   ___ I like having authority over people

6. ___ I am going to be a great person
   ___ I hope I am going to be successful

7. ___ People sometimes believe what I tell them
   ___ I can make anybody believe anything I want them to

8. ___ I expect a great deal from other people
   ___ I like to do things for other people

9. ___ I like to be the center of attention
   ___ I prefer to blend in with the crowd

10. ___ I am much like everybody else
     ___ I am an extraordinary person

11. ___ I always know what I am doing
     ___ Sometimes I am not sure of what I am doing

12. ___ I don't like it when I find myself manipulating people
     ___ I find it easy to manipulate people

13. ___ Being an authority doesn't mean that much to me

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People always seem to recognize my authority

I know that I am good because everybody keeps telling me so
When people compliment me I sometimes get embarrassed

I try not to be a show off
I am apt to show off if I get the chance

I am more capable than other people
There is a lot that I can learn from other people
Collective Narcissism (de Zavala, Cichocka, Eidelson, and Jayawickreme’s (2009) Collective Narcissism Scale)

Please report the extent to which you agree with the following statements about your sorority using the 7-point Likert scale (1 = totally disagree to 7 = totally agree).

<table>
<thead>
<tr>
<th>Totally Disagree</th>
<th>Moderately Disagree</th>
<th>Slightly Disagree</th>
<th>Neither Disagree or Agree</th>
<th>Slightly Agree</th>
<th>Moderately Agree</th>
<th>Totally Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
</tbody>
</table>

1. I wish others would more quickly recognize authority of my sorority.
3. I will never be satisfied until my sorority gets all it deserves.
4. I insist upon my sorority getting the respect that is due to it.
5. It really makes me angry when others criticize my sorority.
6. If my sorority had a major say in the world, the world would be a much better place.
7. I do not get upset when people do not notice achievements of my sorority. (reversed)
8. Not many people seem to fully understand the importance of my sorority.
9. The true worth of my sorority is often misunderstood.
Sororities’ intergroup status (Using a modified version of Willer and Soliz’s (2010) modified version of relative likability and influence scales that are based on Lease, Musgrove, and Axelrod’s (2002) conceptualization of social status)

Please report the extent to which you agree with the following statements about your sorority using the 5-point Likert scale (1 = strongly disagree to 5 = strongly agree).

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neither Disagree or Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>4</td>
<td>6</td>
<td>7</td>
</tr>
</tbody>
</table>

*Relative likability:*
1. Members of other sororities are fond of my sorority
2. My sorority is liked by members of other sororities
3. My sorority is more accepted than other sororities.

*Relative influence:*
4. Members of other sororities take my sorority seriously
5. My sorority has a lot of influence over other sororities
6. Members of other sororities are likely to go along with what my sorority says and does more often than they are to go along with what other sororities say and do.
Sorority intragroup status (Using a modified version of Willer and Soliz’s (2010) modified version of relative likability and influence scales that are based on Lease, Musgrove, and Axelrod’s (2002) conceptualization of social status)

Please report the extent to which you agree with the following statements about yourself using the 5-point Likert scale (1 = strongly disagree to 5 = strongly agree).

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neither Disagree or Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>4</td>
<td>6</td>
<td>7</td>
</tr>
</tbody>
</table>

Relative likability:
1. Other members of my sorority are fond of me
2. I am liked by other members of my sorority
3. In the eyes of other members of my sorority, I am more accepted than other members.

Relative influence:
4. Other members of my sorority take me seriously
5. I have a lot of influence over other members of my sorority
6. Members of my sorority are more likely to go along with what I say and do than they are to go along with what other members say and do.
Demographic Information

1. What is your current age? _____

2. What year are you in college?
   _____ First Year
   _____ Sophomore
   _____ Junior
   _____ Senior
   _____ Other _______________________

3. How long have you been a member of your sorority? ______

4. What is your race/ethnicity? Please check one of the following.
   _____ Black/Non-Hispanic  _____ White/Non-Hispanic
   _____ Hispanic            _____ Asian or Pacific Islander
   _____ American Indian     _____ Other _______________________
       or Alaskan Native
Survey on behavioral patterns in college sororities

My name is Bethany Doran and I am a Ph.D. student in the Communication Studies Department at the University of Denver. I am currently working on a study for my dissertation that focuses on behavioral patterns in college sororities. For purposes of this study, I am looking for females who are at least 18 years old and are currently members of college sororities. I ask that you reflect upon your experiences being member of a college sorority as you respond to the items on the survey. Specifically, I want you to think about your behavioral patterns as well as the behavioral patterns of members of your sorority in relation to what take places within your sorority and with other sororities.

Those who are interested in participating in the study will be asked to fill out an online-survey that takes approximately 20 minutes to complete. If you choose to participate, you will be required to provide informed consent and all of your information will be kept confidential. Thus, your name and sorority chapter’s name will not be used in any way. If you have questions, please email me at Bethany.Doran@du.edu. If you are willing to participate, please go to the following link:

If you experience any difficulty accessing the website, please contact me at the above email address.

Thank you for your willingness to participate!

Bethany L. Doran, M.A.
Doctoral Student
Communication Studies
200 Sturm Hall
University of Denver
2000 E. Asbury Ave.
Denver, CO 80208
Phone: 978-930-4119
Email: Bethany.Doran@du.edu
APPENDIX C

Behavioral Patterns in College Sororities

You are invited to participate in a study that will examine behavioral patterns in college sororities. This study is part of dissertation work that is being conducted by doctoral student, Bethany Doran, Communication Studies, University of Denver, Denver, CO, 80208. Results will be used to better understand behavioral patterns in college sororities. If you have any questions or concerns about the study, I can be reached at 978-930-4119 and Bethany.Doran@du.edu. The supervising faculty member for this study is Assistant Professor, Dr. Erin Willer, Communications Department, University of Denver, Denver, CO 80208, who can be reached at, 303-871-4308 and Ewiller@du.edu.

I am currently working on this study as part of my dissertation that focuses on behavioral patterns in college sororities. For purposes of this study, I am looking for females who are at least 18 years old and are currently members of college sororities. I ask that you reflect upon your experiences being member of a college sorority as you respond to the items on the survey. Specifically, I want you to think about your behavioral patterns as well as the behavioral patterns of members of your sorority in relation to what takes place within your sorority and with other sororities.

Participation in the study will involve responding to survey items about specific forms of communication. The survey contains several sections. I ask you to: (1) rate the extent to which you have experienced specific forms of communication in your sorority; (2) rate the extent to which you have experienced specific forms of communication with other sororities; (3) rate the extent to which other members of your sorority have experienced specific forms of communication in your sorority; (4) rate the extent to which other members of your sorority have experienced specific forms of communication with other sororities; (5) respond to items that relate to your personal characteristics and communication habits, and (7) provide demographic information about yourself. Participation in this study should take about 20 minutes of your time.

Participation in the study is strictly voluntary. The risks associated with this project are minimal. If, however, you experience discomfort you may withdraw from the study at any time. I respect your right to choose not to answer any questions that may make you feel uncomfortable. Refusal to participate or withdrawal from participation will involve no penalty or loss of benefits to which you are otherwise entitled.
Your responses to survey items will be identified by code number only and will be kept separate from information that could identify you. This is done to protect the confidentiality of your responses. Results of this project may be presented at professional conventions and included in journal articles. However, you will not be asked to provide your name or your sorority chapter’s name in any way. If you choose to participate in this study in order to be eligible to win a $25.00 VISA gift card, you will be required to provide your name and email address at the end of the survey so that I can contact you if you win. This information will be collected separately from your survey responses.

Please know that my adviser and I will be the only people who have access to your individual data. However, should any information contained in this study be the subject of a court order or lawful subpoena, the University of Denver might not be able to avoid compliance with the order or subpoena. Although no questions in this survey address it, I am required by law to tell you that if information is revealed concerning suicide, homicide, or child abuse and neglect, it is required by law that this be reported to the proper authorities.

If you have any concerns or complaints about this study, please contact Paul Olk, Chair, Institutional Review Board for the Protection of Human Subjects, at 303-871-4531, or email Emily Caldes at Emily.Caldes@du.edu, or call Office of Research and Sponsored Programs at 303-871-4050 or write to either at the University of Denver, Office of Research and Sponsored Programs, 2199 S. University Blvd., Denver, CO 80208-4820. Sample: http://www.du.edu/orsp/forms.html

You may print this page for your records. Please click “yes” below if you understand and agree to the above. If you do not understand any part of the above statement, please contact one of the researchers with any questions you have. By clicking “Yes,” you indicate that you have read the informed consent above, and you willingly agree to participate in this study.

I have read and understood the foregoing descriptions of the study Behavioral Patterns in College Sororities. I have asked for and received a satisfactory explanation of any language that I did not fully understand. I agree to participate in this study, and I understand that I may withdraw my consent at any time. I will print a copy of this consent form.

Yes_____ No______