

**GENDER AND SEXUAL COERCION PERPETRATION LEVEL DIFFERENCES IN
ENDORSEMENTS OF ASPECTS OF LOVE**

by

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This study examined differences in four aspects of romantic love to see if they related to self-reports of committing acts of sexual coercion for female and male college students. Four new scales were developed that measured Control, Game-Playing, Reciprocity, and Emotional Intensity. These aspects of romantic love (AIR Love) were based on two lovestyles, ludus and mania, from Lee's well-established theory about love (1973, 1976). A total of 101 males and 168 females completed the pencil-and-paper survey study that was used to test study predictions. MANCOVAs examined differences in endorsement of AIR Love by gender and sexual coercion perpetration level, controlling for age and relationship length. Three MANCOVAs examined effects of Gender with Enticement, Emotional Manipulation, or Exploitation Coercion Levels. Evidence suggested suitable development of scales for Control, Reciprocity, and Emotional Intensity. Results for main study hypotheses found that, as predicted, males and females differed in their endorsements of Control, Game-Playing, and Emotional Intensity. The perpetration of Emotional Manipulation and Exploitation Coercion were related to the endorsement of AIR Love Control, as predicted. Other predictions were not supported.

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PREFACE

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1.0 INTRODUCTION

“Sexual coercion” has been conceptualized as the use of broad range of behaviors used to force or pressure someone to engage in sexual activity against his or her will (Koss & Oros, 1982; Lottes & Weinberg, 2008; Muehlenhard & Cook, 1988; Struckman-Johnson & Struckman-Johnson, 1998). The early work of the 1980’s (e.g., Koss & Oros, 1982) indicated a high prevalence of sexual coercion, which continues today (Craig, 1990; Koss et al., 1994; Hines, 2007; O’Sullivan & Allgeier, 1998; Poppen & Segal, 1998; Straus & Members of the International Dating Violence Research Consortium, 2004; Struckman-Johnson, Struckman-Johnson, & Anderson, 2003). Given that a large proportion of sexual coercion is perpetrated in dating relationships (e.g., Abbey & McAuslan, 2004, Straus & Members of the International Dating Violence Research Consortium, 2004), a theoretical explanation tying sexual coercion to romantic relationship ideals could explain some of the variance in the perpetration of sexual coercion . This paper first presents a brief review on sexual coercion then a framework and development strategy to examine four new theoretical aspects of idealized romantic love (AIR Love). Then rationales for hypotheses linking the perpetration of sexual coercion to these AIR Love scales are presented. Descriptive data are presented followed by data that test the study hypotheses. These results are then discussed.

1.1 SIGNIFICANCE

1.1.1 Overview of Sexual Coercion

Two factors motivated the focus of this research. First, sexual coercion is a serious issue in the United States (Fisher, Cullen & Turner, 2000; Hines, 2007; Lottes & Weinberg, 2008). Second, college students frequently report perpetrating sexual coercion or being victims of sexual coercion (e.g., Fisher, Cullen & Turner, 2000; Struckman-Johnson, Struckman-Johnson, & Anderson, 2003). Attention in the current study is aimed at college students as perpetrators of sexual coercion.

Definitions of sexual coercion vary within the literature. In this study, a definition was adopted from Struckman-Johnson, Struckman-Johnson, and Anderson (2003) where sexual coercion is the use of pressure, alcohol or drugs by a person to engage in sexual activity (e.g., touching of genitals or intercourse) with someone else *against his or her will*. As will be discussed, with regard to coercion, this basic definition is consistent with those developed by many theorists, but studies of sexual coercion vary greatly in how consent is defined.

1.1.2 Outcomes of Sexual Coercion

Sexual coercion is associated with negative outcomes for both female and male victims. Some victims report physical injury, life disruption (i.e., in relationships with men and family), post-traumatic stress-disorder, problems in romantic and sexual relationships (e.g., sexual dysfunction, lowered relationship satisfaction), feelings of anger and hostility, self-blame, and other negative outcomes (Abbey, BeShears, Clinton-Sherrod, & McAuslan, 2004; Craig, 1990; Frieze, 2005; Katz & Myhr, 2008; O'Sullivan, Byers & Finkelmann, 1998; Struckman-Johnson &

Struckman-Johnson, 1998). Within the broader literature, findings regarding victims' reactions to sexual coercion vary dramatically and are dependent on a number of factors (e.g., Abbey, BeShears, Clinton-Sherrod, & McAuslan, 2004; Kahn & Mathie, 2000; Russell, 1990).

First, the range of reactions to sexual coercion is summarized for female victims. Then, this review looks at male victims. In a recent study of females' reactions to a range of types of sexual coercion and its incidence, females reported a range of reactions. This one study was selected given its attention to a range of coercion types, as will be used in this study. Over half of a randomly drawn community sample of 272 women in the Detroit metropolitan area reported a lifetime incidence of being pressured or forced into some kind of sexual activity (i.e. kissing, sexual touching, and intercourse) (Abbey, BeShears, Clinton-Sherrod, & McAuslan, 2004). On average, victims were 31 years old at data collection and 22 years old at the time of the incident, a similar age to the college students in this study. Over half of the responding sample (i.e. the response rate was 82%) was African-American; this high proportion of African Americans was obtained by oversampling telephone exchanges with higher proportions of African Americans. The sample was also limited in several other respects (i.e. Ps were 18 to 49 years of age, had at least 10 year United States residency, were single, and had dated someone of the opposite sex during the prior year).

In addition to lifetime incidence of victimization, the urban Detroit sample also reported individual coercive tactics used against them, the resulting sexual activity that followed the coercion, and the severity and consequences of coercive incidents (Abbey, BeShears, Clinton-Sherrod, & McAuslan, 2004). On average, these women retrospectively reported that they felt the coercive incidents were somewhat serious (i.e. they were rated above the midpoint of a 7-point Likert style scale ranging from 1= *not very serious* to 7= *very serious*). However, their

perceptions of severity varied by type of coercion; verbal coercion was perceived as less serious ($M = 4.01$) than coercion through intoxication ($M = 5.27$), which were both perceived less seriously than coercion via physical force ($M = 6.14$). Most of these women's perceptions of severity were near or above the midpoint on the severity scale even years after the coercive incident. These findings support the idea, that at least for some victims, sexual coercion can have lasting and severe effects.

Some research suggests that perceptions of severity may vary by the perpetrator-victim relationship. Ostensibly, within the context of an established relationship, perceptions of severity are less. A more recent study found that about a fifth of 193 college females' reported that their relationship partners used verbal sexual coercion against them (e.g., repeatedly asking for sex or partner use of authority) (Katz & Myhr, 2008). This use of verbal coercion was related to negative outcomes, even in the context of romantic relationships. These included relationship problems (e.g., feeling psychologically abused by her partner or, engagement in destructive verbal conflict patterns with her partner). This suggests that even the use of less extreme forms of sexual coercion can lead to negative outcomes for some victims.

Males can also be adversely affected by sexual coercion (e.g., Sarrel & Masters, 1982). For example, a widely-cited study reports the negative impact of women's sexual coercion against college males ($N = 318$) (Struckman-Johnson, Struckman-Johnson, 1998). Over 40% of the males in this sample reported being pressured or forced into sexual touching or intercourse by females (Struckman-Johnson, Struckman-Johnson, 1998). Of these, nearly 30% reported that the incident had some negative impact, 23% reported they were moderately upset by the coercion, and 14% reported a severe negative impact from the coercive experience. However, a

third of the males reported no negative impact from the sexual coercion. Thus, males also experience a range of reactions to sexual coercion.

A data-driven theoretical model illustrates why males' reactions to sexual coercion may differ from females' reactions. The Sexual Opportunity Model proposed that "because young men value and enjoy sex, they are predisposed to view a woman's aggressive advance as a positive sexual opportunity, not a violation of will" (Struckman-Johnson & Struckman-Johnson, 1998, p. 138). In this model, males' reactions to female sexual aggression are mediated by four factors. First, the degree to which the incident violates the male victim's personal sexual standards influences his reaction. Second, another influence on reactions is the level of force used by the female perpetrator. Third, the extent to which the female is attractive or able to sexually arouse the male will affect his reaction. Finally, the extent to which his involvement in a romantic relationship with the perpetrator justifies the incident will influence his reaction to the coercion. Taking these factors into account, there is evidence to suggest that reactions to sexual coercion vary along a number of dimensions, including the level of force or type of tactic used by the perpetrator.

Few studies compare male and female victims' reactions to sexual coercion. It is also difficult to draw conclusions across studies given the use of varied and shifting definitions for sexual coercion and sexual activity. One of the few studies that compares males' and females' reactions to sexual coercion by their romantic partners found that both genders often report some negative reactions to such coercion (O'Sullivan, Byers, & Finkelmann, 1998). After their romantic partners pressured or forced them to engage in unwanted sexual activity, about a fifth of males and females reported either decreased involvement with their work or lowered social involvement. Approximately a third of women and a fifth of men reported that the experience

impaired their academic ability. Thus, both males and females, even within romantic relationships, report some negative outcomes associated with victimization. But females ($n = 277$) more frequently reported adverse reactions to being victimized by their partners and reported higher rates of victimizations than did males ($n = 156$).

The findings above show that both males' and females' reactions to sexual coercion vary along several dimensions. First, reactions vary based upon the tactic, or the level of force, used by the perpetrator. Use of forceful tactics and intoxication to coerce targets into sexual activity were associated with more negative outcomes for male or female victims than when other tactics are used (O'Sullivan et al., 1998). Given this, studies examining sexual coercion would benefit from examining tactics by category rather than combining across all types of sexual coercion.

Though it is difficult to draw conclusions across studies, urban samples (e.g., Abbey, BeShears, Clinton-Sherrod, & McAuslan, 2004) may report different sexual coercion patterns than non-urban samples. It is possible that urban samples may experience a different set of tactics or experience sexual coercion more frequently than their countryside/suburban counterparts. For this reason, urban experience was considered as a possible control factor in this study.

Those in and out of relationships might also report differences in the experience of sexual coercion. Reactions to coercion committed by romantic partners tend to be less negative than coercion committed by acquaintances or strangers for males (e.g., Struckman-Johnson & Struckman-Johnson, 1998) and females (e.g., Abbey, BeShears, Clinton-Sherrod, & McAuslan, 2004). In addition to affecting reactions to sexual coercion, being in a relationship may affect participants' opportunity to sexually coerce others. Thus, relationship variables, such as relationship length and status, were considered as possible control variables in this study.

1.1.3 Incidence of Sexual Coercion

Given the varying definitions for sexual coercion, drawing firm conclusions regarding the overall rate of sexual coercion across studies is difficult. Some authors include both pressured and forced sexual contact (e.g., Struckman-Johnson, Struckman-Johnson, & Anderson, 2003) while others examine “unwanted” sexual activity (e.g., Muehlenhard & Cook, 1988). Studies of pressured and forced sexual contact and unwanted sexual activity may not be comparable (O’Sullivan & Allgeier, 1998). In the following section, definitions for sexual coercion are provided as they were operationalized for each study.

In one of the first major studies conducted, Koss, Gidycz and Wisniewski (1987) found that the sexual victimization of college females ($n = 2016$) and perpetration by college males ($n = 1846$) were high. As is common in the earlier literature, males were not asked about their victimization experiences. Over half of the women in the sample reported some kind of sexual victimization. *Sexual coercion* was defined as sexual activity following a male perpetrator’s use of pressure or forceful behaviors including: menacing verbal pressure, misuse of authority, threats of harm, or actual physical force when the victim did not want to have sex. Data revealed that 64% of college females had reported being sexually victimized since the age 14 and 24% of college males reported perpetrating acts of sexual coercion against a target since age 14, using a broad definition of “sexual” which included kissing and touching of breasts. The current study used a narrower definition for sexual by excluding these behaviors.

In another influential study, Fisher, Cullen and Turner (2000) asked a random sample of female college students ($n = 4,432$) about experiences of sexual victimization since college began. Approximately 16% of their sample reported being sexually victimized in some way during the current academic year. Females were asked to report all such incidents that occurred

beginning from the beginning of that academic year to the time of data collection, a period that spanned 7 months, on average. Fisher, Cullen, and Turner used the same broad definition for “sexual” as Koss, Gidycz, and Wisniewski (1987) by including kissing and touching of breasts. However, coercion was grouped according to the types of tactics used, physical tactics (e.g., striking the target) and nonphysical methods (e.g., using lies). Rates of nonphysical victimization were higher than were rates of physical victimization, 11% and 8%, respectively. However, these rates were higher than would be expected in the current study, due to my adoption of a more exclusive definition for sexual activity. However, rates in Fisher, Cullen and Turner (2000) span a period of 1 year.

More recent studies show similar rates of victimization in college samples (Hines, 2007; Struckman-Johnson, Struckman-Johnson, & Anderson, 2003; Lottes & Weinberg, 2008). The following statistics are similar to the expected incidence of sexual coercion in this study, as the adopted definitions for sexual and coercion are similar. Both the current study and the described study below use age 16 as the reference point when asking participants about their past experiences with sexual coercion.

The reference points from which reports of coercion are made influence the estimates of coercion. Lifetime incidence rates often adopt a reference point. A study conducted the same year with similar sample may report different incidences of sexual coercion due to different reference points of participants’ estimates. The adoption of a reference point also means that reports of coercion are sensitive to age effects. For example, a 21 year-old reporting from age 16 will have had more opportunity to experience coercion than a 19-year old reporting from age 16. In the former case, the 21-yr-olds estimates span 5 years of opportunity for coercion while the

19-yr-old had only 3 years to experience coercion. Thus, studies should control for age effects and reference points.

In addition to variation from use of different reference points, rates of victimization vary by gender and type of tactic used by the perpetrator (Struckman-Johnson, Struckman-Johnson, & Anderson, 2003). Across all types of coercion, more females than males report victimization. One study showed that since age 16, 30% of females and 25% of males reported being physically forced- into sexual contact (i.e. touching of genitals or breasts). Force includes less serious forms of “force”, such as physically blocking the target’s retreat (e.g., locking the door) as well as more traditional, serious forms of force, such as pinning the target down (Struckman-Johnson, Struckman-Johnson, & Anderson, 2003). The use of alcohol or drugs to coerce targets was more common than the use of force, where a third of males and 44% of females reported they were purposefully intoxicated or taken advantage of while intoxicated. Even higher were rates of verbal and emotional coercion, and highest were rates of coercion through continued attempts to induce physical arousal. In general, victims reported physical (forceful) victimization less frequently than other types of coercion. As would be expected, college students also reported forceful coercion perpetration least; they reported such low rates that statistical analyses were limited. Therefore, forceful tactics of sexual coercion are not examined in the current study given the low reported levels by college students.

As discussed above, rates of victimization, and, thus, perpetration, vary significantly by the type(s) of coercion assessed and the definition of sexual coercion used. When definitions for sexual activity were limited to sexual intercourse, rates of victimization are lower (e.g., Fisher, Cullen, & Turner, 2000). When tactics such as emotional manipulation and verbal pressure were assessed (e.g., using the “silent treatment”, repeatedly asking for sex when the victim did not

consent) rates of victimization increased (e.g., Struckman-Johnson, Struckman-Johnson, & Anderson, 2003, Zurbriggen, 2000). Rates of victimization were also sensitive to the reference point, indicating a need to control for age effects in analyses. The incidence of victimization was also sensitive to the relationship between the perpetrator and victim, as were perceptions of severity.

1.1.4 The perpetrator-victim relationship

In college samples, sexual coercion is committed most frequently against relationship partners and dating partners, less against acquaintances, and least against strangers (Abbey & McAuslan, 2004; Krahe et al., 2003; Struckman-Johnson & Struckman-Johnson, 1994). For example, of 197 college males, over a third coerced or forced a female into sexual activity (i.e. touching of the genitals and intercourse – the same definition used in the current study) since the age of 14 (Abbey & McAuslan, 2004). These acts were committed against casual dating partners in the majority (57%) of cases. In another 33% of cases, males coerced or forced females they were steadily dating. Similarly, when males were sexually victimized, it was far more often by romantic partners than acquaintances or strangers (e.g., Krahe et al., 2003; O’Sullivan & Byers, 1998; Struckman-Johnson, Struckman-Johnson, 1994; Struckman-Johnson, Struckman-Johnson & Anderson, 2003). In this study, relationship length will serve as a proxy for distinguishing between casual and serious relationships. Thus, analyses should consider relationship length as a possible control when examining relationships between ideals and perpetration of sexual coercion.

Not only do rates of sexual coercion vary by type of relationship, but recent evidence suggests that the tactics used to coerce might differ by relationship type. Using a sample of

married participants only, a recent scale of tactics was developed to measure sexual coercion, including tactics like resource manipulation (e.g., withholding money) and power manipulation (Shackelford & Goetz, 2004). However, such tactics would not be appropriate to measure in an unmarried college sample. Using a never married college sample, a list of 19 tactics were developed by Struckman-Johnson, Struckman-Johnson, and Anderson (2003) including tactics such as the use of alcohol or drugs to coerce targets into sexual activity. This list forms the basis for the categories of tactics examined in this study. This study will limit its focus to the perpetration of sexual coercion by single and dating participants. Those who are in committed relationships (e.g., engaged, married, and cohabiting) have access to different sexual coercion tactics, providing them with different opportunities to coerce.

1.2 TACTICS OF SEXUAL COERCION

Tactics-based investigations focus attention on specific behaviors that perpetrators report using and that victims report experiencing (e.g., Struckman-Johnson, Struckman-Johnson, & Anderson, 2003). These types of investigations allow researchers to provide clearer estimates of each specific behavior used to coerce. Furthermore, specific tactics are sometimes combined into groups. For example, tactics such as lying and making false promises to victims in order to get them to have sex can be combined into a category of verbal and emotional coercion (e.g., Struckman-Johnson, Struckman-Johnson, & Anderson, 2003; Koss et al., 2007). This grouping of tactics may aid in differentiating among the mechanisms that underlie types of sexual coercion.

As discussed, definitions of sexual coercion vary across studies as do definitions of the term “sexual”. The operational definition of sexual coercion for this study is outlined below and then categories of sexually coercive tactics to be examined in this investigation are explained.

The Struckman-Johnson, Struckman-Johnson, and Anderson research teams have developed a large body of literature on tactics of sexual coercion (e.g., Anderson, Spruille, Venable, & Strano, 2005; Anderson & Struckman-Johnson, 1998; Struckman-Johnson & Struckman-Johnson, 1998; Struckman-Johnson & Struckman-Johnson, 2001). These researchers have studied sexual coercion perpetrated by both male and female college students. Given the similarity of population between the current study and their body of work, this study adopts the following definition from one of their more recent tactics-based investigation into sexual coercion (Struckman-Johnson, Struckman-Johnson, & Anderson, 2003).

Sexually coercive behavior [is]...the act of using pressure, alcohol or drugs, or force to have sexual contact with someone against his or her will [italics added]. (p. 76)

Sexual contact includes “*genital touching, oral sex or intercourse [italics added]*” (p. 79).

Nearly all researchers agree that sexual coercion involves acting against the will, or consent, of a target. However, definitions of consent or willingness vary. For example, Struckman-Johnson and colleagues (2003) examine specific tactics that occurred *after* a target indicated “no” to a sexual advance. Koss and colleagues (2007) argued that the appropriate operational definition would be “against his or her *consent*.”

However, asking perpetrators if they specifically acted *against the consent* of the victim is leading and likely to solicit a low response rate from perpetrators. Many perpetrators may feel they were acting in line with their target’s *consent* even if they initially indicated “no” to a sexual advance. Or if they do feel their target did not provide consent, they may be likely to respond

“no” to such items to avoid self-incrimination. Thus, the current study adopts a methodology used in other research to query perpetrators without asking directly about consent of the target.

This research assesses a range of coercion tactics that occur after the target says “no” and when a target’s non-consent is implicit. Some tactics used in this study (e.g., purposeful intoxication) are coercive because they reduce the target’s capacity to provide willful consent (e.g., Zurbriggen, 2000). This is consistent with the thinking by Humphreys and Herold (2007) that sexual activity can only be considered consensual when consent is informed and offered freely.

This investigation adopts an operational definition for consent modeled on a recent revision of the Aggressive Sexual Behavior Inventory (ASBI: Mosher & Anderson, 1986). In a 10-item scale, all items loaded to one factor of sexual coercion (Zurbriggen, 2000, see Table 1). This coercive sexual behavior scale measures forceful, coercive, and manipulative actions.

Each act in the scale is described using a full sentence with a clause that describes the non-consent of the target. Example indicators of non-consent adapted for use in this study are [I have committed specific act]... “*when they would not surrender to my need for sex (italics added)*” and “*so they would be less able to resist my sexual advances (italics added)*” (Zurbriggen, 2000, p. 565, see Table 1). Not only does this wording provide clearer indications of non-consent, when used to assess perpetration, it also appears to provide higher self-reports rates. Studies using similar phrasings with full sentences (e.g., Staratt, Goetz, Shackelford, McKibbin, & Stewart-Williams, 2008) report higher perpetration rates than do studies that assess behaviors using a single stem indicating the act was committed against the target’s consent, will, etc. (e.g., Struckman-Johnson, Struckman-Johnson, & Anderson, 2003).

Table 1. Coercive Sexual Behavior Scale, adapted from the ASBI by Zurbriggen (2000)

<p>The following items describe behavior that sometimes occurs in dating interactions. Some of the behaviors are acceptable to some people and others are not. Please use the scale to the right of the items to rate how frequently you have engaged in these behaviors in the past.</p>	
1. I have gotten a little drunk and forced the person that I'm with to have sex with me.	
2. I have called someone an angry name and pushed them away when they would not surrender to my need for sex.	
3. I have given someone the "silent treatment" when they wouldn't have sex with me.	
4. I have gripped someone tightly and given them an angry look when they were not giving me the sexual response I wanted.	
5. I have belittled someone's manhood or womanhood in order to get them to sleep with me.	
6. I have threatened to leave or end a relationship if my partner wouldn't have sex with me.	
7. I have told someone I was making out with that they couldn't stop and leave me frustrated.	
8. I have told someone their refusal to have with me was changing the way I felt about them.	
9. I have gotten someone drunk or high so they would be less able to resist my sexual advances.	
10. I have dated someone younger than me because I thought it would be easier to get them to give me what I wanted sexually.	

Note. Items are measured using a 7-point Likert scale was used, where 1 = Never, 3 = Occasionally, 5 = Fairly Often, and 7 = Extremely Frequently.

1.3 CATEGORIES OF SEXUAL COERCION TACTICS

Instead of broadly asking victims if they've ever been sexually coerced or victimized, some researchers examine specific acts of pressure and force that perpetrators used to coerce targets into sexual activity (e.g., Anderson & Aymami, 1993; SES: Koss & Oros, 1982; Koss et al., 2007; O'Sullivan & Byers, 1993). For example, two frequently studied tactics involve the use of verbal pressure through continual requests and purposefully intoxicating a target (e.g., Abbey, BeShears, Clinton-Sherrod, & McAuslan, 2004; Koss et al., 2007; Struckman-Johnson, Struckman-Johnson & Anderson, 2003). As outlined earlier, studies examining sexual coercion

would benefit from a tactics-based approach; thus, this approach will be adopted for the current study.

Several researchers use a tactics-based approach and have created scales of sexual coercion tactics. Koss and colleagues (2007) have recently revised the Sexual Experiences Survey, which includes many tactics; however many tactics are grouped into one single item. For example, an item on the newest version of the SES asks if “someone had oral sex with you or made you have oral sex with them without your consent by telling lies, threatening to end the relationship, threatening to spread rumors about you, making promises you knew were untrue, or continually verbally pressuring you after you said you didn’t want to” (Koss et al., 2007, p. 368). Affirmative responses to these types of items are difficult to interpret because conceptually different types of sexual coercion are being assessed within single items. Other lists include many tactics that are not organized into meaningful groups of coercive tactics (e.g., Anderson & Aymami, 1993, Zurbriggen, 2000). In an improved approach, researchers empirically derived a list of tactics that each belong conceptually to a different type of coercion (Struckman-Johnson, Struckman-Johnson & Anderson, 2003). Individually measuring specific tactics that belong to distinct categories and combining them into a category tactic score improves the measurement of sexual coercion and will be adopted for the current study.

Using this approach, Struckman-Johnson, Struckman-Johnson and Anderson (2003) developed a list of 19 sexual coercion tactics from the existing literature. They placed each of these specific tactics into one of four distinct categories: physical arousal of the target, verbal and emotional coercion, intoxication, and physical force. These tactics were reported frequently by college perpetrators and victims in other studies (Anderson, 1998; Anderson & Aymami, 1993; Hines, 2007; Struckman-Johnson, Struckman-Johnson, 1994; Koss & Oros, 1985; Zurbriggen,

2000). This model for the treatment of tactics of sexual coercion will be adopted and further developed in the current study. Please note that the category of force is not included in this study due to its low reported incidence of perpetration by college students.

Modeling the treatment of tactics by Struckman-Johnson, Struckman-Johnson, and Anderson (2003), tactics in the current study will be placed into 3 basic categories. Sometimes there were only a few specific tactics listed in each category in the earlier research. In this study, I assigned six tactics to each group, so new items were added as needed. To find additional tactics, two recent scales, the most recent version of the SES (Koss et al., 2007) and an adapted version of the Aggressive Sexual Behavior Inventory (Zurbriggen, 2000) were selected for review. These surveys were selected because their developers cited gender as an important factor in developing their items. Attention was given to selecting items that would be viewed as likely tactics to be committed by males and females. It was also an aim to find tactics that would not be reported extremely frequently (to avoid ceiling effects), and that were not reported too infrequently (to avoid floor effects).

The reported frequency of perpetrator reports and victim reports of experiencing such tactics are drawn from Struckman-Johnson, Struckman-Johnson and Anderson (2003) and other studies. Table 2 provides a summary of the prevalence of perpetrator and victim reports of sexual coercion by gender and by the categories used in this study. Percentages in this table were drawn from studies using tactics-based approaches to studying sexual coercion with similar types of tactics and definitions for sexual coercion. Note that rates are included for force tactics to illustrate their low self-reported use by college perpetrators.

Table 2. Self-Reported Prevalence of Sexual Coercion by Perpetrator or Victim Status, Gender, and Study

The offender....after target's indication of non-consent		Person reporting by Study						
		Perpetrators					Victims	
		SSA ^a	Z ^b	SSA ^a	AS ^c	Z ^b	SSA ^a	
		Males		Females			Males	Females
		n = 275	n = 79	n = 381	N = 163	n = 79	n = 275	n = 381
Enticement	Used any one or more enticement tactic	40%	--	26%	6%	--	54%	73%
	Persistently kissed and touched the target	39%	--	23%	--	--	51%	71%
	Took off own clothes	22%	--	18%	--	--	41%	37%
	Took off target's clothes	28%	--	15%	--	--	38%	50%
Emotional Manipulation	Used any one or more emotional	32%	--	15%	--	--	44%	71%
	Repeatedly asked target	29%	--	14%	--	--	37%	66%
	Used continual verbal arguments	--	38%	--	7%	41%	--	--
	Told the target lies	16%	--	3%	--	--	22%	42%
	Criticized target's sexuality	3%	4%	2%	4%	6%	8%	9%
	Threatened to leave/end relationship	3%	23%	0%	1%	15%	4%	10%
	Said things they didn't mean to target	--	--	--	11%	--	--	--
	Used "silent treatment" against target	--	41%	--	--	17%	--	--
	Said the target's refusal changed feelings	--	25%	--	--	11%	--	--

		Person reporting by Study						
		Perpetrators					Victims	
		SSA ^a	Z ^b	SSA ^a	AS ^c	Z ^b	SSA ^a	
		Males		Females			Males	Females
The offender....after target's indication of non-consent		n = 275	n = 79	n = 381	N = 163	n = 79	n = 275	n = 381
Alcohol /Exploit	Used any one or more <i>alcohol</i> tactic	13%	--	5%	--	--	31%	44%
	Purposefully chose younger target	--	27%	--	--	9%	--	--
	Took advantage of a drunken/stoned target	13%	--	5%	32%	--	30%	42%
	Purposefully got the target drunk	6%	32%	1%	5%	18%	11%	25%
Physical Force	Used any one or more physical force	5%	--	3%	--	--	25%	30%
	Blocked the target's retreat	3%	--	1%	--	--	20%	21%
	Used physical restraint against target	4%	--	2%	--	--	9%	22%
	Used physical force while the <i>perpetrator</i>	--	11%	--	--	7%	--	--
	Used physical harm against the target	1%	--	1%	1%	--	6%	9%
	Threatened physical harm to the target or	1%	--	1%	--	--	1%	6%
	Tied the target up	1%	--	1%	--	--	4%	1%

Note. Definitions for sexual and coercion are not equitable across tactics: ^aStruckman-Johnson et al (2003) measured tactics used post target refusal to engage in genital touching or intercourse, ^bZurbriggen (2000) measured behaviors against a target's consent to engage in sex, the matter of consent was worded differently across items, ^cAnderson and Sorenson (1999) measured tactics used to engage in fondling, kissing, petting, and intercourse, with the matter of consent addressed in each item.

1.3.1 Enticement Coercion

This category of tactics is given special attention in this study because it may help in explaining sexual perpetration, especially for those who believe that acquiescence to sexual activity based upon sexual arousal is equivalent to freely offered consent. As the most normative of categories of coercive tactics (see Table 2), these behaviors may be used most frequently and appear to reflect common coercive acts by male and female perpetrators (Struckman-Johnson, Struckman-Johnson, & Anderson, 2003). These behaviors involve nonverbal, physical tactics used by the perpetrator to tempt one's target into sexual contact when the target does not consent, such as removing the target's clothes after he or she indicated a refusal to a sexual advance. These tactics exclude the use of physical force or exploitation. Perpetrators frequently reported the use of kissing and touching after the target refused and the removal of clothing after the target refused (see Table 2). Such behaviors are labeled as enticement.

According to Struckman-Johnson, Struckman-Johnson and Anderson (2003), the use of these tactics is intended to change a partner's mind about engaging in sexual contact. Three of the tactics in this category are built from tactics listed by Struckman-Johnson, Struckman-Johnson, and Anderson (2003). An additional three tactics were created for the purposes of this study (see Table 3). These include the perpetrator continuing to try to physically "turn the partner on", doing a strip tease to arouse the partner, and touching him or herself in efforts to arouse the target when the target did not want to have sex. Like the three tactics outlined by Struckman-Johnson, Struckman-Johnson, and Anderson (2003), these tactics also involve physical arousal tactics to attempt to entice the target when he/she does not want to have sex, which may be viewed as applying pressure to an unwilling target.

1.3.2 Emotional Manipulation Coercion

Emotional manipulation tactics are included in this study because they are studied frequently in the literature (e.g., Anderson, 1998; Koss & Oros, 1982, Struckman-Johnson & Struckman-Johnson and Anderson, 1994; 1998). Perpetrators with particular ideas about love may prefer these types of tactics and use them instead of other types of coercion. Emotional Manipulation tactics may occur frequently given their explicit lack of force. However, this type of coercion can still be an effective strategy to manipulate others into sexual activity.

This category includes perpetrator use of verbal pressure or emotional manipulation to wear down a target's resistance to his or her sexual advances (Struckman-Johnson, Struckman-Johnson, & Anderson, 2003). Since it difficult to separate many verbal tactics and emotional manipulation tactics, they are commonly combined into one category (e.g., Koss et al., 2007; Struckman-Johnson, Struckman-Johnson, & Anderson, 2003). The current study will follow this trend and label all such tactics "emotional manipulation" (EM) for the ease of discussion. For example, a perpetrator may falsely profess love for a target in order to get the target to have sex. Such a lie is a verbal tactic, but is also emotionally manipulative because it may be emotionally-laden for the target.

Table 2 illustrates that perpetrators frequently coerce their targets verbally; tactics include repeatedly asking the target, lying to the target, and continually making arguments to convince the target to engage in sexual activity. Repeated requests and continual arguments both exercise pressure on the target, which might make him or her feel obligated to engage in sexual activity; lying may be a verbal route to emotional manipulation. Emotional manipulation tactics occur frequently as well; sample tactics are include giving the target the "silent treatment" or telling the target that his or her refusal is changing the way the perpetrator feels about the target.

1.3.3 Exploitation Coercion.

Exploitation tactics are included in this study because perpetrators using exploitive tactics to gain access to sexual activity with targets may be substantively different from those who use other types of tactics, such as emotional manipulation or enticement. Struckman-Johnson, Struckman-Johnson and Anderson (2003) argue that intoxication tactics are more severe acts of perpetration than either emotional manipulation or enticement. Further, in many states, the use of intoxication tactics meets the legal criteria for rape, while many tactics of emotional manipulation and enticement do not (Koss et al., 2007). Exploitation tactics exclude the use of tactics that include the use physical force or the threat of physical force.

Tactics aimed at reducing the target's ability to exercise free will in the decision to engage in sexual contact are labeled "exploitive". These include purposeful intoxication of targets using alcohol or drugs and the exercise of authority (e.g., power or age) over a target to reduce his or ability to (freely) provide consent. Selecting younger targets may be an avenue to reducing ability to provide consent in that these targets would not have the required knowledge to detect coercive strategies enacted by the perpetrator, ostensibly due to either inexperience or naivety. Dating younger targets is frequently measured (e.g., Zurbriggen, 2000) and reported, as seen in Table 2. Other common exploitive tactics include the use of alcohol taking advantage of an already intoxicated target and purposefully intoxicating a target (Struckman-Johnson, Struckman-Johnson & Anderson, 2003; Zurbriggen, 2000).

Table 3. Sexual Coercion Tactics, Original Items, and Sources for Sexual Coercion Tactics

Item	Tactic	Original Item (Source)
Enticement (C)	C1 I continued to kiss and touch someone's body (not his or her genitals) when he/she acted like he/she didn't want to have sex with me.	Continued to kiss and touch you to arouse you (Struckman-Johnson et al., 2003) ^a
	C2 I removed my own clothes in order to change his/her mind about having sex	Removed his [her] clothing to arouse you (Struckman-Johnson et al., 2003)
	C3 I removed my partner's clothes after he/she indicated that he/she didn't want to sleep with me	Removed some of your clothing to arouse you (Struckman-Johnson et al., 2003)
	C4 I continued to attempt to physically "turn my partner on" after he/she said "no" to my advance.	-New Item-
	C5 I did a strip tease in order to arouse him/her to change his/her mind about having sex	-New Item-
	C6 I touched myself sexually in front of my partner in order to tempt him or her when he/she had acted like he/she didn't want to have sex with me	-New Item-
Emotional Manipulation (M)	M1 I tried to talk someone into having sex with me by repeatedly asking or offering logical arguments	Tried to talk you into it by repeatedly asking (Struckman-Johnson et al., 2003)
		Telling lies, threatening to end the relationship, threatening to spread rumors about them, making promises about the future I knew were untrue, or continually verbally pressuring them after they said they didn't want to (Koss et al., 2006) ^b
	M2 I have told a lie of some kind (e.g., how much I liked or loved him/her, promised a longer relationship) in order to have sex with him/her	Told you a lie of some kind (e.g., how much he/she liked or love you (Struckman-Johnson et al., 2003)
		Telling lies, threatening to end the relationship, threatening to spread rumors about them, making promises about the future I knew were untrue, or continually verbally pressuring them after they said they didn't want to. (Koss et al., 2006)
	M3 I threatened to leave or end the relationship when someone wouldn't have sex with me	Threatened to break up with you (Struckman-Johnson et al., 2003) Telling lies, threatening to end the relationship, threatening to spread rumors about them, making promises about the future I knew were untrue, or continually verbally pressuring them after they said they didn't want to. (Koss et al., 2006)
	M4 I criticized or questioned someone's sexuality (e.g., said he or she was gay or couldn't perform) or attractiveness in hopes he/she would have sex with me	Questioned your sexuality (e.g, he/she said you were impotent or gay) (Struckman-Johnson et al., 2003) Showing displeasure, criticizing their sexuality or attractiveness, getting angry but not using physical force after they said they didn't want to. (Koss et al., 2006)

	Item	Tactic	Original Item (Source)
Emotional Manipulation (M)	M5	I told someone their refusal to have sex changed the way I felt about him/her	I have told some that their refusal to have sex with me was changing the way I felt about them (Zurbriggen, 2000)
	M6	I gave someone the “silent” treatment when he/she wouldn’t have sex with me	I have given someone the “silent treatment” when they wouldn’t have sex with me (Zurbriggen, 2000)
Exploitation (X)	X1	I took advantage of someone who had already been drinking because he/she wouldn’t put up as much resistance	Taking advantage when they were too drunk or out of it to stop what was happening. (Koss et al., 2006) Took advantage of the fact that you were already drunk or high (Struckman-Johnson et al., 2003)
	X2	I got someone drunk in order to reduce his or her ability to resist my sexual advances	I have gotten someone drunk or high so they would be less able to resist my advances (Zurbriggen, 2000) Purposefully gave you drugs or alcohol (Struckman-Johnson et al., 2003)
	X3	I dated someone younger because I thought it would be easier to get him/her to do what I wanted sexually	I have dated someone younger than me because I thought it would be easier to get them to give me what I wanted sexually (Zurbriggen, 2000) Was at least 5 years older than you (Struckman-Johnson et al., 2003)
	X4	I used my power or authority over someone to make him/her have sex with me	Used his [her] authority or position (e.g., boss, babysitter, teacher) (Struckman-Johnson et al., 2003)
	X5	I encouraged someone to use drugs (like pot or prescription drugs) until he/she became too out of it to consent or stop what was happening	I encouraged and pressured someone to use drugs such as pot, or Valium until they became too incapacitated (<i>out of it</i>) to consent or stop what was happening (Koss et al., 2004)
	X6	I initiated sexual activity with someone who was asleep or unconscious or <i>out of it</i> and could not stop what was happening	I found someone who was asleep or unconscious from alcohol and when they came to (regained consciousness), they could not stop what was happening (Koss et al., 2004)

Note. Struckman-Johnson and colleagues’ (2003) instructions read: “Since the age of 16 how many times has a male [female] used any of the tactics below to have sexual contact (genital touching, oral sex, or intercourse) with you after you have indicated ‘no’ to his [her] sexual advance?”^b Koss and colleagues’ (2006) stems vary by type of sexual activity. An example stem for these tactics is: “I fondled, kissed, or rubbed up against the private areas of someone’s body (lips, breast/chest, crotch or butt) or removed some of their clothes without their consent (but did not attempt sexual penetration) by...”

1.3.4 Levels of Coercion

Within each of these conceptually distinct categories of coercion, individuals can perpetrate at varying levels. Those using all 6 tactics of emotional manipulation, for example, would be considered higher level coercers than those using two tactics. Those using zero tactics, then would be non-coercers. As such, individuals in this study will receive a score in each category of coercion reflecting their level of coercion.

To explore how perpetration within each category of coercion may affect idealized thoughts about romantic relationships, the next section discusses the development of the four aspects of romantic love explored in the present study. This section opens with a brief review of the parent framework from which the Aspects of Idealized Romantic Love (AIR Love) was developed.

1.4 FRAMEWORK: LEE'S COLOURS OF LOVE THEORY

Love is a phenomenon of all human societies that plays an important role in our interactions with others (e.g., Hendrick & Hendrick, 1986; Sternberg, 1986). Social psychologists and other theorists explored the concept of love extensively during the 1970s and 1980s (Berscheid & Walster, 1974; Rubin, 1973; Hatfield & Sprecher, 1986; Hendrick & Hendrick, 1986; Sternberg, 1986). There are many types of love, such as puppy love, the love for one's country, and the love of one's kin (Lee, 1977). This study is concerned with romantic love, also called intimate adult affiliation and mating love by Lee (1973, 1977). This type of love exists between two people and involves attachment, lust, and attraction (Hendrick & Hendrick, 2004).

Lee's theory about love was selected for its various strengths. As outlined below, each love style within Lee's theory reflects a particular orientation toward romantic relationships that can be related to coercive sexual behavior. The strengths of Lee's love theory of love lie in its richness and its utility in explaining ideal approaches to romantic encounters. Four dimensions built from Lee's ideal love styles serve as the focus for the current study.

Lee (1973, 1977, 1988) described six ideal types of romantic love: storge, eros, ludus, mania, agape, and pragma, based on an extensive analysis of descriptions of love within classic fiction and non-fiction literatures. Lee (1973) developed lengthy and detailed descriptions of the love styles and described them according to 20 aspects (e.g. physical symptoms, sexual attraction, compulsivity, the need for reciprocity). Within each love style, these aspects exist in varying levels (e.g., one style features high jealousy and low sexual rapport). This study is only concerned with specific aspects of ludic and manic love styles for their possible ties with sexually coercive behavior and their potential ability to explain the perpetration of sexual coercion by males *and females* and does not consider other love styles.

According to Lee (1973), each of the love styles could reflect a current, former, or ideal approach to love. In any relationship one's dominant love style could shift; that is one might now be higher on ludus and lower on the other five love styles when he or she was once highest on agape. I argue, consistent with Lee (1973), however, that we tend to have a favorite or ideal style of love, that is, a style we prefer. I argue that those not seriously involved with any romantic partner are likely to hold a more accurate conception of their own ideals for romantic situations; that is, their ideals would be *less* likely to shift to be consistent with the attributes of their current romantic partner. Those in longer-term relationships may be likely to report ideals that match their existing interactions with that partner; therefore, attempts were made to exclude committed

partners from the current investigation. However, current relationship length was used to control for effects of the current partner's influence on changes in love styles. If love styles do change throughout the lifespan in a predictable trajectory, research tying love styles and sexual coercion may be sensitive to age effects. Thus, both age and relationship length were examined as possible control variables in the present investigation.

1.4.1 Measuring Lee's Love Styles

Survey methodology is the most common approach to measuring Lee's love styles. While there are other scales (e.g., Lee, 1974; Lasswell & Lasswell, 1976; Grote & Frieze, 1994; Lasswell & Lasswell, 1976; Lasswell & Lobenz, 1980), each of the six love styles outlined by Lee is most often measured using the Love Attitudes Scale developed by the Hendricks (LAS: 1986). Presented in Table 4 are the 7-item scales of the LAS for ludus and mania. These scales have been found to be reliable and have demonstrated construct validity with many measures of attitudes and characteristics, as Lee theorized, such as self-esteem, narcissism, temperament, relationship commitment, and attachment style (Davies, 1996; Davis, 1999; Hendrick & Hendrick, 1990; Hendrick & Hendrick, 1986; Hendrick, Hendrick, Foote, & Slapion-Foote, 1984; Richardson, Medvin & Hammock; 1988, Woll, 1989; Worobey, 2001). Despite of their good psychometric properties, it can be argued that the LAS scales do not assess all of the dimensions of each love style as defined by Lee. Only the items that grouped together during factor analysis were eventually retained by Hendrick and Hendrick (1986) in the LAS (see Table 4 for Ludus and Mania scales). As will be discussed, new scales for each dimension of love outlined in the following section will be created because the LAS did not clearly tap these dimensions of the love styles.

Table 4. Love Attitudes Scale, developed by Hendrick & Hendrick (1986)

Rate how much you agree or disagree with each of the statements using the scale below. Some of the items refer to a specific love relationship, while others refer to general attitudes and beliefs about love. Whenever possible, answer the questions with your current partner in mind. If you are not currently dating anyone, answer the questions with your most recent partner in mind. If you have never been in love, answer in terms of what you think your responses would most likely be.

Ludus

1. I try to keep my lover a little uncertain about my commitment to him/her.
2. I believe that what my lover doesn't know about me won't hurt him/her.
3. I have sometimes had to keep two of my lovers from finding out about each other.
4. I can get over love affairs pretty easily and quickly.
5. My lover would get upset if he/she knew of some of the things I've done with other people.
6. When my lover gets too dependent on me, I want to back off a little.
7. I enjoy playing the "game of love" with a number of different partners.

Mania

1. When things aren't right with my lover and me, my stomach gets upset.
 2. When my love affairs break up, I get so depressed that I have even thought of suicide.
 3. Sometimes I get so excited about being in love that I can't sleep.
 4. When my lover doesn't pay attention to me, I feel sick all over.
 5. When I am in love, I have trouble concentrating on anything else.
 6. I cannot relax if I suspect that my lover is with someone else.
 7. If my lover ignores me for a while, I sometimes do stupid things to get his/her attention back.
-

Note. Participants rated each item on a 5-point likert scale, where 1 = strongly disagree, 2= moderately disagree, 3= neutral, 4= moderately agree, and 5 = strongly agree

1.4.2 Ludus

Lee named ludus after Ovid's term *amor ludens*, meaning “playful love” (Lee, 1974). As Lee described, ludics approach intimate relationships with the belief that love is intended to be a game to be played according to a set of rules. If this were true, then fun, game-like exchanges would be ideal. Game-playing is one of the dimensions investigated in this research.

The idea that love is fun may explain some of the exchanges between lovers. When love is no longer fun, a ludic would leave the relationship and look for a new relationship that might be more enjoyable (Lee, 1973). Ludics have been known to hold multiple relationships

simultaneously as well as have serial affairs; Lee (1973) calls this love style pluralistic. Even the term “relationship” might not be accurate to describe love pairings for ludics. Ludics may seek brief “encounters” or “exchanges” between with their partners but not relationships, per se (Lee, 1976).

Ludus often involves games designed to collect love experiences. In reference to ludus in the arts, the legendary character Don Juan embodies ludic characteristics, such as falsely promising marriage to romantic partners and then leaving them in order to find new partners (Lee, 1973). Classically ludic, Don Juan had many brief love affairs and often had many lovers at once. Ludics are collectors of love experiences (Lee, 1976); perhaps in the way sporting enthusiasts collect trophies.

Ludic love is characterized by encounters with strangers and these encounters are viewed by ludic lovers as optional diversions. Games, after all are played for fun, not out of need. Over 90% of ludic lovers in Lee’s (1973) study reported that when the relationship started the partners were strangers. Ludics do not tend to develop romantic attachments to friends. Lee (1973) also found that ludics were not likely to view love as essential; they could take it or leave it as they chose.

When ludics do get involved with a partner, they report the desire to remain in control of their relationship. The careful control of involvement has led to ludus being labeled a calculating and manipulative approach to love (Lee, 1976). Over 90% of ludics reported exercising some attempt to control the relationship (Lee, 1973). Nearly always, ludics deliberately restrained the frequency of contact with their partners, restricted the display of feelings with partners, and maintained their position as the lover who can terminate the relationship (Lee, 1973). In short, ludics desire to keep the upper hand in their relationship and to be in charge. Other researchers

have cited that this manipulative, controlling element of ludus as driving factor for some sexually coercive behavior (Sarwer, Kalichman, Johnson, Early, & Ali, 1993). The aspect of control received special attention in this study.

1.4.3 Developing Aspects Related to Ludus

This study sought to further develop the ludic dimensions of control and game playing. It developed new measures to assess these dimensions. As will be discussed, other studies have cited the desire for control and game-playing as critical aspects of ludus that may relate to sexual coercion. Each of the dimensions outlined below are built from Lee's ideas about ludus and may be related to one another.

1.4.3.1 Control

Ludics desire to carefully and deliberately control their lover's behavior. Lee (1973) noted that others call this approach to love "manipulative and calculating." Accordingly, I argue that controlling lovers may take pleasure in manipulating people and situations. I suggest that such lovers might find this carefully exercised control over others rewarding and challenging.

I argue that controlling lovers take pleasure in getting others to do whatever they desire. For example, a controlling lover might desire for his partner to remove the trash from his dorm room. He would then find it rewarding to coerce his partner into doing it. He might provide some form of logical argument about why he cannot do it, and prey on his partners' altruistic tendencies. The controlling lover could use emotionally coercive tactics as well. He might purposefully incite jealousy in the lover by telling stories about a former, tidier lover. When controlling partners desire to get their partners to engage in sexual activity, they might exercise

the same types of scheming behavior, especially since a refusal of a sexual advance is likely to be perceived as threatening his or her ability to control the situation. *Using this logic, in Hypothesis EM 1, those reporting greater use of emotionally manipulative tactics, such as the use of continual arguments and the offering of promises not meant to be kept (false promises), would report higher endorsement of the control dimension than those reporting lower use of emotionally manipulative tactics.*

Based on the above logic, controlling lovers may also carefully select their targets, choosing those who might be easy to control. Targets may be gullible, naïve, younger, or drunken people. Controlling lovers might find their arguments more persuasive and the exercise of control more successful with these individuals. Drunken targets may not have the mental faculty to offer much resistance to the controlling lover's efforts at control. The attempt to prey on individuals with a lessened capacity to provide consent meets the criteria for exploitation. *Therefore, in Hypothesis EX 1, I predict that higher level exploitative coercers would report greater endorsement of the control dimension than those perpetrating at a lower level of Exploitation Coercion.*

1.4.3.2 Development of the Control Scale

This study will develop a new scale to measure the desire to control the romantic target or romantic situation (see Table 5). Control as part of an ideal love style is based on ideas of the ludus. *Therefore, in Hypothesis CON 1, it is hypothesized that endorsement of Control would positively relate to endorsement of an established measure of Ludus using the LAS (LAS: Hendrick & Hendrick, 1986; see Table 5).* Because these lovers would seek to exercise control over their targets, they might actively seek targets that are easy to control, or “easy” targets.

Thus, as a validation criterion, in Hypotheses CON 2, endorsement of Control should positively relate to self-reported frequency in the previous 6 months of purposefully searching for “easy” partners. In other studies, males tend to endorse Ludus to a greater extent than females (e.g., Hendrick, Hendrick, Foote, & Slapion-Foote, 1984). Thus, in Hypothesis CON 3, in attempts to establish known group validity, it was predicted that males will endorse Control (i.e. an element related to Ludus) to a greater extent than females.

1.4.3.3 Game-Playing

Another aspect of ludus involves the desire to apply a strategic approach to romantic situations. For ludics, “life may be viewed as a game or series of games, in which players take calculated risks to win desired payoffs” (Lee, 1976, p. 47). The idea that love is a game and romantic partners are players is a familiar concept in everyday language and in self-help books (see Table 6). Commonly, we refer to these lovers as “players.” Further, Lee (1973) outlines the use of specific tactics to be played like a hand in a card game, highlighting the sporting conduct of ludic love. In games, players take turns, with each furthering the progression of the game. In poker, a bluff is followed by a call. In tennis, each player in the match takes a turn advancing the match by lobbing the tennis ball back and forth over the net. For ludics, the game of love may be similar.

According to Lee, this game of love has “rules, strategies, and points for ability – as well as penalties for those who play it badly” (1973, p. 58). These strategies include flattery, flirting, coyness, the use of generic pick-up lines and compliments, and mild deceptions (Lee, 1973). These “little deceits of love add pleasure and excitement to the game” for the ludic lover desiring game-like exchanges (1973, p. 59).

The idea of taking turns, responding to a partner's maneuver, may be central for those who are high in Game-Playing as an ideal aspect of love. The notion of game-like maneuvers is a classic element of ludus (Lee, 1976). Game-players may take turns using verbal and emotional exchanges as part of their advancing strategy in the game of love. Following a target's refusal, the ideal player may offer a lie, bluff, or offer a false promise, like "I promise to love you forever" in order to break down his partner's resistance. In sexual encounters, then, it is expected that game players will perceive their partner's refusals of sexual advances as tactical retreats meant to be countered. The players would then be motivated to counter the target's refusal with another sexual advance. In this way, the ideal lover and target would be taking turns persisting and objecting to sexual advances in the game of love. Therefore, when targets do not respond favorably to a player's sexual advance, the player is likely to persist with another advance believing the target is merely playing coy.

The offender's persistence is likely to take the form of physical seduction because they believe this exchange is part of the sexual initiation process. *Based on this logic, in Hypothesis ENT 1, those reporting greater use of Enticement Coercion, such as persistent kissing and touching when the target is not willing, should report higher endorsement of Game-Playing than those reporting lower levels of Enticement Coercion.*

Ideal players may apply verbal pressure after the target's refusal, such as offering a logical argument for why the two should engage in sex. *Therefore, in Hypothesis EM 2, I predict that those reporting higher levels of Emotional Manipulation will endorse Game-Playing to a greater extent than those with lower levels of Emotional Manipulation Coercion.*

According to script theory, sexual encounters are learned interactions that follow predictable sequences. The traditional script theory (TSS) is the normative heterosexual dating

script that states that first men initiate a sexual advance where women are *expected* to resist and then males are expected to persist in the sexual advance (Byers, 1996). Given this, it is expected that game-playing may explain sexual coercion to a greater degree for males than females.

According to the TSS, female game players would usually perform their game-playing role by offering resistance to sexual advances. Two significant interactions were predicted based on TSS. *A significant interaction was predicted in Hypothesis ENT 2, such that higher level male Enticement Coercers would report higher endorsement of Game-Playing than would higher level female Enticement Coercers. Another significant interaction was predicted in Hypothesis EM 3, such that higher level male Emotional Manipulators will report higher endorsement of Game-Playing than higher level female Emotional Manipulators.*

1.4.3.4 Development of the Game-playing Scale

A new scale for game-playing was developed (see Table 5). *In Hypothesis GP 1, I predicted that endorsement of the game-playing scale would positively relate to endorsement of the established measure of Ludus using the LAS (LAS: Hendrick & Hendrick, 1986). If game-playing involves following a set of established rules in relationships, these lovers may be likely to discuss these rules with their relationship partners. Therefore, it was predicted that ideal endorsement of game-play would positively relate to the self-reported frequency of starting a conversation with a romantic partner where the lover “defined rules” for that relationship, in Hypothesis GP2. In other studies, males tend to endorse Ludus to a greater extent than females (e.g., Hendrick, Hendrick, Foote, & Slapion-Foote, 1984). Thus, in attempts to establish known group validity in Hypotheses GP3, it was predicted that males will endorse Game-Playing (i.e. an element related to Ludus) to a greater extent than females.*

1.4.4 Mania

This study also sought to develop the aspects of emotional intensity and reciprocity, both characteristics of manic love as described by Lee (1973). In this section, dimensions for emotional intensity and reciprocity are described. In each explanation, specific hypotheses are drawn between these dimensions and tactics of sexually coercive behaviors.

The term “mania” comes from the Greek phrase “theia mania”, which means “the madness from the gods” (Lee, 1974). An example of mania is portrayed in the film, *The Graduate*. Following a steamy affair with an older woman, the protagonist Benjamin develops a manic obsession with the older woman’s daughter. It is in this relationship with the daughter that the protagonist develops an intense and manic preoccupation with his lover and “collapses into total manic lack of control” (Lee, 1973, p. 213). The story portrays “the futile rebellion of the young against parental authority and social morality” (Lee, 1973, p. 214). I suggest that intensity of emotion fuels the betrayal of social mores and principles.

Manic lovers are likely to be overwhelmed and act irrationally since they experience strong emotion. Lee says, the manic “sees rivals everywhere, distrusts the sincerity of the partner, remains dissatisfied with her affection no matter how often it's expressed, turns the relationship over constantly in his mind, and generally behaves as if he's taken leave of his senses” (Lee, 1973, p. 98). One of the classic elements of mania is jealousy. Manics not only accept jealousy in their relationships, they actually believe jealousy is proof of love (Lee, 1973). Without some jealousy, a manic would not believe he or his partner was truly in love. Taking leave of one’s senses, a manic engages in “self-defeating extremities of emotion and desperate attempts to force reciprocal feelings from the beloved...” (Lee, 1973, p. 95). Based on Lee’s

ideas, it can be seen that manics ideally seek emotional intensity. This element was given particular attention in this study.

Besides emotional intensity, another element of manic love has implications for sexual coercion. Lee (1973) found that over 90% of the manics that he interviewed reported attempts to force their partners to show more feeling. Manic love involves forceful attempts at gaining reciprocal feelings from the beloved. The desire for reciprocity serves as an ideal aspect of love in this study.

Lee argued that the manics' attempts at forcing reciprocity are often desperate. Manics are in *need* of constant reassurance leading them to extreme efforts to gain this reassurance. This need stems from a deep emotional insecurity residing in the manic lover. Emotional insecurity is a classic symptom of manic love (Lee, 1973). Irrational thoughts and feelings stem from this insecurity because manics truly feel they cannot be loved (Lee, 1973).

Many dimensions of mania may relate to sexual coercion. In order to narrow the scope of this study, only two dimensions of mania were developed. Both the desire for reciprocity and emotional intensity were developed in detail in the following section.

Findings are inconsistent regarding gender differences in the endorsement of mania; when differences were found in endorsement of mania, females tended to report higher agreement with the LAS mania scale (e.g., Davis, 1999; Hendrick, Hendrick, Foote & Slapion-Foote, 1984). Reporting feeling stronger emotions may explain the gender differences found in the endorsement of mania. Women generally report more intense emotional experiences (Lewis, Haviland-Jones, & Barrett, 2008).

1.4.5 Developing Aspects related to Mania

One goal of this study was to expand upon manic dimensions of love, specifically, emotional intensity and reciprocity. As done for ludic dimensions of love, this study created measures to assess these aspects of love. It was predicted that endorsement of emotional intensity and reciprocity would be different for those perpetrating at different levels within types of sexually coercive behaviors.

1.4.5.1 Reciprocity

One aspect of mania is the desire that the target of one's love demonstrate his or her own strong caring for the manic lover. This desire for reciprocity is so strong in the manic lover that he or she may insist that the target also demonstrate caring. This might be in the form of asking that there be turn taking in initiating interactions. Lee says, "He [the manic lover] may tell himself that it's her turn to call" (1980, p. 46). In situations where the target does not cooperate in demonstrating strong feelings for the manic lover, the manic lover might insist upon demonstrations of caring through force or threat of force. Over 90% of the manics that Lee interviewed reported attempts to force their partners into showing more feelings (1973).

The manic lover desiring demonstration of reciprocal feelings might also demand that sexual initiations be accepted, and might get angry when targets refuse sexual activity. This may lead to use of coercive emotional appeals (e.g., showing displeasure, getting angry, threatening to leave the relationships) in an attempt to make their partners display the desired affection. *In Hypothesis EM 4, it was predicted that those reporting a higher level of Emotional Manipulation (e.g., threatening to end the relationship) will report higher endorsement of reciprocity than those reporting lower use of such tactics.* Furthermore, those desiring reciprocity of sexual desires may initiate physically-based arousal tactics, like kissing and touching the partner after

he or she indicates a lack of sexual interest, in order to gain the desired expression of affection. *Therefore, a main effect of level of Enticement Coercion on endorsement of Reciprocity was predicted in Hypothesis ENT 3, where those reporting greater use of Enticement tactics will report higher endorsement of Reciprocity than those reporting lower use.*

1.4.5.2 Development of the Reciprocity Scale

Items in Table 5 have been developed to reflect reciprocity. If desire for reciprocity is a dimension of mania, then endorsement of reciprocity will correlate to endorsement of an established mania scale (LAS, Hendrick & Hendrick, 1986). *Thus, in Hypothesis REC 1, it was predicted that endorsement of Reciprocity would relate to endorsement of LAS mania.* Lovers desiring reciprocity report attempts to force their partners to show more feelings (including sexual desire) in the relationship (Lee, 1973). Therefore, they might be more likely to report initiating discussions with their partners in which they asked the partner to “show more feelings or sexual desire”. *Thus, in Hypothesis REC 2, to establish behavioral validity, it was predicted that endorsement of reciprocity will correlate with the number of times since age 16 that the participant reports initiating a discussion with a romantic or sexual partner asking him or her to “show more feeling or sexual desire”.*

In other studies, females tended to endorse Mania to a greater extent than females (e.g., Hendrick, Hendrick, Foote, & Slapion-Foote, 1984). As an aspects related to Mania, *it was predicted in Hypothesis REC 3, that females would endorse Reciprocity, to a greater extent than males.* This would contribute toward the establishment of known groups validity for Emotional Intensity.

1.4.5.3 Emotional Intensity

Manic lovers desire relationships involving their having intense, overwhelming emotions. They would endorse the statement made by Pascal “when one does not love to excess, one does not love enough” (cited by Lee, 1976, p. 94). These ideally intense lovers favor extreme experiences of love; they “want to be with their partners every day, to share every secret, to enjoy sex with the beloved, to make their love the center of existence” (Lee, 1976, p. 104). I would argue that seeing partners every day, disclosing every secret, placing the lover at the center of his or her life are all expression of the manic’s intense emotions.

With intense feelings toward a romantic partner, this type of lover would be expected to have strong sexual feelings and would be likely to act of these feelings. Since these lovers would intensely desire sexual activity due to their strongly felt sexual feelings, they may only be able to focus on their own sexual desire. Such lovers may not notice their partner’s resistance and even if they do, they may aggressively pursue sexual contact due to their arousal.

Given this lack of empathy toward the partner’s lack of sexual interest, ideally emotionally intense lovers might be likely to persist when their lovers are not “in the mood” through persistent physical arousal tactics (e.g., removal of clothing, persistent touching). *Based on this thinking, in Hypothesis ENT 4, it was predicted, that those reporting the greater use of enticement tactics, such as removal of target’s clothing and persistent touching and kissing, would report higher endorsement of emotional intensity than those reporting lower use of enticement tactics.*

These type of level of coercion predictions argue that coercers will report higher endorsement than non-coercers. In addition, these predictions expect that those using more tactics by category would report higher endorsements than those using fewer tactics. For

example, those using 3 enticement tactics should report higher endorsement of EI than those using only 1 enticement tactic.

1.4.5.4 Development of the Emotional Intensity Scale

A new scale reflecting emotional intensity (EI) was developed for this study (see Table 5 for all the initial items for each aspect of AIR Love). Items were created to reflect the summary of EI provided above. For example, as those high in EI would long to share every secret, they should also agree with the item “...where we share every secret” in Table 5.

Given emotional intensity is an aspect of mania, in Hypothesis EII, it was predicted that endorsement of Emotional Intensity should positively relate to endorsement of the Mania scale (LAS: Hendrick & Hendrick, 1986). Furthermore, in establishing validity of the Emotional Intensity measure, in Hypothesis EI 2, it was predicted that endorsement of emotional intensity will relate to the frequency since age 16 that the participant reports feeling “head over heels in love” with a romantic partner. This relationship is expected because ideally emotionally intense individuals would likely place themselves in situations where they could end up overwhelmed by their emotions.

In other studies, females tended to endorse Mania to a greater extent than females (e.g., Hendrick, Hendrick, Foote, & Slapion-Foote, 1984). As it is related to Mania, *in Hypothesis EI 3, it was predicted that females would endorse Emotional Intensity, to a greater extent than males.* This would contribute toward the establishment of known groups validity for Emotional Intensity.

1.4.6 Creating the AIR Love Scales.

Each individual aspect of idealized love outlined above for the current study cannot always be clearly tied to items on the LAS (see Table 4). None of the dimensions of ludus or mania (i.e., Control, Game-Playing, Emotional Intensity, Reciprocity) is directly measured on the LAS, making the detection of these dimensions using the LAS impractical. Therefore, new scales were developed to measure these four dimensions of love. The initial items and scales are presented in Table 5.

Table 5. Initial Scales for Aspects of Idealized Romantic Love

Item		“With people I’m involved with, I prefer romantic relationships (including dates and sexual experiences)...”
Control	D1	Where I can maneuver the situation
	D2	With partners that are easy to trick or influence
	D3	Where I can practice my persuasion skills
	D4	Where I can get others to do what I want
	D5	With partners that I cannot manipulate*
	D6	Where my partner insists on making the decisions* ^a
	D7	Where my partner calls the shots*
	D8	Where I decide what happens in the situation
Game-playing	G1	Where one partners initiates and the other responds, like in a game
	G2	That are played according to some type of rules, as games are
	G3	Where partners do take turns playing around
	G4	When my partner bluffs with a “no” when he/she really means “yes“
	G5	That involve the heavy use of flirting by both partners
	G6	Where I find opportunities to score points with my partner
	G7	That do not involve a lot of flirting*
	G8	Where my partner and I rarely play the game of love * ^a
Emotional Intensity	E1	Where I can express my strong feelings of love
	E2	Where I can be swept up (overcome) by feelings
	E3	Where the relationships is not very intense*
	E4	Where we share every secret
	E5	That are an outlet for my strong desires
	E6	Where I don’t have strong feelings about my partner*
	E7	Where our love is at the center of my life
	E8	Where emotions are often intense
Reciprocity	R1	Where My partner frequently shows his/her feelings for me
	R2	Where My partner cares for me as much as I do for him/her
	R3	Where my partner does not show me how he/she cares*
	R4	Where we take turns making dates
	R5	When he/she remembers to call when its his/her turn
	R6	Where I always end up making the effort to get together*
	R7	Where my partner returns my affections
	R8	With a partner that doesn’t ask to see me frequently*

Note. Scale options are: 1 = Strongly Disagree, 2 = Moderately Disagree, 3 = Equally Disagree AND Agree, 4 = Moderately Agree, 5 = Strongly Agree.*Indicates a reverse-scored item.

Items for ludus on the LAS tap avoiding commitment, withholding information, having multiple lovers, avoiding emotional involvement, behaving in a manner that would alarm the partner if the partner found out, and playing the game of love. None of these clearly addresses the control of the partner (see Table 4). Some of these items tap similar constructs, including the deception of the partner and withholding information, which may be controlling. The desire to control situations is not included in these scales, nor is the exercise of control over the partner.

I argue the LAS scale for mania and the scales for emotional intensity and reciprocity measure different aspects of ideal manic love. As can be seen in Table 4, many of the LAS items measuring mania seem to assess physical reactions to the experience of love (e.g., upset stomach, inability to sleep, cannot relax). Some items involve mental preoccupation, and extreme behaviors like suicide, or jealousy. In fact, most items on the LAS measure a visceral reaction to love (e.g., couldn't sleep, feel sick). While Lee notes that manics often feel symptoms of love (e.g., dizzy, headaches, feels weak in the knees), those who feel strong emotions or desire to feel strong emotions for their partners *but do not experience physical symptoms* would not be captured using the LAS scale for mania. Furthermore, of the seven LAS items measuring mania, none directly measures the desire for reciprocity. Two items in mania LAS scale, numbers 11 and 14 on Table 4, seem to tap a desire for attention, which could be argued to be similar to a desire for reciprocity. This initial scale measures elements of reciprocity outlined above that are neglected in the LAS scale for mania, including: a preference for displays of emotion, taking turns making dates, returns of affection, and partner's remembering to call when it's their turn.

1.5 RELATED EMPIRICAL RESEARCH

A few studies have examined Lee's love styles and the perpetration of sexual coercion by male and female college students. The following four studies measure love styles using the LAS, mentioned above (LAS: Hendrick & Hendrick, 1986) and the Sexual Experiences Survey (Koss & Oros, 1982) to classify sexual experience according to 3 categories (i.e., not sexually experienced, only consensually experienced, and coercively experienced). Most hypotheses drawn in these studies posit the ludic orientation as an explanation for sexual coercion due to related dispositional traits like masculinity, hostility toward women, manipulation, and narcissism (e.g., Kalichman, Sarwer, Johnson, Ali, Early, & Tuten, 1993). As will be seen, findings in the studies suggest that particular dimensions of ludus and mania may underlie the link between love styles and sexually coercive behavior.

Sarwer, Kalichman, Johnson, Early and Ali (1993). These researchers were interested in exploring love styles that might explain sexually coercive behavior among college males. They hypothesized that the ludic love style would explain variance in sexual coercion over and above personality traits previously found to relate to sexual coercion (i.e., sociopathy and masculinity). They suggested that the non-committal and game-playing aspects of ludus might relate to sociopathy and to masculinity and an increased likelihood of being sexually aggressive. They further predicted that endorsement of ludus would be the strongest predictor of sexual coercion within the six love styles.

A small convenience sample of 84 male college students who had never been married completed a battery of survey measures to assess several personality traits along with the SES and the LAS. To control for the effect of sexual experience on the perpetration of sexual

coercion, those reporting not having engaged in consensual intercourse with a women were excluded from the analysis. Logistic regression models were used to predict sexual experience type (i.e. consensual sex only or emotionally coercive sex) using all of Lee's six love styles and dispositional traits as the possible predictors. Ludus was entered first in a hierarchical approach, as it was the only love style theorized to predict sexual coercion. Then other variables were allowed to enter in a stepwise fashion to see if they could predict more of the variance. However, once ludus was entered, none of the other variables was significant predictors except the self-reported likelihood to use force to engage in sexual activity.

Sarwer et al (1993) provided one of the first glimpses into the link between endorsement of ludus and the perpetration of sexual coercion through verbal tactics and emotional manipulation (as measured using the SES, Koss & Oros, 1985). However, the specific aspects of ludus that were the foundation for this exploratory hypothesis (i.e. avoidance of commitment and *game-playing*) were not examined directly.

The current study will assess some of the limitations in Sarwer et al. (1993). There were potential problems in Sarwer and colleagues' analysis strategy. Entering ludus first using a hierarchical approach, as they did, and then allowing other variables to enter the model in a stepwise manner did not address the potential multicollinearity problem in assessing multiple lovestyles that are inherently related (Lee, 1973). Thus the current study used a MANOVA framework with aspects of idealized love stemming from these styles as a group of dependent measures. In addition, Sarwer et al. used a small sample of male participants to investigate its hypotheses about love styles and sexual coercion and ignored possible female coercers. The current study included females. Furthermore, the current study directly assessed the role of game-playing in sexual coercion perpetration.

Kalichman, Sarwer, Johnson, Ali, Early, and Tuten (1993). In a replication and extension of the study above, researchers argued that the casual, game-playing orientation to relationships associated with ludus overlapped with permissive sexual attitudes, sensation seeking and a need for aggression that might drive sexual coercion. A larger sample of 123 college males who had never been married completed a battery of survey measures including the SES, the LAS, an adult attachment measure (Hazan & Shaver, 1987) and the Love Experiences Questionnaire (Hazan & Shaver, 1987).

A multivariate analyses of variance (MANOVA) comparing three sexual experience groups (i.e. sexually inexperienced, consensually experienced, and coercively experienced) across each of the six love styles was significant. Pairwise comparisons using Tukey's Honest Significance Test (HSD) indicated that endorsement of ludus was higher for the coercively experienced group than the consensually experienced group and the inexperienced group. Pairwise comparisons of endorsement of ludus items suggested that differences in sexual coercion were due to the endorsement of two items reflecting lying and cheating in relationships where coercive males scored higher than consensually experienced or inexperienced groups. The authors cite manipulative *control elements* of ludus as a possible explanation for these relationships.

Other analyses showed that perpetrators of sexual coercion and consensual-sex-only experienced males reported different endorsement of some characteristics of their most important love relationships, measured using the Love Experiences Questionnaire (Hazan & Shaver, 1987). Two of the twelve categories measured overlap with dimensions examined in this study, emotional extremes and a desire for reciprocity. Coercively experienced males reported significantly higher amounts of *emotional extremes* in their most important love relationship than

consensual-sex-only experienced males. Emotional extremes are theoretically unrelated to ludic love because ludic love is characterized by emotional detachment; therefore, endorsement of ludus cannot explain this link. Emotional extremes are a characteristic of mania, suggesting that this dimension of mania may relate to the use of sexual coercion by males. No significant difference was found between male coercers and consensual-sex-only experienced males in their endorsement of a desire for reciprocity.

In contrast with Kalichman et al. (1993), the current study directly examines control and emotional intensity as two separate possible factors underlying the perpetration of sexual coercion. Extending their work, the current study also extends this investigation to female perpetrators. However, the evidence provided by Kalichman and colleagues (1993) above showed that male coercers and non-coercers did not differ in their endorsement of reciprocity, which suggests reciprocity may not a distinctive factor differentiating male coercers and male non-coercers. *Russell and Oswald (2001)*. Although the prior two studies were important steps, as mentioned, they do not explain the role of love styles in the perpetration of sexual coercion by females. In an important extension of these studies, Russell and Oswald replicated the studies cited above with 285 female college students. They used a similar design and the same measures (i.e., the LAS and the SES) as Sarwer and Kalichman and colleagues (1993), but reworded the SES for use with female perpetrators. MANOVAs were used to compare sexual coercion group (e.g., inexperienced, consensual, and coercive) for each of the six love styles along with other variables.

Results indicated that coercive females scored significantly higher on the ludus love scale than inexperienced or consensually experienced group. Interestingly consensually experienced females scored lower on *mania* than sexually inexperienced females or coercively experienced

females. This suggests that dimensions of different love styles may manifest differently in male and female college students. As an element of mania, Reciprocity may be key in distinguishing level or coercion in females, but in light of Kalichman et al (1993), not in males. *Thus, I predicted that endorsement patterns of Reciprocity might differ for male and female coercers and non-coercers. In Hypothesis ENT 5, it was predicted that high-level female Enticement coercers would report higher endorsement of Reciprocity than would high-level male Enticement coercers. Similarly, in Hypothesis EM 5, it was predicted that high-level female Emotional Manipulators would report higher endorsement of Reciprocity than would high-level male Emotional Manipulators.*

Russell and Oswald (2002). In efforts to replicate earlier work on the college male perpetration of sexual coercion (Kalichman et al., 1993, Sarwer et al., 1993), Russell and Oswald explored the connection between sexual coercion perpetration by 173 college males and their love styles. Russell and Oswald predicted that the attitudinal elements of the ludic love style (e.g., desire for control, game-playing) would relate with males' reported use of sexual coercion, using the LAS and SES. Consistent with the previous studies, one limitation of this study is that these researchers used the LAS to measure the elements of ludic love and did not measure the desire for control or game-playing directly, as the current study did.

Using MANOVAs comparing three categories of sexual coercion (i.e., inexperienced, consensual, coercive) by endorsement of each of the six love styles, the researchers found that coercive men scored significantly higher on the ludus love scale than those with only consensual experience and inexperienced groups. These authors explain their findings by saying, "coercive individuals are more likely to believe that intimate relationships are adversarial and that game-playing and manipulation constitute normal behavior" (p. 282). The current study improved upon

Russell and Oswald (2000) by directly measuring the dimensions of game-playing and manipulation as relationship ideals separately.

1.6 SUMMARY

Prior work suggests that ludus and mania are related to sexual coercion. However, previous research is limited in that only one study examined female perpetrators. Therefore, a claim about “individuals” is tentative until more female data supports the link between love styles and sexual coercion. The current study proposes a link between aspects of ludic love and the perpetration of sexual coercion in college females, extending the limited literature. Furthermore, research suggests but does not test hypotheses tying specific dimensions of ludic and manic love to sexual coercion (e.g., Sarwer et al., 1993). The current study develops scales to assess four unique aspects of idealized love that stem from ludic and manic ideals (i.e., Control, Game-Playing, Reciprocity, and Emotional Intensity).

The current study develops more specific measures for these aspects of love styles, as well as improves upon the limited measurement of sexual coercion used in related work above. The 1982 version of the SES used in the four studies above lacks items that are discriminative for males and females and items that may capture a wider variance of responding by college perpetrators of sexual coercion. This study improves upon this limitation by providing measures of sexual coercion that may have increased endorsement for male and female perpetrators of sexual coercion. Furthermore, the current work uses a narrower definition of sexual activity than prior work and a tactics-based (i.e., more specific) approach to studying sexual coercion.

In addition, this study is the first, to the author’s knowledge, to examine sexual coercion and aspects of idealized romantic love in both male and female college students. This will provide the first opportunity to explore gender-based differences in the endorsement of aspects

of idealized love by sexual coercion perpetration. The review above suggests that love styles may operate differently for males and females. The next section suggests how differential effects may operate by gender.

1.7 FORMAL HYPOTHESES

The first set of hypotheses in this study assess the validity of the created scales for AIR Love. Thus, it was predicted that endorsement of *Control* would positively relate to the endorsement of Ludus and the frequency of searching for “easy” partners. It was predicted that endorsement of *Game-Playing* would positively relate to the endorsement of Ludus and the frequency of “defining rules” for their relationships. It was predicted that males would endorse *Control* and *Game-Playing* to a greater extent than females. For aspects related to Mania, it was predicted that endorsement of *Reciprocity* and *Emotional Intensity* would relate to LAS Mania endorsement. Also, it was predicted that females would endorse *Reciprocity* and *Emotional Intensity* to a greater extent than males. To establish behavioral validity, it was predicted that endorsement of *Reciprocity* would positively relate to reports of initiating discussions asking partners to “show more feeling”. Finally, it was predicted that endorsement of *Emotional Intensity* would positively relate to frequency of being “head over heels in love”.

The main predictions for the study were assessed using three separate MANCOVAs for each type of sexual coercion (i.e., Enticement, Emotional Manipulation, and Exploitation) by gender. As explained, some relationship and demographic variables were either related to independent or dependent variables in this study or varied by gender. Thus, these relationship and demographic variables (i.e., age, relationship length, prior urban residency, maximum prior victimization, race, and dating stating) were explored as possible covariates. When significant, they were controlled for in tests of hypotheses relating to sexual coercion. In a two-factor

between-subjects design, the independent variables were sexual coercion experience (levels vary) and gender (male or female), using four dependent variables of endorsement of Control, Game-Playing, Reciprocity, and Emotional Intensity.

Enticement Coercion Level. A MANCOVA examining mean differences on ideal love by gender and Level of Enticement Coercion (i.e. Non-coercers, those using 1 tactic, those using 2 or 3 tactics, those using 4 or more tactics) tested the following hypotheses. This model controlled for age of the participants.

ENT 1. A main effect of Level of Enticement Coercion was expected, where higher level Enticement Coercers would endorse *Game-Playing* more than lower level Enticements Coercers.

ENT 2. An interaction was predicted, such that higher level coercive males would report higher endorsement of *game-playing* than coercive females due to different roles for males and females outlined by traditional script theory (TSS), where males initiate sexual activity and women respond to their advances with rejections.

ENT 3. In a main effect of Level of Enticement Coercion was expected, where higher level Enticement Coercers would endorse Reciprocity more than lower level Enticements Coercers.

ENT 4. In a main effect of Level of Enticement Coercion was expected, where higher level Enticement Coercers would endorse Emotional Intensity more than lower level Enticements Coercers.

ENT 5. Based on findings from Kalichman (1993) a gender X Level of Enticement Coercion effect was predicted, such that higher level male Enticement Coercers would report lower endorsement of *Reciprocity* than higher level female Enticement

Coercers. This was expected due to finding that Reciprocity was only liked to sexual coercion for females in their study.

Level of *Emotional Manipulation Coercion*. A second MANCOVA examining mean differences on ideal love by gender and Level of Emotional Manipulation Coercion (i.e. Non-Coercers, Coercers using 1 tactic, Coercers using 2 tactics, Coercers using 3 or more tactics) tested the following hypotheses. This model controlled for age of the participants and relationship length.

EM 1. A main effect of Level of Emotional Manipulation Coercion was expected. It was predicted that higher levels of Emotional Manipulation Coercers would endorse *Control* more than lower level Emotional Manipulation Coercers.

EM 2. A main effect of Level of Emotional Manipulation Coercion was expected, where higher level Emotional Manipulation Coercers would endorse *Game-Playing* more than lower level Emotional Manipulation Coercers.

EM 3. An interaction was predicted, such that higher level male Emotional Manipulation Coercers would report higher endorsement of *Game-Playing* than higher level female Emotional Manipulation Coercers due to different roles for males and females outlined by traditional script theory (TSS), where males initiate sexual activity and women respond to their advances with rejections.

EM 4. A main effect of Level of Emotional Manipulation Coercion was expected, where higher level Emotional Manipulation Coercers would endorse *Reciprocity* more than lower level Emotional Manipulation Coercers.

EM 5. Based on findings from Kalichman (1993) a gender X Level of Enticement Coercion effect was predicted, such that higher level male Emotional Manipulation

Coercers would report lower endorsement of *Game-Playing* than higher level female Emotional Manipulation. This was expected due to finding that Reciprocity was only linked to sexual coercion for females in their study.

Level of Exploitation Coercion. A third MANCOVA examined mean differences on AIR Love by gender and Level of Exploitation Coercion (None-coercers, used 1 exploitation tactic, used 2 or more exploitation tactic). This model controlled for age of the participant.

EX 1. A main effect of Level of Exploitation Coercion was expected. It was predicted that higher levels Exploitation Coercers would endorse *Control* more than lower level Exploitation Coercers.

2.0 METHOD

2.1 PARTICIPANTS

Three hundred and sixty-seven undergraduates (139 males, 224 females, and 4 that failed to report gender) recruited from the University of Pittsburgh human subjects pool participated in partial fulfillment of course credit. Participants (Ps) self-selected studies in which to participate. Seven Ps (5 females and 2 males) were engaged or cohabiting at the time of data collection and were excluded for not meeting study criteria (see recruitment Script in Appendix A). Four Ps (2 males and 2 females) were excluded for entering erroneous options (i.e. values that extended beyond the possible ranges for response options) on the answer form. Two Ps' data (1 female and 1 that failed to report gender) were eliminated from analyses because their proportions of missing data exceeded .20.

A total of 57 Ps (21 males, 35 females, and 1 that failed to report gender) reported that they had never willingly engaged in sexual activity. Sexual activity, in this study, was defined as “petting, sexual touching, or intercourse (that is, vaginal or anal sex) with someone since the age of 16”. Ps with and without prior sexual experience reporting “never” to sexual perpetration represent meaningfully different groups. Ps with prior sexual experience had the opportunity to coerce their sexual partners, while those without prior sexual experience had not. These analyses aim to focus on individuals with the opportunity to coerce others into sexual activity. Thus, cases retained are those who willfully engaged in sexual activity since age 16 (e.g. this age was selected to equate individuals on reference points, as reference points could influence rates of reporting).

Further, this study was concerned with the romantic ideals of individuals that had the opportunity to coerce opposite-sex partners. Thus, a total of 27 participants (13 males and females and 1 that failed to report gender) were excluded because they indicated they sometimes or primarily engaged in sexual activity with members of the same sex. This left a total *N* of 270 (101 males, 168 females, and 1 that failed to report gender); this total exceeds the 120 case sample required by the power-based sample size estimate in Appendix B.

Ps' ages ranged from 18 years to 24 years. On average, participants were 19.03 years old ($SD = 1.12$). The majority of the sample was between the ages of 18 and 20 (91%). The majority of males and females were Caucasian/White (84.0% of males and 84.4% of females). Smaller portions of the sample were Asian (5.0.% of males and 9.0% of females) or African-Americans (11.9% of males and 4.8% of females). Three females (1.8%) reported their race as American Indian/Alaskan Native. Only 2.0% of males and 1.2% of females were Hispanic/Latino(a).

Nearly a fifth of the sample either never attended religious services or attended more than once per week, 18% and 19%, respectively. Nearly a third of the males and females attended religious services annually (28.7% of males and 31.1% of females). Approximately another third attended religious services approximately monthly (32.7% of males and 29.9% of females). More than a fifth of males (22.8%) and 15.6% of females never attended religious services. More than a fifth of females (21.6%) and 14.9% of males reported weekly attendance at religious services.

A little more than half of the participants (59%) never lived in an urban area before attending the University of Pittsburgh. About a fifth of the sample either lived in an urban area under 2 years or 3 or more years before attending the University of Pittsburgh, 20% and 21%, respectively. The majority of males and females never lived in an urban area before coming to

college (56.4% of males and 59.9% of females). Approximately a fifth of males and females lived in an urban area 1 to 2 years before coming to college (18.8% of males and 21.0% of females). Nearly a quarter of males (24.8%) and a fifth of the females (19.2%) had lived in an urban location for 3 or more years prior to moving to Pittsburgh for college.

More than half of the sample (61%) labeled themselves as currently dating. The average reported relationship length for those currently dating was 5.94 months ($SD = 3.36$). A small proportion of those currently dating (6%) reported dating their current partner “0 months”; given the option for “1 month or less” was available. Though these data points may have been erroneous, they were retained; it seemed more likely that the individuals may have been casually dating someone but did not feel they had a “current partner”.

2.2 PROCEDURE

Anonymous surveys were administered to Ps in small groups of 1-19. To maintain privacy, Ps were spaced at least one seat apart in a large conference room. Survey instructions, as they appear printed on the complete survey (see Appendix C for survey), were read aloud to the group. Ps recorded survey responses using optically scannable bubble-sheet style answer sheets. Before dismissal, Ps were individually provided with debriefing information (see Appendix D) and provided the opportunity to speak with the researcher or contact her later via email with concerns or questions.

In addition to essential scales and items for hypotheses testing, additional survey measures were included to disguise study hypotheses. These distraction scales also served to raise Ps' affective experience from survey administration by increasing the proportion of

positively-valenced items. Distraction scales and items appear in Appendix E, only scales and items essential for analyses are discussed in the next section.

This procedure was pilot tested with a small sample of 5 males and 5 females. In small groups of 2 to 8, participants completed the anonymous sexual coercion and love survey packet and a follow-up survey. This follow-up survey assessed participants' experience of participating in the research using forced-choice and open-ended questions. The follow-up measured aspects related to Ps participation that may have been problematic (e.g., ability to respond honestly) and assessed general outcomes (e.g., feelings after completing the study). Pilot data alleviated concerns regarding Ps' discomfort or changes in mood resulting from participation. The pilot data also provided evidence to suggest Ps were able to provide honest responses on the survey. Please see Appendix F for a summary of the pilot test results.

2.3 MEASURES

2.3.1 Demographic, Relationship, and Sexual Activity Variables

The following demographic variables were captured and those correlating with the independent or dependent variables were explored as covariates within analyses. Ps reported age, race, and ethnicity. Ps reported their own gender as well as the gender of the person with whom they engaged in sexual acts. The former was used to detect main effects of gender on romantic ideals; the latter was used as a measure of sexual orientation. Ps also reported the length of time they had lived in an urban area before attending the University of Pittsburgh. Please see Appendix G for a listing of all items. Participants were also asked how frequently they attended religious services ranging from "Never" to "More than once per week".

Ps were asked to report on their current relationship and dating status. Ps reported their current relationship status (i.e., not dating, casually dating, steadily dating, living together but not engaged, engaged, or married). As discussed, this was used to filter data and later as a covariate in analyses. Those reportedly “not dating” were considered single, while those either “casually dating” or “steadily dating” were collapsed and considered “dating” for analyses. Relationship length was also captured (ranging from 0 months to 9 or more months).

Ps were asked to report their prior sexual experience. One “yes/no” item asked if individuals had “ever [sic] willingly engaged in sexual activity, such as petting or sexual touching or sexual intercourse (that is, oral, vaginal or anal sex) with someone since the age of 16?” As another type of prior sexual experience, past sexual coercion victimization was measured using a mirror survey to one described later in the section for perpetration. A maximum frequency of each Ps’ reported sexual victimization since age 16, ranging from “Never” to “Very Often”, across all categories of sexual coercion (i.e. enticement, emotional manipulation, and exploitation) was calculated.

2.3.2 Aspects of Idealized Romantic (AIR) Love

Four scales measured control, game-playing, emotional intensity, and reciprocity as individual aspects of romantic love. Scales shared a stem, “With people I’m involved with romantically, I *prefer* [sic] relationships (including dates and sexual experiences)...”, and 5-point Likert response categories (1 to 5) ranging from “Strongly Disagree” to “Strongly Agree”. Items from the scales, summarized below, were presented such that each consecutive item in the survey was drawn from a different scale than the previous and next item was drawn (see Appendix C). Distraction items were interspersed within this pattern.

Scales were evaluated by calculating reliabilities using Cronbach's α , performing Exploratory Factor Analyses (EFA), and calculating correlations for validity assessments. Please see Appendix H for scale reliabilities, scale means, and item level statistics. Item level statistics include forced 1-Factor loadings, with analyses done separately for each scale, resulting from EFA, corrected item-total correlations (CIC), squared multiple correlations (SMC), and inter-item correlations (ICC) for each of the AIR love scales. As Appendix H illustrates, all ICCs within scales are positive. CICs and SMCs can be used to detect the best items by scale. Ranges of factor loadings are provided in the next sections by scales. Validity analyses are summarized in the results section, as they were part of the tested hypotheses of this study.

2.3.2.1 Control

This 6-item scale was designed to capture the manipulative aspect of control, as outlined in Lee's description of Ludus. A sample item for the control scale is "With people I'm involved with romantically, I *prefer* [sic] relationships (including dates and sexual experiences)...where I can maneuver the situation." After omitting some items that decreased internal reliability, this scale was acceptably consistent ($\alpha = .74$). Two of the originally created items had to be removed in order to reach an appropriate alpha. The omitted items were "With people I'm involved with romantically, I *prefer* [sic] relationships (including dates and sexual experiences)...where my partner calls the shots (reverse-scored-item)" and "...where my partner insists on making the decisions (reverse-scored-item). Factor loadings of the remaining items on the Control scale range from .45 - .81. Control scales means were computed for each participant and used as one of the dependent measures for this study. The distribution of control scale means were reasonably distribution, thus raw scale means were retained.

2.3.2.2 Game-Playing (GP)

This 7-item scale was designed to capture the playful aspect of game-playing in romantic relationships. A sample item for this scale is “With people I’m involved with romantically, I *prefer* [sic] relationships (including dates and sexual experiences)...where one partner initiates and the other responds.” After deletion of one item, this scale demonstrated low but adequate internal reliability ($\alpha = .63$). The deleted item was “With people I’m involved with romantically, I *prefer* [sic] relationships (including dates and sexual experiences)...where my partner and I rarely play the game of love (reverse-scored-item).” As noted in Kline (1999), alphas in this low range are common when measuring social constructs. Factor loadings of the remaining items on the GP scale range from .37 - .80. Individuals’ GP scale means were computed and used as one of the dependent measures for this study. Given a satisfactory distribution of GP scale means, raw scale means were retained.

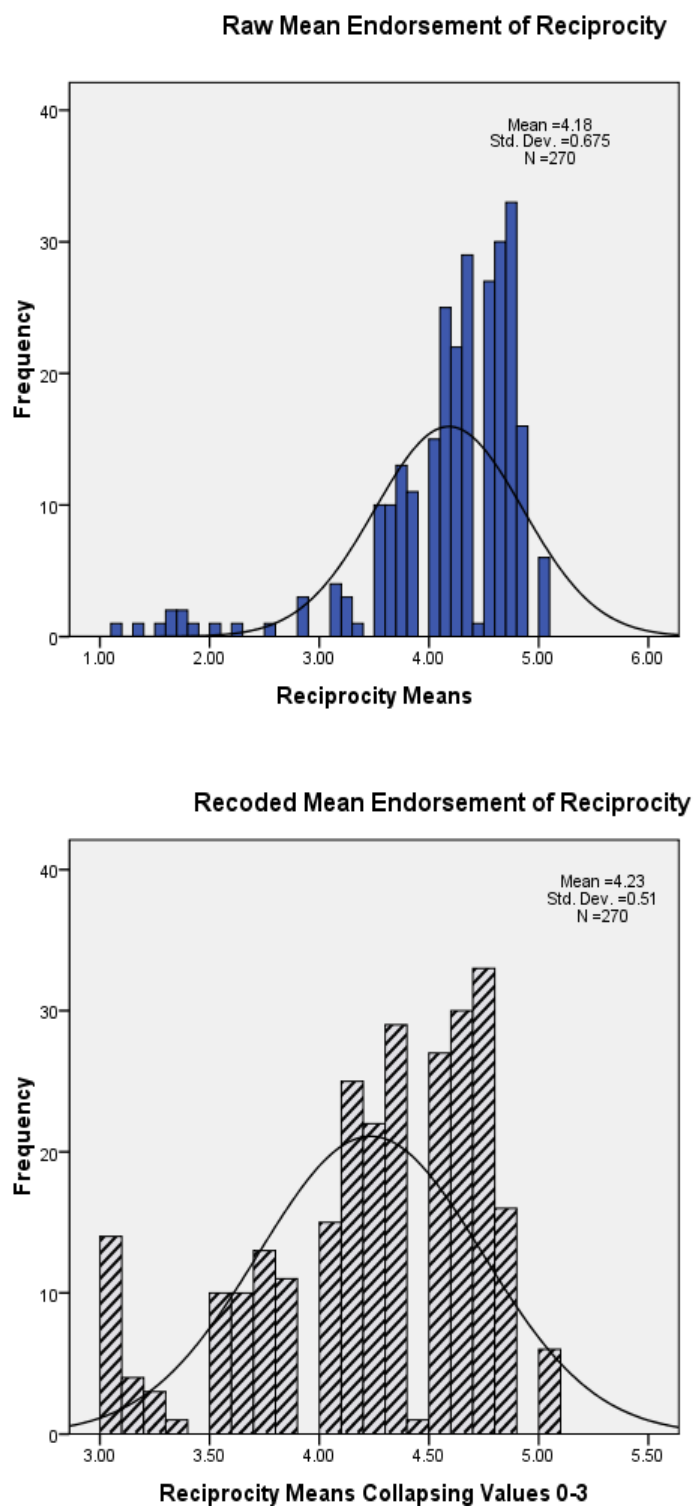
2.3.2.3 Reciprocity

This 8-item scale assessed the AIR love aspect, reciprocity, were Ps desire a mirroring of their feelings, thoughts, and behaviors from their partners. A sample item from this scale is “With people I’m involved with romantically, I *prefer* [sic] relationships (including dates and sexual experiences)...where my partner returns my affections.” This scale has good internal reliability ($\alpha = .86$). All items were retained, with factor loading ranging from .49 - .88. Individuals’ Reciprocity scale means were computed and used as one dependent measure. The distribution of reciprocity scale means were negatively skewed; thus, reciprocity scale means were re-coded. Those scoring at and below 3 were collapsed into a category and assigned the value “3”. Please see Figure 1.

2.3.2.4 Emotional Intensity (EI)

This 8-item scale measured an aspect of romantic love that involves a desire to express strong feelings. A sample item from this scale is “With people I’m involved with romantically, I **prefer** [sic] relationships (including dates and sexual experiences)...where I can be swept up (overcome) by feelings.” This scale has acceptable internal reliability ($\alpha = .77$). All items were retained, with factor loading ranging from .47 - .76. Ps’ EI scale means were computed, then used as one dependent measure.

Figure 1. Raw and recoded distributions of Reciprocity Means



2.3.3 Sexual Coercion Perpetration

Ps were asked to report how frequently they perpetrated various acts of sexual coercion.

Instructions adapted from Zurbriggen (2000) read:

The items below describe behaviors that sometimes occur between people. Some of the behaviors below are acceptable to some people and others are not. Using the scale below, **rate how frequently, you have done these acts since age 16.** Keep in mind that the word “sex” in every item includes genital touching and intercourse (oral sex, anal sex, and vaginal sex).

Frequency of perpetration was captured with a 5-point Likert scale (1-5), ranging from “Never” to “Very Often” (see Appendix C for the full survey). Three categories of sexually coercive tactics were measured, with 6 tactics assessed in each of three categories of sexual coercion: Enticement, Emotional Manipulation (EM), and Exploitation.

Tactics were drawn from the literature and developed to mirror existing scales used with male and female samples. Sexually coercive tactics were drawn, based upon frequency, from three groups of researchers (Koss et al., 2007; Struckman-Johnson, Struckman-Johnson, & Anderson, 2003; Zurbriggen, 2000) (see Table 3 for items and sources). Items were presented in the same pattern outlined for AIR Love items and, similarly, separated by distraction item with a more-positive valence.

In line with Zurbriggen (2000) but not Koss et al. (2007), each item referenced only one act of perpetration. This method aided interpretations since the behavior referred to was more clearly specified. Specifically, this method was preferred to provide insight into specific gender-level differences in perpetration by tactic. Individual items assessing all tactics appear in Table 3 by category.

To address the previously discussed, often ambiguous matter of consent, each item included a clause suggesting non-consent of the partner. The following sample clauses were adopted from Zurbriggen (2000, p. 565), but adjusted for grammar, when needed.

- ...when he/she acted like he/she didn't want to have sex with me.
- ...because I thought it would be easier to get them to do what I wanted sexually.
- ...in order to reduce his/her ability to resist my sexual advances.
- ...when they wouldn't have sex with me.
- ...when they weren't giving me the sexual response I wanted.

Others were similarly adapted to logically fit the tactic, for example, "...because he/she wouldn't put up as much resistance" fits tactics involving exploiting already intoxicated targets.

2.3.4 Conceptualizing Sexual Coercion Perpetration – Level of Coercion

Level of Coercion reflects the extent to which perpetrators used tactics within each category. For example, coercers may differ by the number of tactics they have used within a category of coercion. It is possible that an enticement coercer could use only one tactic, for example, he/she only using strip teases to arouse their partners into acquiescence. Another enticement coercer could use of all 6 enticements tactics, demonstrating a higher proficiency or mastery of this category of perpetration.

Thus, within each category, perpetrators could commit between "0" and "6" tactics. The research questions that can be answered using this coding reflect how greater mastery of coercion may relate with other factors. In "Level of Coercion", sums of tactics committed by category were computed. However, distributions of coercion level were skewed (please see the raw Crosstabs of perpetration in Table 6). The numbers of individual reporting the use of more tactics became increasingly small. Thus, higher levels of perpetration reflect collapsed categories. Given the treatment of the sexual coercion perpetration variable, alphas were not computed.

Table 6. Raw Observed Frequencies within Levels of Coercion by Gender by Category

		Frequencies (%) within Levels of Coercion						
Category by Gender		0	1	2	3	4	5	6
Enticement								
	Males	19 (18.8%)	21 (20.8%)	20 (19.8%)	19 (18.8%)	14 (13.9%)	5 (5.0%)	3 (3.0%)
	Females	68 (40.5%)	30 (17.9%)	32 (19.0%)	15 (8.9%)	14 (8.3%)	7 (4.2%)	2 (1.2%)
Emotional Manipulation								
	Males	33 (32.7%)	37 (36.6%)	15 (14.9%)	5 (5.0%)	6 (5.9%)	2 (2.0%)	3 (3.0%)
	Females	105 (62.5%)	34 (20.2%)	18 (10.7%)	5 (3.0%)	4 (2.4%)	1 (0.6%)	1 (0.6%)
Exploitation								
	Males	64 (63.4%)	18 (17.8%)	9 (8.9%)	8 (7.9%)	1 (1.0%)	1 (1.0%)	0 (0.0%)
	Females	132 (78.6%)	26 (15.5%)	7 (4.2%)	3 (1.8%)	0 (0.0%)	0 (0.0%)	0 (0.0%)

Note. “0” Level are considered non-coercers. Other Levels represent the number of tactics the perpetrator reported. For example, Level 3 coercers used 3 tactics within that category.

2.3.5.1 Enticement Tactics

Enticement tactics were measured to reflect behaviors in which an individual attempted to increase the physical arousal of the target to reduce his/her resistance to sexual activity. A sample item in the enticement category read, “I continued to kiss and touch someone’s body (not his or her genitals) when they acted like he/she didn’t want to have sex with me.” Enticement Coercion level needed to be recoded due to a skewed distribution. The original distribution can be found in Table 7. The Recoded Enticement Coercion level variable includes four categories.

The category “0” reflects those who did not use any Enticement tactics. The category “1” reflects those who used only 1 tactic of Enticement coercion. The category “2” includes those who used 2 or 3 Enticement Coercion tactics. And the category “3” reflects the highest level of perpetration, including those who committed 4 or more Enticement coercion tactics. Categories were constructed by attempts to approximate a minimum of 20 participants per cell by gender. Observed frequencies within constructed levels of Enticement Coercion appear in Table 8.

2.3.4.2 Emotional Manipulation (EM)

Enticement tactics assessed attempts to coerce targets by inducing feelings (e.g., guilt, love) that would reduce a target's resistance to sexual activity. A sample item in the EM scale is, “I gave someone the silent treatment when they wouldn’t have sex with me.”

Level of EM Coercion needed to be recoded due to a skewed distribution. The original distribution can be found in Table 6. Recoded EM Coercion level includes four categories. The category “0” reflects those who did not use any EM tactics. The category “1” reflects those who used only 1 tactic of EM coercion. The category “2” includes those who used 2 EM tactics. And the category “3” reflects the highest level of perpetration, including those who committed 3 or more EM tactics. Categories were constructed by attempts to approximate a minimum of 20 participants per cell by gender. Observed frequencies within constructed levels of Emotional Manipulation Coercion appear in Table 7.

2.3.4.3 Exploitation (EX)

Exploitation tactics gathered frequencies of Ps attempts to coerce targets by reducing their perceived capacity to provide willful consent through exertion of authority or influence,

including the use of alcohol and drugs. As mentioned earlier, this category excludes any use of force. For example, an exploitation item is, “I took advantage of someone who'd already been drinking because he/she wouldn't put up as much resistance.”

EX Coercion level needed to be recoded due to a skewed distribution. The original distribution can be found in Table 7. Recoded EX Coercion level includes four categories. The category “0” reflects those who did not use any EX tactics. The category “1” reflects those who used only 1 tactic of EX coercion. The category “2” reflects the highest level of perpetration, including those who committed 2 or more EX tactics. Categories were constructed by attempts to approximate a minimum of 20 participants per cell by gender. Observed frequencies within constructed levels of Exploitation Coercion appear in Table 7.

Table 7. Observed Frequencies within Recoded Levels of Coercion by Gender and by Category

Frequencies (%) within Levels of Coercion				
Category by Gender	0	1	2	3
Enticement				
Males	19 (18.8%)	21 (19.8%)	39 (38.6%)	22 (21.8%)
Females	68 (40.5%)	30 (17.9%)	47 (28.0%)	23 (22.8%)
Emotional Manipulation				
Males	33 (32.7%)	37 (36.6%)	15 (14.9%)	16 (15.8%)
Females	105 (62.5%)	34 (20.2%)	18 (10.7%)	11 (6.5%)
Exploitation				
Males	64 (63.4%)	18 (17.8%)	19 (18.8%)	-
Females	132 (78.6%)	26 (15.5%)	10 (6.0%)	-

Note. “Level 0” are considered non-coercers and “Level 1” coercers used 1 tactic. In Enticement Coercion, “Level 2” reflects use of 2 or 3 tactics and “Level 3” reflects use of 4 or more tactics. In Emotional Manipulation, “Level 2” reflects the use of 2 tactics and “Level 3” reflects the use of 3 or more tactics. In Exploitation, “Level 2” reflects the use of 2 or more tactics.

2.3.5 Behavioral Validity Items

To assess behavioral validity of the AIR Love scales, the following items appeared on the survey. All items were answered using the options: “Never”, “1 or 2 times”, “3 or 4 times”, “5 or 6 times”, or “7 or more times”.

How many times in the past 6 months have you purposefully searched for and “easy” potential sexual or romantic partner?

How many times do you recall starting a conversation with a romantic partner where you “defined rules” for that relationship since age 16?

How many times since the age of 16 have you been “head over heels in love”?

How many times since the age of 16 have you initiated a discussion asking your partner to “show more feeling”?

2.3.6 Love Attitudes Scales (LAS) – Mania and Ludus

Ps were asked to rate the extent to which each item was self-descriptive with regard to their ideal relationship (to correlate with other measures of this study and to address ideals as opposed to his/her current relationships). Agreement with manic and ludic attitudes was measured using a 5-point scale (1 to 5) ranging from “Strongly Disagree” to “Strongly Agree” (see Appendix C). Mania and Ludus scales have demonstrated acceptable internal reliability in previous studies, .73 and .76, respectively, and have been validated with college samples in previous studies (Hendrick & Hendrick, 1986). In this study, the 7-item Ludus scale demonstrated acceptable internal reliability ($\alpha = .73$) and the 6-item Mania scale was found to be minimally acceptable ($\alpha = .68$). One item from the original Mania scale was erroneously omitted from the survey, and thus not captured. That item was “If my lover ignores me for a while, I sometimes do stupid things to get his/her attention back”. Ludic and manic scale means were computed and used to validate AIR Love Scales, as summarized in the following section.

3.0 RESULTS

First, descriptive analyses describe the study sample by gender. Then validity of the AIR Love scales is discussed. Following this, a brief overview of the analyses used to test the main study hypotheses is presented. Then, analyses are presented by categories of sexual coercion. First results of Enticement perpetration are presented, followed by results for Emotional Manipulation and Exploitation Coercion. All analyses control for gender unless otherwise stated.

3.1 DESCRIPTIVE DATA

3.1.1 Demographic and Relationship Variables

A total of 101 males and 168 females remained after the sample was adjusted to include only heterosexual, sexually active, single or dating participants. A one-way MANOVA by gender was done for these 5 variables as dependent variables: age, relationship length, religious attendance, urban residency, and prior victimization). The effect of gender was not significant at the multivariate level, ($\Lambda = .03$), $F(5, 255) = 1.37$, $p = .24$.

No gender-related differences were found in participants' ages, $F(1, 261) = 0.07$, $p = .79$, or relationship length, $F(1, 259) = 0.47$, $p = .50$. Males' ages ranged from 18 to 24 ($M = 19.05$, $SD = 1.21$) and females' ages ranged from 18 to 23 ($M = 19.01$, $SD = 1.06$). On average, females reported a relationship length of 3.77 months ($SD = 3.89$). Males reported an average relationship length of 3.37 months ($SD = 3.94$).

On average, the frequency of participants' religious attendance did not differ by gender, $F(1, 259) = 2.08, p = .15$. Males and females attended religious services between annually and once per month or less ($M_{Males} = 1.43, SD_{Males} = 1.03$; $M_{Females} = 1.63, SD_{Males} = 1.04$), on average. As described previously, the majority of the sample attended religious services either annually or monthly.

More than half of the participants never lived in an urban area before moving to Pittsburgh to attend college. Males, on average, lived in an urban location 2.47($SD = 3.71$) years. Females lived in an urban location 2.14($SD = 3.43$) years before attending college. This difference was not significant, $F(1, 259) = 0.28, p = .60$.

A difference in Maximum Prior Victimization approached significance between genders. Females report having been victims of sexual coercion at marginally higher rates than did males, $F(1, 259) = 3.80, p = .05$. On average, females reported that their highest rate of prior victimization was greater than "sometimes" ($M = 3.20, SD = 1.06$). Compared to females, males reported lower rates of maximum prior victimization, on average ($M = 2.94, SD = 1.12$).

To examine gender-related differences in frequency level demographic and relationship variables, χ^2 -analyses were conducted. Proportions of participants that were Caucasian/White, African-Americans, or Asians nearly differed statistically by gender, $\chi^2(2) = 5.78, p = .06$ (Native American/Alaskan Native participants were excluded from χ^2 -analyses due to insufficient cell size, $n = 3$). Given this marginal difference, race was examined as a possible covariate in later analyses. As only 2.0% of males and 1.2% of females were Hispanic/Latino(a), gender differences were not examined in ethnicity due to small cell sizes. Males and females did not differ in dating status, $\chi^2(1) = 0.44, p > .05$. Most males (58.4%) and females (62.5%) were

currently dating someone. The remainder of the participants reported their dating status as “single”. A summary of demographic and relationship variables can be found in Table 8.

Table 8. Demographic and Relationship Variables by Gender

	Means (SD)	
	Males (<i>n</i> = 101)	Females (<i>n</i> = 168)
Age	19.02 (1.22)	19.03 (1.06)
Religiosity	1.43 (1.03)	1.63 (1.04)
Urban Residency	2.47 (3.71)	2.14 (3.43)
Relationship Length	3.37 (3.94)	3.77 (3.89)
Maximum Prior Victimization [°]	2.94 (1.12)	3.20 (1.06)
	Percentage (<i>n</i>)	
	Males (<i>n</i> = 101)	Females (<i>n</i> = 168)
Race [°]		
Caucasian/White	83% (84)	84% (141)
African-American/Black	12% (12)	05% (8)
Asian	05% (5)	09% (15)
American Indian	00% (0)	02% (3)
Ethnicity		
Hispanic	02% (2)	01% (2)
Non-Hispanic	98% (98)	99% (166)
Dating Status		
Not Dating	42% (42)	38% (63)
Currently Dating	58% (59)	63% (105)

Note. Means may be based on smaller sample sizes due to pairwise deletion of data. [°]Gender differences are marginally significant, $p < .10$. Age is reported in years and Relationship length in months. Religiosity mean responses range from 1 = Never to 5 = More than once per week. Urban residency mean responses range from 0 = Never lived in an urban location before attending University to 9 = 17 years or more spent in an urban location before moving to University. Maximum prior victimization was measured using a scale ranging from 1 = Never to 5 = Very Often.

3.1.2 Endorsements of AIR and LAS Love and Frequency of Behaviors used to Assess Validity of AIR Love Scales

This set of descriptive analyses includes the first set of study hypotheses. It was predicted that males would endorse Control and GP more favorably than females. In the opposite direction, it was predicted that females would endorse Reciprocity and EI more so than males. To test these hypotheses and describe the data, a one-way MANOVA examined Gender (Male vs. Female) differences in endorsement of Control, Game-Playing, Reciprocity, and Emotional Intensity, behaviors used for validity analyses, and LAS endorsements. Overall, gender did affect these self-reports; the Multivariate test was significant using Pillai's Trace ($\lambda = .16$), $F(4, 264) = 12.49$, $p < .001$. Univariate effects follow.

As predicted in Hypothesis CON 3, males' agreement with the Control scale was .25 points higher than females' agreement, on average, $F(1, 264) = 12.86$, $p < .001$. In support of the prediction made in GP 3, males endorsed GP .23 points higher than females, on average, $F(1, 264) = 8.63$, $p < .001$. Also as predicted in REC 3, females endorsed Reciprocity to a greater extent than males by .36 points, on average, $F(1, 264) = 34.49$, $p < .001$. As predicted in EI 3, females endorsed Emotional Intensity to a greater extent than males by .22 points, on average, $F(1, 264) = 7.72$, $p < .01$. Please see Table 9.

Table 9. AIR Love, LAS, and Behavioral Means by Gender

		Mean Score (SD)		<i>F</i> (1, 264)
		Males <i>n</i> = 101	Females <i>n</i> = 168	
AIR LOVE ^a	Control	2.70 (0.66)	2.45 (0.58)	12.86**
	Game-Play	3.07 (0.65)	2.84 (0.59)	8.63***
	Reciprocity	4.01 (0.50)	4.37 (0.47)	34.49***
	Emotional Intensity	3.54 (0.64)	3.76 (0.62)	7.72***
BEHAVIORS ^b	Searched for "easy" partner	2.04 (1.30)	1.37 (0.67)	30.64***
	Defined rules for relationship	1.87 (1.02)	2.16 (1.10)	4.47*
	Asked partner to "show more feeling"	1.76 (1.00)	2.27 (1.25)	11.86**
	Has been "head over heels" in love	1.88 (0.50)	1.88 (0.49)	0.01
LAS ^a	Ludus	2.58 (0.76)	2.28 (0.60)	23.41***
	Mania	2.56 (0.77)	2.94 (0.60)	16.67***

Note. Univariate *F* statistics differences in endorsement by gender. * $p < .05$., ** $p < .01$, *** $p < .001$. ^aResponse options (1 to 5) ranged from "Strongly Disagree" to "Strongly Agree", where the midpoint (3) reflected "Equally Disagree and Agree". ^bResponse options were "0" = Never, "1" = 1 or 2 times, "2" = 3 or 4 times, "3" = 5 or 6 times, and "4" = 7 or more times.

Males and females differed in their endorsements of LAS dimensions. Males endorsed LAS ludus to a greater extent than females, $M_{\text{Males}} = 2.58$ and $M_{\text{Females}} = 2.28$, $F(1, 264) = 22.43$, $p < .001$. Also as expected, females endorsed LAS mania to a greater extent than did males, $M_{\text{Males}} = 2.56$ and $M_{\text{Females}} = 2.94$, $F(1, 264) = 16.81$, $p < .001$.

Females reported more frequently engaging in two behaviors used for validity analyses. On average, females reported more frequently having defined rules for a previous relationship than males, $F(1, 264) = 4.47$, $p < .05$. On average, females reported initiating conversations to define the rules for their romantic relationships slightly more often than 1 or 2 times ($M = 2.16$,

$SD = 1.10$). Females also more frequently asked their partners to show more feelings, $F(1, 264) = 11.86, p < .01$. Females, also asked their partners to show more feeling in their relationships more than 1 or 2 times, on average ($M = 2.26, SD = 1.24$). On average, males reported initiating conversations to define the rules for their relationships less than 1 or 2 times ($M = 1.87, SD = 1.01$) and asking their partners to show more feeling less than 1 or 2 times ($M = 1.76, SD = 1.00$).

Males reported engaging in one behavior more frequently than did females. Males searched for “easy” romantic or sexual partner more frequently than did females. Males, on average, searched for “easy” sexual or romantic partner more than 1 or 2 times during the previous 6 months ($M = 2.04, SD = 1.30$). Females, however, reported purposefully searching for an “easy” sexual or romantic partner fewer than once or twice, in the previous 6 months. This difference was significant, $F(1, 264) = 30.64, p < .001$ ($M = 1.37, SD = 0.66$).

Males and females did not differ in their average reported frequency of having been “head over heels” in love, $F(1, 268) = 0.01, p > .05$. On average, males and females had been “head over heels” in love nearly once or twice ($M_{\text{Females}} = 1.89, SD_{\text{Females}} = 0.48; M_{\text{Males}} = 1.88, SD_{\text{Males}} = 0.50$).

3.1.3 Perpetration of Sexual Coercion by Gender

3.1.3.1 Level of Coercion

Enticement Coercion “Level 0” was assigned to participants who did not report the use of any Enticement Tactics. “Level 1” Enticement Coercers used 1 Enticement tactic. Level “2” Enticement Coercers used 2 or 3 tactics. “Level 3” Enticement Coercers used 4 or more Enticement tactics. To examine overall gender differences in the level of sexual coercion perpetration by gender, three Pearson’s one-way Chi-Squares were calculated. Separate Chi-

Squares were calculated for perpetration levels within each type of sexual coercion: Enticement, Emotional Manipulation, and Exploitation.

Within Enticement coercion, observed frequencies of coercion level differed by gender, $\chi^2(3) = 14.14, p < .05$. Fewer males but more females were Enticement non-coercers (i.e., they used 0 Enticement tactics). More males and fewer females were “Level 1”, “Level 2”, and “Level 3” Enticement Coercers.

Emotional Manipulation (EM) Coercion “Level 0” was assigned to participants (Ps) who did not report the use of any EM tactics. Those reporting use of 1 EM tactic were considered “Level 1” and those using 2 EM tactics were considered “Level 2”. Participants who used 3 or more EM tactics were considered “Level 3” Coercers. Within EM, observed frequencies of perpetration levels also differed by gender, $\chi^2(3) = 23.67, p < .001$. Fewer males and more females were Emotional Manipulation non-coercers. More males were considered “Level 1”, “Level 2” and “Level 3” EM Coercers.

Some participants did not report use of EX tactics, they were considered “Level 0” or Non-Coercers. Those reporting use of 1 EX tactic were “Level 1” Perpetrators. Those using 2 or more EX tactics “Level 2” Coercers. Within Exploitation, observed frequencies of Coercion Levels also differed by gender, $\chi^2(2) = 11.89, p < .01$. Consistent with patterns for Enticement Coercion Level and EM Coercion level, females were more likely to be considered non-coercers than were males. Also consistent with previous patterns, more males and fewer females were considered “Level 1” and “Level 2” Coercers. Please see Table 10 for a summary of observed frequencies by sexual coercion perpetration level by category and gender.

Table 10. Gender differences in perpetration level of college males and females

Perpetration Level	Gender	Enticement		Emotional Manipulation		Exploitation	
		<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
“0”	M	19	18.8	33	32.7	64	63.4
	F	68	40.5	105	62.5	132	78.6
“1”	M	21	20.8	37	36.6	18	17.8
	F	30	17.9	34	20.2	26	15.5
“2”	M	39	38.6	15	14.9	19	18.8
	F	47	28.0	18	10.7	10	6.0
“3”	M	22	21.8	16	15.8	--	--
	F	23	13.7	11	6.5	--	--
$\chi^2(df)$		14.14**(3)		23.67***(3)		11.89**(2)	

Note. Perpetration level “0” and “1” reflect the use of 0 or 1 tactics across all categories. Perpetration level “2” reflects the use of 2 or 3 tactics within Enticement, 2 tactics within Emotional Manipulation, and 2 or more tactics within Exploitation. Perpetration level “3” reflects the use of 4 or more tactics within Enticement and the use of 3 or more tactics within Emotional Manipulation.

3.1.3.2 Gender Differences in Dichotomous Coercion Status

Each of the three Level of Coercion variables was dichotomized in the event no effects were found. This would increase cell sizes and thus the power of the Coercion variable as an independent measure. Looking at how women and men responded to these measures, three Pearson's one-way Chi-Squares were conducted to examine gender differences (Male vs. Female) across Coercion Status (Coercer vs. Non-Coercer) for Enticement, Emotional Manipulation, and Exploitation. A significantly higher proportion of males perpetrated acts of coercion than females across all categories of coercion: Enticement, $\chi^2(1) = 13.53, p < .001$, Emotional Manipulation, $\chi^2(1) = 22.46, p < .001$, and Exploitation, $\chi^2(1) = 22.46, p < .01$ (see Table 11).

Table 11. Gender differences in perpetration status of college males ($N = 101$) and females ($N = 168$)

Any one or more tactic in....	Males Coercers		Females Coercers		$\chi^2(1)$
	<i>n</i>	%	<i>n</i>	%	
Enticement	82	81.2	100	59.5	13.53***
Emotional Manipulation	68	67.3	63	37.5	22.46***
Exploitation	37	36.6	36	21.4	7.38**

3.1.4 Demographic and Relationship Measures' Relationships with Independent and Dependent Measures

To examine the relationship between the demographic variables above and both the independent and dependent measures in this study, correlations were calculated. Correlations in Table 12 were not separated by gender, but gender was included in the correlational matrix.

Table 12. Correlations of Demographic Variables with Independent and Dependent Variables

Dependent Variables	Correlations							
	Age	Relig- iosity	Urban Resi- dency	Relation -ship Length	Dating Status	Race	Eth- nicity	Prior Victim -ization
Control Scale	-.05	.05	.05	.04	.09	-.04	-.05	.11
Game-Playing Scale	-.20**	.09	.08	-.12*	-.01	.07	-.01	.02
Reciprocity Scale	-.07	.07	-.02	.04	-.05	.09	.01	.08
Emotional Intensity Scale	.02	-.02	.00	.04	.00	.02	.09	.09
Independent Variables								
Gender	-.17	.10	-.05	.05	.04	-.06	-.03	.12
Level of Enticement Coercion	-.21**	-.01	.29*	.17**	.16*	-.06	.02	.12
Level of EM Coercion	.03	-.07	.01	-.05	.01	.06	-.01	.21**
Level of EX Coercion	.01	-.01	.04	-.10	-.06	.03	-.02	.20**

Note. Significance is two-tailed. * $p < .05$, ** $p < .01$.

Some demographic and relationship variables related to Game-Playing and Levels of Coercion. Higher values for participants' age and relationship length were significantly related to lower endorsements of Game-Playing. Higher values for participants' age was related to lower levels of Enticement Coercion. Living in an urban location for a longer period of time, being involved in a relationship longer, and current "dating" status were all related to higher levels of Enticement Coercion. Also, reported maximum frequency of victimization was related to higher reported level of EM Coercion and EX Coercion. Thus, before conducting each MANCOVA testing main study hypotheses, these variables were assessed as possible covariates (i.e. age, relationship length, prior urban residency, dating status, and maximum prior victimization). Because race was marginally different by gender, it was also tested for significance. Dummy variable were created to reflect White versus Minority Status (i.e. all other races) and Black versus all other races. Significant covariates (i.e., age and relationship length) were retained and are described in the final MANCOVA analyses.

3.2 VALIDITY ANALYSIS

To establish validity, two types of analyses were done. A Pearson's product-moment correlational matrix was calculated (see Table 13) to test validity hypotheses. AIR Love scales means, LAS Ludus and Mania scale means, and behavioral validity items were entered into one matrix. Then, correlations for males and females were compared to examine possible gender differences in these relationship. When there were gender differences, data were presented. The relationships did not differ between males and females for other variables.

To establish behavioral validity, as discussed previously, the following predictions were made for each of the AIR Love scales. Males' and females' higher mean endorsements of the:

1. Control scale would relate with more attempts to seek “easy” potential sexual or romantic partners (as stated in Hypothesis CON 2) ,
2. Game-Playing scale would relate with initiating more conversations that “defined rules” for their relationships with their partners (as stated in Hypothesis GP 2),
3. Reciprocity scale would be related to the number of times they had asked their partners to show more feeling (as stated in Hypothesis REC 2), and
4. Emotional Intensity scale would relate to the number of times they had been “head over heels” in love with someone (as stated in Hypothesis EI 2).

To establish construct validity with existing scales, AIR Love scales were predicted to relate to Love Attitude Scales (LAS). In Hypotheses CON1 and GP 1, it was predicted that Control and GP scale means would positively relate to LAS Ludus means. In Hypotheses REC 1 and EI 1, Reciprocity and EI were predicted to positively relate to LAS Mania means.

Correlations to assess validity for the AIR scales were computed separately for women and men to examine possible gender related differences in behavioral validity. Endorsement of control was positively related to efforts at searching for “easy” partners for males, $r = .26, p < .01$, but not for females, $r = .08, p > .05$. Endorsement of reciprocity was related to asking partners to “show more feeling” for females, $r_{\text{Females}} = .18, p < .05$, but not for males, $r_{\text{Males}} = -.04, p > .05$. EI was only marginally the number of times Ps reported having been “head over heels” in love with someone for males and females, $r_{\text{Males}} = .13$ and $r_{\text{Females}} = .13, p < .10$. However, GP did not relate with the number of times individuals reportedly “defined rules” for relationships for males or females, $r_{\text{Males}} = .05$ and $r_{\text{Females}} = .06, p > .05$.

Another set of correlations were done to determine if the new love scales related to typical scale measures used to assess Lee’s lovestyles from which there were generated. These results were as predicted, except for the relationship between mania and the new reciprocity measure. Ludus scale means were positively related to both Control for males and females, $r_{\text{Males}} = .43, p < .001$ and $r_{\text{Females}} = .17, p < .05$. The relationship between endorsement of ludus and Control was stronger for males, $z = 2.26, p < .05$ (2-tailed). Game-Playing was also positively

related with ludic endorsement for males and females, $r_{\text{Males}} = .21, p < .05$ and $r_{\text{Females}} = .19, p < .01$. Mania was related to EI for both males and females, $r_{\text{Males}} = .31, p < .01$ and $r_{\text{Females}} = .39, p < .001$. However, endorsement of Mania did not relate to endorsement of Reciprocity for either gender, $r_{\text{Males}} = .15, p = .32$ and $r_{\text{Females}} = .11, p = .23$.

Table 13. Pearson's Correlations by Gender Used for Validity Assessment

		1	2	3	4	5	6	7	8
AIR Love	1. Control	-	.26**	-.17*	-.17*	.26**	.13	.16	.10
	2. Game-Play	.41***	-	.33***	.21*	.18*	.05	.01	.02
	3. Reciprocity	-.19***	-.17*	-	.60***	.05	.02	-.04	.01
	4. Emotional Intensity	-.23**	-.01	.65***	-	-.12	-.06	.07	.13°
Behaviors	5. Searched "easy" partner ^a	.08	-.05	.02	-.03	-	.19	.19	-.04
	6. Defined rules ^b	.14*	.06	-.10°	.06	.05	-	.12	-.07
	7. Asked partner to "show more feeling" ^c	.06	.02	.18*	.26**	-.01	.22**	-	.18
	8. "Head over heels" love ^d	.19*	.10	.02	.13°	-.13	.17*	.16*	-
Males	LAS Ludus	.43***	.21*	-.18*	-.33***	.49***	.04	-.03	.05
	LAS Mania	.01	.05	.15°	.31**	-.08	.03	.25**	.25*
Females	LAS Ludus	.17*	.19**	-.15*	-.23**	.31***	.05	-.03	-.02
	LAS Mania	.17*	.24**	.11°	.39***	-.05	.26***	.21**	.26***

Note. Pearson's correlations are 1-tailed. * $p < .05$, ** $p < .01$, *** $p < .001$. °marginally significant, $p < .10$. Shaded cells indicate predicted relationships. Males appear above the diagonal, females appear below the diagonal. Full items are: How many times...^a in the past 6 months have you purposefully searched for "easy" partner?, ^bhave you recalled starting a conversation to define the rules of the relationship since age 16?, ^csince age 16 have you asked your partner to "show more feeling", ^d since age 16 have you been "head over heels" in love?

Overall, three of the four AIR Love scales demonstrate construct validity. That is, for both males and females, Control, Game-Playing, and Emotional Intensity were related, as predicted to LAS scales. However, endorsement of Reciprocity was not related to endorsement of Mania for males or females. Behavioral validity was more tenuous. Game-playing demonstrated no behavioral validity, while the behavioral validity for Emotional Intensity was marginal. Other behavioral support was gender specific. Behavioral support for the Control scale only held for males. Behavioral support for Reciprocity was only established for females.

3.3 SUMMARY OF ANALYSES FOR MAIN STUDY HYPOTHESES

Testing the study hypotheses, Coercion level (levels vary) and Gender (Male vs. Female) were used to examine differences in AIR Love endorsement. Individuals varied by the number of tactics they committed within each category of sexual coercion. The minimum level of Coercion was 0 or Non-Coercer (used 0 tactics). The number of levels of Coercion varied for different tactics. The first MANCOVA assessed the impacts of Enticement Perpetration Level (0, 1, 2, 3) and Gender on AIR Love endorsement. The second MANCOVA examined the effects of Emotional Manipulation Coercion Level (0,1,2,3) and Gender on AIR Love endorsement. The third MANCOVA examined effects of Exploitation Coercion Level (0, 1, 2) and Gender on endorsement of AIR Love. Gender X Coercion Level Interactions were entered in all analyses.

Covariates were determined by conducting a correlational matrix of all demographic and relationship variables with the independent and dependent measures (see Table 13). Variables that significantly correlated to IVs or DVs of each MANOVA were included in initial analyses to explore their possibilities as control variables (i.e. age, relationship length, prior urban residency,

dating status, maximum prior victimization, a White/Non-White race dummy variable, and a Black/Non-Black race dummy variable). Those that were significant at the multivariate level were retained. Then, MANCOVAs were conducted including only significant covariates (i.e. age and or relationship status). Those analyses are the only analyses reported. Interactions of Gender X Perpetration Level were entered into each model. Group variances were found to not be equal across groups, thus, Pillia's F is reported in all analyses, as is the Pillia's Trace statistic (λ), which is equitable to η .

Follow-up ANCOVAs were conducted when multivariate significance was found. When follow-up univariate significance was found, pairwise comparisons were conducted and adjusted using the Bonferroni method for correction of alpha significance. The Bonferroni correction widens the confidence intervals to adjust for the number of comparisons made within the same set of analyses, decreasing the likelihood of falsely detecting significance (described by Dunn, 1959).

In another set of analyses conducted to increase statistical power to detect effects, 3 MANCOVAs examined the effects of Perpetrator status (Coercer vs. Non-Coercer) and Gender (Male vs. Female) on endorsements of AIR Love. That is, analyses compare those who have never committed any tactic to those who have at least once committed one or more tactic(s). The first MANCOVA in this set examined Enticement Perpetrator status. The second and third assessed the effects of Emotional Manipulation and Exploitation Perpetrator status. Demographic and relationship variables were controlled for in some analyses. Group variances were found to differ across groups, thus Pillia's F was used for all significance reporting. Pillia's Trace (λ) is reported, which is equitable to η . When post-hocs are conducted, the comparisons are adjusted using the Bonferroni method.

3.4 EFFECTS OF LEVEL OF ENTICEMENT COERCION ON AIR LOVE ENDORSEMENT

It was predicted that, after controlling for the effects of age and relationship length, that: Enticement Coercion Level would affect endorsements of (1) Game-Playing (Hypothesis ENT 1), (2) Reciprocity (Hypothesis ENT 3), and (3) Emotional Intensity (Hypothesis ENT 4). In a Gender X Enticement Coercion Level prediction, it was expected that males reporting higher levels of Enticement Coercion would report higher endorsement of Game-Playing than females reporting higher levels of Enticement Coercion (see Hypothesis ENT 2). In a Gender X Enticement Coercion Level prediction, it was expected that females reporting higher levels of Enticement Coercion would report higher endorsement of Reciprocity than males reporting higher levels of Enticement Coercion (see Hypothesis ENT 5). To examine these predictions, a 2-Gender (Male vs. Female) X 4-Enticement Perpetration Level (0,1,2,3) MANCOVA was conducted exploring differences in the endorsement of Control, GP, Reciprocity, and EI. Covariates were added as described earlier. Enticement Perpetration “Level 0” was assigned to participants who did not report the use of any Enticement Tactics. Those reporting use of 1 Enticement tactic were considered “Level 1” Coercers. Those using either 2 or 3 Enticement tactics were coded as “Level 2” Coercers. Ps who used 4 or more Enticement tactics were “Level 3” Coercers. The Gender X Level of Enticement Coercion interaction effect was also included in the model.

As seen in Table 14, main effects for Gender and Level of Enticement Coercion were found at the multivariate level. Level of Enticement Coercion affected endorsement of AIR love, $F(12,756) = 2.06, p < .05$. Consistent with previous findings, significant main effects for gender

existed at the multivariate level, $F(4,250) = 7.92, p < .001$. Age was a significant covariate, $F(4,250) = 2.93, p < .05$.

Table 14. Multivariate effects of Level of Enticement Coercion and Gender on AIR Love

Source (Hypothesis df, Error df)	<i>Multivariate Effects</i>		
	<i>F</i>	<i>Λ</i>	<i>p</i>
Gender (4, 250)	7.92	.11	.000
Level of Enticement Coercion (12, 756)	2.06	.10	.017
Gender X Level of Enticement Coercion (12, 756)	0.70	.03	.749
Age (4, 250)	2.93	.05	.022

Note. DVs are Control, Game-Playing, Reciprocity and Emotional Intensity.
Shaded regions are significant effects.

To explore possible effects in support of predictions, univariate ANCOVAs were conducted, controlling for the effect of age. Univariate analyses investigated differences in AIR Love endorsements by age and found an effect only for Game-Playing but age was maintained as a covariate in all the univariate tests. As can be seen in Table 15, mean endorsement of Control was marginally different across Levels of Enticement Coercion, $F(3, 253) = 2.29, p < .10$. The trend of means is described next given the unpredicted marginal effect of control.

Table 15. Univariate effects of Level of Enticement Coercion and Gender on AIR

Love

Source (Hypothesis df, Error df)	<i>F</i> -statistic			
	<i>Control</i>	<i>Game-Playing</i>	<i>Reciprocity</i>	<i>Emotional Intensity</i>
Gender (1, 253)	9.91**	10.64**	18.33***	9.53**
Level of Enticement Coercion (3, 253)	2.29°	1.42	1.57	0.83
Gender X Level of Enticement Coercion (3, 253)	.049	1.43	0.15	0.32
Age (1, 253)	0.82	10.01**	0.45	0.08

Note. * $p < .05$, ** $p < .01$, *** $p < .001$, ° $p < .10$. Effects are controlled for age.

Table 16 displays the patterns of base means and adjusted means, controlling for age, by gender and Enticement Coercion Level. These means illustrate the marginally significant effect of Enticement Coercion Level on endorsement of Control, as an aspect of idealized romantic love. All participants reported means between “Disagree” and “Equally Agree and Disagree”, when controlling for age. Non-coercers reported a mean endorsement of 2.44 ($SD = .08$), which reflects endorsement closer to “Disagree” on the rating scale for AIR Love. At the highest level of Coercion, Enticement Coercers that used 4 or more tactics reported a mean endorsement of 2.70 ($SD = .09$). The difference in Control endorsement between Non-Coercers and those using 4 or more tactics was only marginal, $p = .21$.

Table 16. Base and Adjusted Means Examining the Effects of Gender and Level of Enticement Coercion on Endorsement of AIR Love

Effects of Level of Enticement Coercion									
Scale	<i>F</i> (3, 253)	Base Means (SD)				Adjusted Means (SE)			
		Non-Coercers	Used 1	Used 2 or 3	Used 4 +	Non-Coercers	Used 1	Used 2 or 3	Used 4 +
Control	2.29 [*]	2.35 (.62)	2.47 (.53)	2.63 (.66)	2.69 (.59)	2.44 (.08)	2.48 (.09)	2.64 (.07)	2.70 (.09)
Game-Playing	1.42	2.83 (.63)	2.99 (.56)	2.89 (.56)	3.07 (.76)	2.85 (.08)	3.02 (.09)	2.91 (.07)	3.07 (.09)
Reciprocity	1.57	4.31 (.55)	4.24 (.48)	4.05 (.80)	4.22 (.56)	4.22 (.08)	4.21 (.09)	4.03 (.07)	4.22 (.09)
Emotional Intensity	0.83	3.64 (.61)	3.75 (.59)	3.72 (.67)	3.73 (.58)	3.57 (.08)	3.72 (.09)	3.71 (.07)	3.73 (.09)
Effects of Gender									
Scale	<i>F</i> (1, 253)	Base Means (SD)		Adjusted Means (SE)					
		Males	Females	Males	Females				
Control	9.91**	2.71 (.66)	2.40 (.57)	2.69 (.06) ^a	2.44 (.05) ^a				
Game-Playing	10.64**	3.07 (.65)	2.83 (.58)	3.10 (.06) ^b	2.83 (.05) ^b				
Reciprocity	18.33***	3.96 (.62)	4.34 (.60)	3.99 (.06) ^c	4.35 (.05) ^c				
Emotional Intensity	9.53**	3.56 (.63)	3.79 (.59)	3.56 (.06) ^d	3.81 (.05) ^d				

Note. Significant differences are marked in adjusted means only, ^{a-d} denote significant differences between pairs. * $p < .05$, ** $p < .01$, *** $p < .001$, [†] $p < .10$. Effects control for Age. The Bonferroni adjustment was used in post-hoc comparisons. Scale ranges from 1 = Strongly Disagree to 5 = Strongly Agree.

In efforts to increase statistical power, the independent variable of coercion was dichotomized into Coercers and non-Coercers (i.e., Levels 1-4 were collapsed); still, the unanticipated main effect for Control remained marginal, $p = .057$. Against predictions, no other main effects for Level of Enticement Coercion or Gender X Level of Enticement Coercion emerged in either set of analyses. However, consistent with earlier findings, endorsement of AIR love differed by gender at the univariate level, with age controlled.

3.5 EFFECTS OF LEVEL OF EMOTIONAL MANIPULATION COERCION ON AIR LOVE ENDORSEMENT

It was predicted that, after controlling for the effects of relationship length and age, Level of Emotional Manipulation Coercion would affect endorsements of (1) Control (Hypothesis EM 1), (2) GP (Hypothesis EM 2), and (3) Reciprocity (Hypothesis EM 4). In a Gender X Level of Emotional Manipulation prediction, in Hypothesis EM 3, it was hypothesized that male EMs would report higher endorsement of Game-Playing than Emotionally Manipulative females. In Hypothesis EM 5, it was predicted that female EMs would report higher endorsement of Reciprocity than male Emotional Manipulators. To examine these predictions, a 2-Gender (Male vs. Female) X 4-Level of Emotional Manipulation Coercion (0,1,2,3) MANCOVA was conducted exploring differences in the endorsement of Control, GP, and Reciprocity. Emotional Manipulation Perpetration Level category “0” was assigned to participants (Ps) who did not report the use of any EM tactics. Those reporting use of 1 EM tactic were assigned to the category “1”. Those using 2 EM tactics were coded “2”. Ps who used 3 or more Emotional Manipulation tactics were assigned to category “3”.

The covariates of age and relationship length were retained in the final model. Age significantly related to AIR Love endorsement, $F(4,249) = 3.96, p < .01$. Univariate analyses found that age significantly affected Game-Playing endorsements only. Relationship length was significantly related to AIR Love endorsement at a multivariate level, $F(4,149) = 2.60, p < .05$ and to Game-Playing at the univariate level.

As seen in Table 17, main effects for Gender and Level of Emotional Manipulation Coercion were found at the multivariate level. Level of Emotional Manipulation Coercion related

to AIR love endorsements, $F(12, 753) = 3.07, p < .001$. Consistent with previous findings, significant main effects for gender were found, $F(4, 249) = 5.98, p < .001$.

Results did not support any Gender X Level of Emotional Manipulation Coercion interactions, $F(12, 753) = 1.01, p > .05$. Within Level of Emotional Manipulation Coercion, there was no evidence to suggest that male Emotional Manipulators reported higher endorsement of GP than female EMs. . There was also no evidence to support the prediction that female Emotional Manipulators endorsed Reciprocity to a greater extent than EM males.

Endorsement of AIR Love related to participants' Levels of Emotional Manipulation Coercion. Univariate analyses were conducted to assess support for the predictions that males

Table 17. Multivariate Effects of Level of Emotional Manipulation Coercion and Gender on AIR Love

Source (Hypothesis df, Error df)	<i>Multivariate Effects</i>		
	<i>F</i>	<i>Λ</i>	<i>p</i>
Gender (4, 249)	5.98	.09	.000
Level of Emotional Manipulation Coercion (12, 756)	2.06	.10	.017
Gender X Level of Emotional Manipulation Coercion (12, 756)	1.01	.05	.440
Age (4, 249)	3.96	.06	.004
Relationship Length	2.60	.04	.037

Note. DVs are Control, Game-Playing, Reciprocity and Emotional Intensity. Controls are age and relationship length. Shaded regions are significant effects.

with higher Levels of Emotional Manipulation Coercion would report higher endorsement of (1) Control, (2) GP, and (3) Reciprocity, compared with those reporting lower Levels of Emotional Manipulation Coercion. As can be seen in the means Table 18, Hypotheses EM 1 and EM 2 were supported. Level of Emotional Manipulation Coercion significantly affected endorsement of

Control, $F(1, 252) = 8.87, p < .001$, and Game-Playing, $F(1, 252) = 2.94, p < .05$. Table 19 presents the base and adjustment means for AIR Love endorsements by Gender and Level of Emotional Manipulation Coercion. Control and Game-Playing endorsement varied across level of Emotional Manipulation Coercion. Those who reported using more EM tactics, reported higher endorsements of Control than those using fewer tactics. Similarly, those using EM tactics reported higher endorsements of Game-Playing, on average, than did non-EM coercers. Consistent with results for Level of Enticement Coercion, Level of Emotional Manipulation Coercion did not affect endorsement of Reciprocity, against prediction, $F(1, 252) = 0.48, p > .05$. Gender significantly affected endorsement of all AIR Love scales.

Table 18. Univariate effects of Gender and Level of Emotional Manipulation(EM) Coercion on AIR Love Endorsement

Source (Hypothesis df, Error df)	<i>F</i> -statistic			
	<i>Control</i>	<i>Game-Playing</i>	<i>Reciprocity</i>	<i>Emotional Intensity</i>
Gender (1, 253)	8.41**	5.41*	15.65***	6.86*
Level of EM Coercion (3, 253)	2.98***	1.03*	0.18	0.31
Gender X Level of EM Coercion (3, 253)	1.57	0.30	1.72	1.62
Age (1, 252)	2.01	13.31***	0.78	0.08
Relationship Length (1, 252)	0.90	4.18*	0.40	0.48

Note. * $p < .05$, ** $p < .01$, *** $p < .001$. Effects are controlled for age and relationship length.

Table 19 displays the significant differences by groups found using follow-up pairwise comparisons. Base means and adjusted marginal means (i.e. estimated means controlling for

covariates) can also be found in Table 19. Two significant group differences supported the prediction that higher level Emotional Manipulators will report higher endorsement of Control compared to lower level Emotional Manipulators. First, EMs that used 1 tactic report higher endorsement of control than non-EM-coercers. Also, EMS that used 3 or more tactics reported higher endorsement of control than non-EM-coercers.

Table 19. Base and Adjusted Means Examining the Effects of Gender and Level of Emotional Manipulation Coercion on Endorsement of AIR Love

Effects of Level of Emotional Manipulation Coercion									
Scale	<i>F</i> (3, 252)	Base Means (SD)				Adjusted Means (SE)			
		Non-Coercers	Used 1	Used 2	Used 3 or more	Non-Coercers	Used 1	Used 2	Used 3 or more
Control	8.87***	2.34 (.58)	2.63 (.58)	2.61 (.49)	3.06 (.78)	2.35 (.06) ^{ab}	2.62 (.07) ^a	2.62 (.10)	3.00 (.12) ^b
Game-Playing	2.94*	2.82 (.61)	3.06 (.57)	2.92 (.67)	3.10 (.66)	2.84 (.06) ^c	3.10 (.07) ^c	2.88 (.11)	3.06 (.13)
Reciprocity	0.48	4.27 (.59)	4.08 (.74)	4.19 (.59)	4.14 (.64)	4.22 (.06)	4.10 (.07)	4.16 (.11)	4.16 (.13)
Emotional Intensity	.085	3.66 (.56)	3.40 (.68)	3.70 (.66)	3.60 (.64)	3.67 (.06)	3.64 (.07)	3.85 (.11)	3.69 (.13)
Effects of Gender									
Scale	<i>F</i> (1, 252)	Base Means (SD)		Adjusted Means (SE)					
		Males	Females	Males	Females				
Control	8.41**	2.71 (.66)	2.40 (.57)	2.78 (.06) ^d	2.51 (.07) ^d				
Game-Playing	5.41*	3.07 (.65)	2.83 (.58)	3.08 (.07) ^e	2.86 (.07) ^e				
Reciprocity	15.65***	3.96 (.62)	4.34 (.60)	3.97 (.07) ^f	4.35 (.07) ^f				
Emotional Intensity	6.86**	3.56 (.63)	3.79 (.59)	3.59 (.07) ^g	3.84 (.07) ^g				

Note. Significant differences are marked in adjusted means only, ^{a-g} denote significant differences between pairs. * $p < .05$, ** $p < .01$, *** $p < .001$. Controls are Age and Relationship Length. The Bonferroni adjustment was used in post-hoc comparisons. Scale ranges from 1 = Strongly Disagree to 5 = Strongly Agree.

In exploratory analyses, collapsing coercers who used 2 or more tactics into one category in efforts to increase statistical power did not improve results. Also, treating Emotional Manipulation Perpetration as a dichotomous-level independent variable did not improve results.

3.6 EFFECTS OF LEVEL OF EXPLOITATION COERCION ON AIR LOVE ENDORSEMENT

In Hypothesis EX 1, it was predicted that: Level of Exploitation Coercion would affect endorsements of Control, where higher Level of Exploitation Coercers would report higher endorsement of Control than lower Level of Exploitation coercers. A 2-Gender (Males and Females) X 3 (0,1,2) Level of Exploitation Coercion MANCOVA was conducted exploring differences in the endorsement of AIR Love. Level of Exploitation Coercion “0” was assigned to participants who did not use any of the Exploitation tactics. Those reporting use of 1 Exploitation tactic were assigned to the category “1”. Those using 2 or more Exploitation tactics were coded “2”. Age retained as a covariate in the final model. Age significantly related to AIR Love endorsement, $F(4, 242) = 3.15, p < .05$. As seen in Table 20, only the main effect of Gender was significant at the multivariate level. Level of Emotional Manipulation Coercion was not related to AIR love endorsements, $F(8, 506) = 1.58, p > .05$. Results did indicate a marginal Gender X Level of Emotional Manipulation Coercion interaction, $F(8, 506) = 1.91, p > .10$. While the evidence does not suggest that Level of Exploitation Coercion directly effects endorsement of Control, there is evidence to suggest that Level of Exploitation Coercion and Gender interact upon the endorsement of control.

Table 20. Multivariate effects of Gender and Level of Exploitation Coercion on AIR Love

Source (Hypothesis df, Error df)	<i>Multivariate Effects</i>		
	<i>F</i>	<i>Λ</i>	<i>p</i>
Gender (4, 252)	2.81	.04	.026
Level of Exploitation Coercion (8, 506)	1.58	.05	.13
Gender X Level of Enticement Coercion (12, 756)	1.91	.06	.056
Age (4, 252)	3.15	.05	.015

Note. DVs are Control, Game-Playing, Reciprocity and Emotional Intensity.
Shaded regions are significant at $p < .05$.

Univariate analyses differ from previous results for gender and endorsement of Reciprocity (see Table 21). Endorsement of Control, Reciprocity, and Emotional Intensity were affected by Gender; however, Game-Playing was not. A marginal interaction occurred between Level of Exploitation Coercion and Gender upon the endorsement of Reciprocity, $F(2, 252) = 1.94, p = .056$. Univariate analyses found that age significantly affected Game-Playing endorsements only.

Table 21. Univariate Effects of Gender and Level of Exploitation Coercion on AIR Love

Source (Hypothesis df, Error df)	<i>F</i>			
	<i>Control</i>	<i>Game-Playing</i>	<i>Reciprocity</i>	<i>Emotional Intensity</i>
Gender (1, 253)	2.13*	0.71	1.83*	1.95*
Level of Exploitation Coercion (3, 253)	2.90*	1.86°	0.84	1.10
Gender X Level of Exploitation Coercion (3, 253)	0.13	1.26	1.94°	0.20
Age (1, 252)	0.36	3.50**	0.41	0.03

Note. * $p < .05$, ** $p < .01$, ° $p < .10$. Shaded regions represent effect protected by the preceding MANOVA's significant effect. Control variable is age.

Table 22 displays the significant differences by groups found using follow-up pairwise comparisons. Base means and adjusted marginal means (i.e. estimated means controlling for covariates) can also be found in Table 22. While insignificant, the univariate effect for Level of Exploitation Coercion was in the predicted direction.

Table 22. Base and Adjusted Means Examining the Effects of Gender and Level of Exploitation Coercion on Endorsement of AIR Love

Effects of Level of Exploitation Coercion							
Scale	<i>F</i> (2, 255)	Base Means (SD)			Adjusted Means (SE)		
		Non-Coercers	Used 1	Used 2 or more	Non-Coercers	Used 1	Used 2 or more
Control	2.90	2.44 (.60)	2.66 (.67)	2.83 (.54)	2.48 (.05)	2.68 (.09)	2.79 (.12)
Game-Playing	1.86	2.87 (.60)	3.00 (.62)	3.15 (.74)	2.91 (.05)	3.03 (.09)	3.18 (.12)
Reciprocity	0.84	4.24 (.63)	4.15 (.57)	3.99 (.74)	4.17 (.05)	4.11 (.09)	3.98 (.12)
Emotional Intensity	1.10	3.75 (.62)	3.66 (.61)	3.47 (.57)	3.72 (.05)	3.63 (.09)	3.51 (.12)

Effects of Gender					
Scale	<i>F</i> (1, 255)	Base Means (SD)		Adjusted Means (SE)	
		Males	Females	Males	Females
Control	2.13*	2.71 (.66)	2.40 (.57)	2.78 (.07) ^a	2.52 (.08) ^a
Game-Playing	0.71	3.07 (.65)	2.83 (.58)	3.11 (.07)	2.97 (.08)
Reciprocity	1.83*	3.96 (.62)	4.34 (.60)	3.97 (.07) ^b	4.20 (.08) ^b
Emotional Intensity	1.95*	3.56 (.63)	3.79 (.59)	3.50 (.07) ^c	3.74 (.08) ^c

Note. Significant differences are marked for adjusted means only, ^{a-c} denote significant differences between pairs. * $p < .05$, ** $p < .01$, *** $p < .001$. Estimated means control for Age. The Bonferroni adjustment was used in post-hoc comparisons. Scale ranges from 1 = Strongly Disagree to 5 = Strongly Agree.

Table 23 displays the marginal interaction effect between Gender and Level of Exploitation Coercion on endorsement of Reciprocity. For males, higher levels of exploitation

related with higher endorsement of Reciprocity. Lower Levels of Exploitation Coercion were related with marginally lower endorsements of Reciprocity, for males. However, the trend reversed for females; high-Level of Exploitation Coercers reported lower endorsement of Reciprocity and low-Level Exploitation Coercion was related with higher endorsement of Reciprocity, This trend approached significance, $p = .06$.

Table 23. Base and Adjusted Means of Reciprocity by Gender and Level of Exploitation Coercion.

Means of Reciprocity Endorsement by Perpetration Level and Gender							
		Base Means (SD)			Adjusted Means (SE)		
		Non-Coercers	Used 1	Used 2 or more	Non-Coercers	Used 1	Used 2 or more
Gender	Male	3.95 (.63)	3.90 (.67)	4.05 (.56)	3.95 (.08)	3.90 (.14)	4.06 (.14)
	Female	4.38 (.59)	4.32 (.43)	3.91 (1.01)	4.38 (.05)	4.33 (.12)	3.90 (.19)

Note. Estimated means control for Age. The Bonferroni adjustment was used in post-hoc comparisons. Scale ranges from 1 = Strongly Disagree to 5 = Strongly Agree.

In order to increase statistical power and explore the effect of Exploitation coercion as a dichotomous level variable on the endorsement of Control, additional analyses were conducted. Thus, after exploring marginal interaction effects, analyses will be explored that probe the effect of Exploitation Coercion on Control endorsement using few categories to increase power. Coercers were collapsed into one category including anyone who used any Exploitation tactics. This brought the marginal effect of Coercion upon AIR Love endorsement into significance. These analyses are discussed in detail in the next section examining the effect of Exploitation Status (i.e. the dichotomous categories Exploitation Non-Coercer versus Coercer)

3.6.1 Effects of Exploitation Status on AIR Love Endorsement

As discussed previously, Exploitation non-coercers reported never using any of the 6 Exploitation tactics in this study. Exploitation coercers constitute participants who used 1 or more Exploitation tactic. Following the prediction outlined above for Level of Exploitation Coercion, it was expected that Exploitation (EX) Coercers would report higher endorsement of Control. This is expected as coercers are considered a higher level coercers than non-coercers. A 2-Gender X 2-Exploitation Perpetrator status MANCOVA examined endorsements of AIR Love, controlling for age.

As seen in Table 24, main effects for Exploitation Perpetrator Status and Gender were significant at the multivariate level. Exploitation Perpetrator Status significantly affected endorsement of AIR love, $F(4,254) = 2.67, p < .05$. Consistent with previous findings, significant main effects for Gender were also found at the multivariate level, $F(4,254) = 6.35, p < .001$. Multivariate results did not indicate any Gender X Exploitation Perpetrator status interactions, $F(4,254) = 1.25, p > .05$. Age was found to have a significant multivariate effect, $F(4,254) = 3.56, p < .05$.

Table 24. MANCOVA Summary for Exploitation Perpetrator Status and Gender on AIR Love Scales

Source	<i>Multivariate Effects</i>		
	<i>F</i> (4, 254)	<i>Λ</i>	<i>p</i>
Gender	6.35	.09	.000
Exploitation Perpetrator Status	2.67	.04	.033
Gender X Exploitation Perpetrator Status	1.25	.02	.291
Age	3.36	.05	.011

Note. DVs are Control, Game-Playing, Reciprocity and Emotional Intensity. Shaded regions are significant effects.

Univariate analyses were conducted to follow-up the significant main effects of Exploitation Perpetrator Status (Analyses are presented in Table 25). As predicted, Exploitation Perpetrator Status significantly affected endorsement of Control, $F(1,257) = 3.07, p < .01$. A marginal effect of Exploitation Perpetrator Status on endorsement of Game-Playing also emerged, $F(1, 257) = 1.11, p < .10$. Consistent with previous findings, endorsement of AIR Love was related to endorsements on all 4 AIR Love. Univariate analyses discovered age-related differences in the endorsement of Game-Playing, but no other AIR Love scales.

Table 25. Univariate effects of Exploitation Perpetrator Status and Gender on AIR Love Endorsement

Univariate Effects				
<i>F</i> (1, 257)				
Source	<i>Control</i>	<i>Game-Playing</i>	<i>Reciprocity</i>	<i>Emotional Intensity</i>
Gender	3.48**	2.36*	5.53***	3.00**
Exploitation Perpetrator Status	3.07**	1.10°	0.29	0.84
Gender X Exploitation Perpetrator Status	0.01	0.03	0.49	0.27
Age	0.323	4.00**	0.27	0.03

Note. DVs are Control, Game-Playing, Reciprocity and Emotional Intensity.
Shaded regions are significant effects.

The significant main effect of Exploitation Perpetrator Status on the endorsement of Control is illustrated in Table 26, which summarizes the base and adjusted means for all AIR Love, controlling for age. Exploitation Coercers endorsed Control to a greater extent than Exploitation Non-Coercers. Exploitation Coercers tended to endorse Control .25 points more than Non-Coercers, on average. No interaction with Gender occurred with Exploitation Perpetrator Status.

Table 26. Mean endorsement of AIR Love by Gender and Exploitation Perpetrator Status

Means of AIR Love Endorsement by Exploitation Perpetrator Status and Gender								
Scale	Base Means (SD)				Adjusted Means (SE)			
	Perpetrator Status		Gender		Perpetrator Status		Gender	
	Non-Coercers	Coercers	Males	Females	Non-Coercers	Coercers	Males	Females
Control	2.46 (.60)	2.73 (.63)	2.71 (.66)	2.41 (.57)	2.48 (.05) ^a	2.73 (.07) ^a	2.74 (.06) ^b	2.48 (.06) ^b
Game-Playing	2.87 (.60)	3.06 (.67)	3.07 (.65)	2.83 (.58)	2.91(.05)	3.06 (.07)	3.09 (.06) ^c	2.88 (.06) ^c
Reciprocity	4.24 (.63)	4.09 (.64)	3.96 (.06)	4.34 (.60)	4.17 (.05)	4.09 (.07)	3.96 (.06) ^d	4.30 (.06) ^d
Emotional Intensity	3.75 (.62)	3.59 (.60)	3.56 (.63)	3.79 (.59)	3.72 (.05)	3.59 (.07)	3.53 (.06) ^e	3.78 (.06) ^e

Note. Significant differences are marked for adjusted means only, ^{a-e} denote significant differences between groups. Adjusted means control for Age. The Bonferroni adjustment was used in post-hoc comparisons. Scale ranges from 1 = Strongly Disagree to 5 = Strongly Agree.

4.0 DISCUSSION

4.1 SCALE DEVELOPMENT

One novel contribution this study offered was the development of three AIR Love scales that assessed separate, but related aspects of idealized romantic love. Acceptable scales were developed that measured Control, Reciprocity, and Emotional Intensity. This contribution is two-fold. First, other studies (e.g., Sarwer et al., 1993; Russell & Oswald, 2001) have cited some of these specific elements as the driving factors underlying the associations between love and sexual coercion but did not directly test this idea. Thus, this study was the first to develop and directly measure these components.

Most AIR Love scales at least partially demonstrated construct validity and known-groups validity. Control and Game-Playing endorsement were significantly related to LAS Ludus scores and were endorsed to a greater extent by male participants. Also, Emotional Intensity was significantly related to LAS Mania scores and endorsed by a greater extent than females on average. Reciprocity was endorsed by a greater extent than females, as predicted. These data are consistent with the findings that males tended to agree to ludic ideals to a greater extent than females, and females tended to agree to manic ideals to a greater extent than males (Hendrick, Hendrick, & Slapion-Foote, 1984).

Attempts to establish behavioral validity for the four AIR Love scales were partially successful. Reciprocity was behaviorally valid for both males and females. However, the

relationship between reports of asking partners to show more feeling and endorsement of Reciprocity was stronger for females than males. Females also reported a higher frequency of asking partners to show more feeling. Control was positively related to reports of searching for “easy” partners for males, but not for females. Males reported a higher frequency of searching for “easy” partners. A marginal relationship between Emotional Intensity and reports of being “head over heels” in love for males and females did become significant when collapsed across genders, but remained insignificant when grouped by gender.

Each of the AIR love scales in this study were designed to measure aspects of Lee’s lovestyle ludus and mania. Each scale was developed to tap only one construct. Scale development for each scale is discussed in detail below.

Lee described an aspect of the ludic lover that was “manipulating” (1976). In his 1973 book, Lee said, “Perhaps ludus seems too manipulative to be called a style of loving” (p. 47). He then argued that it was indeed a lovestyle. In this study, a scale was created that measured this aspect of ludic love, the manipulative or controlling aspect of ludus.

Evidence suggests that scores of Control reflect a quite different construct from its parent lovestyle Ludus. Control endorsement did relate significantly to the endorsement of ludus for both males and females, $r = .43, p < .001$ and $r = .17, p < .05$, respectively. The squared Pearson’s correlation between LAS Ludus and Control showed endorsements of these two scales shared only a small amount of variance; for males 18.5% of the variance in responding was shared and for females 2.9% of the variance was shared.

The Control scale was reliable and some evidence suggests it was valid. However, as a scale, it performed better for male participants. The relationship between Control endorsement

and ludic endorsement was significantly stronger for men than for women. In addition, behavioral validity was supported only for males.

Another scale developed in this study measured the aspect of Reciprocity. Lee (1973) said that manics used desperate attempts to force reciprocation from their beloved. It is this element of mania that the Reciprocity scale in the study was developed to assess.

Reciprocity only marginally related to endorsement of Mania. Also, evidence suggests Reciprocity taps a very different construct from LAS Mania. Endorsement of Reciprocity did not significantly relate to LAS Mania endorsement for males and females, $r = .15, p < .10$ and $r = .11, p < .10$, respectively. The squared Pearson's correlations reflecting shared variance between Reciprocity and Mania endorsements were negligible. Endorsements for males shared 2.3% of the overall variance responding and females' endorsements shared 1.2% of the variance. This evidence suggests that scores of Reciprocity scale differ from the parent lovestyle Mania.

LAS Mania and the Reciprocity scales may measure different constructs. As discussed previously, the LAS mania scale measured the visceral, instinctual aspect of manic love. The desire for reciprocity was not apparent in most of the items in LAS Mania. However, the one item that does indicate attempts to get increased attention from a romantic partner in the LAS Mania scale was inadvertently omitted from this study. Thus, it is possible the relationship and shared variance between Reciprocity and LAS Mania are higher than reported in this study.

The other three AIR Love scales demonstrated construct validity, but Reciprocity did not. LAS Mania and Reciprocity were only marginally related. One explanation for this marginal relationship is that reciprocity may not be an element of manic love. However, according to Lee's (1973) Colours of Love Theory, Mania involves an intense need for reciprocity. This was the basic theory used to develop the items for the Reciprocity scale used in this study. Another

explanation is that the LAS scale for Mania may not adequately tap this component, explaining the marginal relationship between LAS Mania and the AIR Love scale for Reciprocity.

Additional evidence offers more support for the development of Reciprocity as an Aspect of Idealized Romantic Love (AIR Love). As predicted to establish known-groups validity, females did endorse Reciprocity to a greater extent than did males. The Reciprocity scale was found to be internally consistent. Interestingly, behavioral support for validity was evident only for females. Thus, some evidence suggests this scale performed better for females.

The scale for Emotional Intensity was also developed for the purposes of this study. As Lee described mania, he noted an element of this lovestyle where lovers preferred intense expressions of love (1973). Lee described a manic in love as one who “escalates the intensity of his attention, protesting love more loudly and more often....” (1973, p. 100).

It is this aspect of mania that Emotional Intensity scale was designed to capture. In this study, the Emotional Intensity (EI) scale was internally consistent and support for validity was adequate. Behavioral validity was marginally supported for males and females. In establishment of known-groups validity, females did endorse EI to a greater extent than did males.

Construct validity was supported, but evidence suggests that Emotional Intensity and LAS Mania measure different aspects of Mania. The endorsement of EI related significantly to the endorsement of LAS Mania, $r = .31, p < .01$ and $r = .39, p < .001$, for males and females, respectively. However, in squaring these correlations, results showed endorsements of EI and LAS Mania shared only a small amount of variance. The variance in shared between endorsements of EI and LAS Mania was 9.6% for males and 15.2% for females.

While scale development for Control, Reciprocity, and EI were relatively successful, results for Game-Playing indicate a lack of a reliable and valid scale to measure this construct.

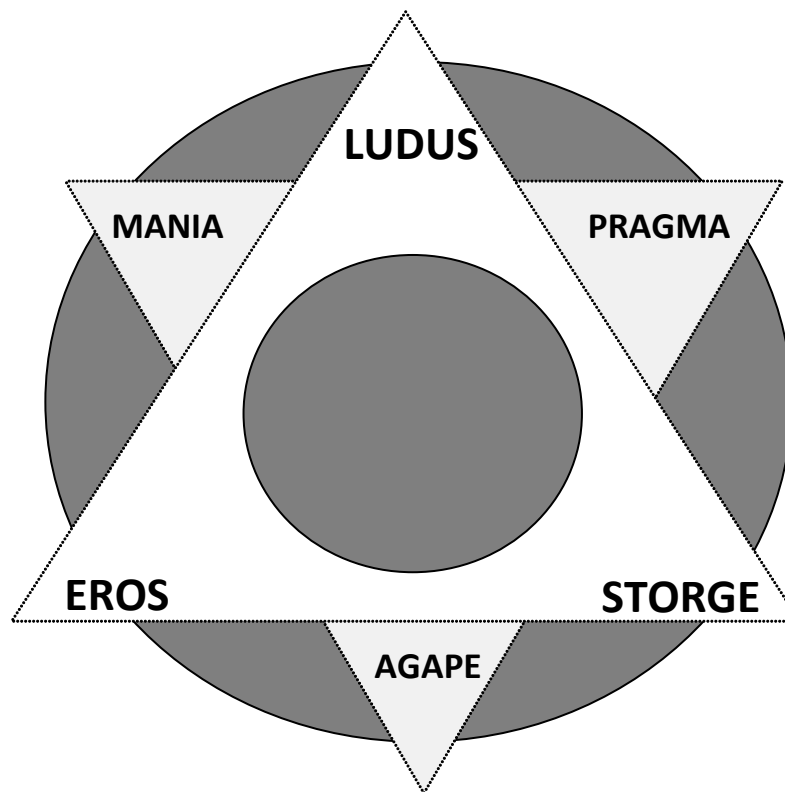
One explanation for the finding of low reliability for Game-Playing is that the scale may not have been one-dimensional. To test this idea, exploratory factor analyses were conducted using the 7 items from the Game-Playing scale. The EFA were conducted using a Varimax orthogonal rotation extracting factors with Eigen values greater than 1.0. Results supported the notion of multi-dimensionality; two factors were found. One factor reflected flirting (Eigenvalue = 2.21), with the two flirting items carrying the highest loadings. The other factor may have more accurately tapped Game-Playing, (Eigenvalue = 1.42). Its highest loading items assessed preferences for the use of game-like rules, bluffs and calls, and patterns of initiations and responses by romantic and sexual partners. However, because of a limited number of items, neither of these factors could be built into a more reliable and valid scale than the full Game-Playing measure used for this study. Given the low reliability of Game-Playing, it is possible that this aspect of idealized romantic love was not sufficiently measured, indicating the need to develop a better measure.

The lack of obtained behavioral support for Game-Playing may be due to an issue with how Game-Players view relationships. In this study, endorsement of Game-Playing did not relate to the number of times individuals reported having “defined rules” for their relationships. This suggests that romantic game-playing may not involve formal “relationships”, but instead casual encounters. Thus game-players responding to this behavioral item might not have considered themselves members of “relationships” even if they were defining rules for their encounters, and for this reason may not have endorsed the game-playing items. Other evidence in this study suggests that the notion of a “relationship” and romantic or casual encounters in the context of dating are not synonymous. For example, more individuals reported a relationship length greater than 0 days than reported labeling themselves as “dating”.

Another explanation for the lack of behavioral support for the game-playing measure may be related to gender differences. These null findings may be due to the reported higher frequencies for women than men of having defined rules for their relationships. I argued previously that “defining the rules” for a relationship might not appropriately tap the behavioral correlate of GP. This may be the case, at least for males. Other explanations exist for these null findings of a relationship with setting rules for relationships and game-playing as an ideal lovestyle. For example, it is possible that game-players have rules and play by these rules, or schemes, but this strategic maneuvering is not shared with the partner, as is now specified by the game-playing items. Another interesting explanation is data driven; for females, “defining rules” was marginally related to endorsement of Reciprocity and significantly related to endorsement of LAS mania, suggesting this item really tapped some behavioral correlate of manic love.

One of the difficulties in developing scales that measure aspects related to ludus and mania is the related nature of these two lovestyles, as described in Lee’s Colours of Love Theory (1976). As illustrated in Figure 2, the manic lovestyle is actually a blend of ludus and eros. The primary lovestyles in the color wheel form the larger triangle: ludus, storge, and eros. The secondary styles (i.e., mania, pragma, and agape) are blended styles that result from combinations of the primaries. That mania is a secondary style of ludus implies that these two styles, and perhaps aspects of these styles, might be related. For example, Mania and Ludus tend to be inversely related (e.g., Hendrick, Hendrick, Foote, Slapion-Foote, 1984).

Figure 2. Lee's Colours of Love Lovestyles Wheel



As seen in validity analyses in Table 13 and described above, assessing validity with related constructs is difficult. For example, it was predicted that LAS Ludus endorsement would positively relate to Control and GP. This was the case. However, LAS Ludus endorsement also significantly, but negatively related to endorsements of Reciprocity and Emotional Intensity. Given that in the literature and in this study, LAS Mania and Ludus tend to be inversely related (e.g., Hendrick, Hendrick, Foote, Slapion-Foote, 1984), this is not surprising.

In sum, there is support for the development of some of the AIR Love scales. Reciprocity demonstrated construct, known-groups, and behavioral validity. Emotional Intensity was

reliable, known-groups valid, and construct-valid. Control was reliable and demonstrated construct and known-groups validity. Control was also behaviorally valid for males. Game-Playing was the poorest of the four scales developed in this study. It demonstrated low reliability and no behavioral validity, however, know-groups differences did emerge.

4.2 FINDINGS WITHIN CATEGORIES OF COERCION

As expected, the pattern of results differed across the three categories of sexual coercion. This study showed that the endorsement of aspects related to ludus, specifically Control, was related with higher self-reported frequency of perpetrating acts of coercion. This pattern was consistent for Emotional Manipulation and Exploitation Coercion. However, within Enticement, no significant effects emerged. If results had been the same across all categories of coercion, I could have argued that the perpetration of sexual coercion is not sensitive to type of coercion. As this was not the case, studies examining sexual coercion would benefit from examining categories of coercion separately, as was done in this study.

Data did not support the predictions that Levels of Enticement Coercion Perpetration would relate to endorsements of AIR Love. Even when collapsing Levels of Enticement Coercion Perpetration into dichotomous levels, only a marginal effect of Control was found. Against predictions, Level of Enticement Coercion Perpetration were not related to different endorsements of Reciprocity or Game-Playing.

One explanation for these null findings may be that Enticement Coercion is perceived as normative by both groups, coercers and non-coercers. Struckman-Johnson, Struckman-Johnson, and Anderson (2003) theorized that physical arousal tactics used to sexually coerce partners were

the most normative and least severe of the 4 categories they examined (i.e. arousal, verbal and emotional coercion, alcohol, and force). The vast majority of participants in this study did report using at least one Enticement tactic, 81% of males and 60% of females. This may be evidence that Enticement coercion tactics have become normative behaviors within sexual encounters for college students. If this is the case, it would be difficult to detect gender differences or effects of love styles. If Enticement coercion behaviors are perceived by all participants as normative, it is possible that self-reports of Enticement perpetration would not be related to endorsements of AIR Love scales. There is a difference between using physical arousal to gain a partner's compliance and using physical arousal to coerce partners into sexual activity. However, it is possible that no participants perceived this difference. Thus, acts of Enticement Coercion may be substantively different than that of Emotional Manipulation or Exploitation Coercion.

The notion of categories of sexual coercion is handled differently by different researchers in the literature. Struckman-Johnson, Struckman-Johnson, and Anderson (2003) have adopted a category-based approach as used in this study. However, some recent measures can be scored across all types of coercion, without being sensitive to coercion categories (e.g., Koss et al., 2007).

Two lines of evidence suggest that Enticement Coercion should not be treated similarly to other types of coercion. First, the rates in this study and in others for these types of tactics are quite high compared to other forms of coercion (e.g., Struckman-Johnson, Struckman-Johnson, & Anderson, 2003, Zurbriggen, 2003). Furthermore, in this study patterns of findings linking perpetration of Enticement Coercion and endorsement of love differ from patterns found in Emotional Manipulation and Exploitation Coercion. Given the different behavior of Enticement

Coercion, a category approach might be best suited to be able to assess these tactics separately from others.

4.3 GENDER DIFFERENCES IN AIR LOVE AND THE PERPETRATION OF SEXUAL COERCION

This study was the first, to the author's knowledge, to examine the effects of sexual coercion and idealized love endorsements with both male and female perpetrators. This study adds to work by Russell and Oswald (2001) that examines the female perpetration of sexual coercion as it relates to styles of love. This was an important step in understanding the similarities or differences in the perpetration of sexual coercion by males and females. In this study, effects of perpetration were not different by gender. In light of the lack of significant Gender by Emotional Manipulation Coercion Level interactions, the findings in this study suggest a similar theoretical grounding for both males and females. Those who use Emotional Manipulation Coercion at low levels report lower endorsements of Control and Game-Playing, regardless of their gender. Lee (1973) argued that his lovestyles should operate similarly for males and females. So this finding is consistent with his theory.

The significant results relating to AIR love and categories of sexual coercion, as described below, were not affected by gender of the participant. Note that all significant effects at the univariate level relate to different endorsements of elements of ludus, Control or Game-Playing. It may be that once one endorses Control or Game-Playing, gender is not a factor. It is possible, however, that other patterns of results tying endorsements of ideals in romantic relationships and sexual coercion might differ by gender.

As predicted, results in this study supported the hypothesized relationship between higher perpetration of Emotional Manipulation and higher endorsements of Control and Game-Playing. In this study, both Control and Game-Playing were related to Lee's (1969) conception of Ludus. These findings suggest that two aspects of ludic love were related with self-reports of committing acts of sexual coercion against others. These findings are consistent with earlier work and build upon claims tying endorsements of Control and Game-Playing to the perpetration of sexual coercion by males (Kalichman et al., 1993; Sarwer et al., 1993; Russell & Oswald, 2002) and females (Russell & Oswald, 2001).

The evidence in this study suggests that endorsement of Control and Game-Playing are related to higher levels of perpetration of sexual coercion for males and females. Given that this is one of the first studies to examine this matter, firm conclusions regarding the role of gender in these findings remain elusive. Whether gender should be a main consideration in future work linking ideal love and sexual coercion remains to be determined. Given the gender differences in validities and reliabilities of AIR Love scales, attention to gender seems warranted. The statistically different proportions of male and females non-coercers and coercers within each category of coercion also suggests that the perpetration of sexual coercion varies by gender.

4.4 OTHER FINDINGS

Only one prediction, Hypothesis ENT 4, was made tying Emotional Intensity to the perpetration of acts of sexual coercion. But against predictions, Emotional Intensity did not relate to level of enticement coercion. This contradicts findings by Kalichman and colleagues (1993), where male coercers and non-coercers did differ in their endorsement of emotional extremes. Inconsistent with their findings, the results of this study suggest that perpetration of sexual

coercion is not related to Emotional Intensity. No main effects for Emotional Intensity were found in this study for males or females. However, Emotional Intensity may be related to types of sexually coercive behavior outside the scope of this study, such as forceful coercion. It is possible that Emotional Intensity is not related to the perpetration of sexual coercion.

Against Hypothesis EM 4, Emotional Manipulation Coercion Level was not related to endorsements of Reciprocity. As an element related to Mania, it was expected the EM Coercion Level would be related to perpetration of sexual coercion. These findings contradict results by Russell and Oswald (2001) such that coercive females scored higher on mania than did non-coercive females. This suggests that Reciprocity may not be the element that drives the association with manic endorsement and higher sexual coercion perpetration found in other work. Other elements of mania (e.g., unrealistic expectations, lack of self-control) may be responsible for driving the found association in Russell and Oswald (2001). This study also found no relationships between Emotional Intensity and the perpetration of sexual coercion, regardless of category of coercion. It is possible that Emotional Intensity is also not the driving factor behind associations between mania and sexual coercion perpetration. It is also possible, especially given the lack of behavioral validity, that Emotional Intensity was not adequately measured in this study. However, given the strong support for a reliable and valid Reciprocity scale, this argument is less likely for Reciprocity.

In a study by Sarwer and colleagues (1993), a link was found between males' ludic endorsement and their likelihood to use force against partners to coerce them into sexual activity and their likelihood to rape. These researchers cited Ludus as the "manipulative, game-playing approach to intimate relationships" (p. 272). The present study moves beyond hypothetical assessments of sexual coercion and provides data suggesting direct associations between

endorsements of Control and Game-Playing to self reports of committing sexual coercion. Specifically, endorsements of Control were related to higher self-reported levels of using Enticement tactics and endorsements of Control and Game-Playing were related to higher self-reported levels of using Emotional Manipulation and Exploitation Coercion to coerce partners into sexual activity.

Endorsement of Control was higher when individuals reported committing more acts of Emotional Manipulation or Exploitation coercion. There is support to suggest that controlling lovers' desire for partners to do whatever they desire extends to sexual behavior, even at the cost of removing their partners' abilities to freely provide consent. Endorsements of Control and the perpetration of sexual coercion are significantly related to levels of perpetrating emotional manipulation and exploitation. Synthesizing these findings, it may be suitable to consider the relationship between a higher endorsement of Control as an ideal in romantic and sexual relationships and perpetration of sexual coercion robust. Control, as measured in this study, may be the element of ludic love that other researchers have cited as the cold, manipulative and calculating driving force between relationships of Ludus and the perpetration of sexual coercion (Kalichman et al, 1993; Sarwer et al, 1993; Russell & Oswald, 2001; 2002). The effect was similar for males and females.

Another measurement level contribution of this study was the development of a ratio-level measure to assess different forms of sexual coercion. As discussed, several types of scales currently exist to study sexual coercion. This study developed a measure that combined many of the best elements from existing scales. Thus, results from this study and those that could adopt the developed measure provide clearer estimates of sexual coercion. For example, Enticement coercion could be described using the 6 items that measure this category. This contrasts with

measures such as the SES (Koss et al. 2007) that list many tactics within a single item. Furthermore, an individual sexual coercion tactics-level analysis could be conducted comparing difference on endorsements of AIR Love by levels of perpetration of single acts of coercion. Additionally, each category of tactics includes an equal number of items, making comparisons across levels more suitable than other measure (e.g., Struckman-Johnson, Struckman-Johnson, & Anderson, 2003). The final contribution of the developed sexual coercion measure is that matters of consent are clearly implied in each item.

4.5 STUDY LIMITATIONS

The self-report nature of such sensitive data is surely one of the study's limitations. Reliance on participants' honest responding on topics that are likely to be sensitive to responding biases is dangerous. This issue could be addressed by using different reporting tactics. It may be that online data collection would provide better results. Another option would be to statistically control for biased responding patterns. One option is to use a social desirability measure and control for this in analysis, but gather more data points to offset the loss in power. Another option is to create standardized and ipsatized scores based on group and individual variance in responding.

Generalizability in this study is limited to college males and females. Given the high self-report incidence of perpetration in this population, this can also be considered one of the study's strengths. Thus, results cannot be extended to older adult samples or committed relationships, where access to coercion resources may differ (e.g., Shackelford & Goetz, 2004). It is also important to note that while this study does examine aspects of idealized romantic relationships,

this does not suggest that all acts of coercion were committed against relationship partners. It is imaginable that this framework could be extended to examine sexual coercion using force and acts committed against others in different contexts (e.g., stranger rape).

The study sample included only those who had indicated they had engaged in sexual activity and was correlational in design. Thus there is no way to discern whether perpetrating acts of sexual coercion lead to shifts in endorsements of AIR Love or AIR Love endorsement drove the perpetration of such acts. Larger-scale studies could adopt either a longitudinal approach or test differences in AIR Love endorsements by sexual experience.

All interpretations of findings must account for the very low reliability and validity of the Game-Playing Scale. As mentioned previously, this scale better measures endorsements of Game-Playing for males. Different items factored together for males and females, however, a decent scale for females was not possible given the items used in this study. Behavioral validity of Game-Playing was made more difficult to establish given the imprecise measurement of behavioral validity categories, narrower categories for behavioral items could increase variability in responses. More sensitive measurements might afford better relationships between behavioral validity and AIR Love endorsements.

In addition to validity concerns, reliabilities of the developed scales also varied by gender. Scale re-development should explore the effects of reliability by gender and seek to construct an additional possible bank of items that could be endorsed similarly by males and females. In this study, game-playing was especially unreliable for females. This may drive the lower reliability of this scale overall. If captured with better measurement, more support for Game-Playing as a driving factor in the perpetration of sexual coercion may be found.

Retrospective power analyses indicated that observed power in this study was low for many effects. Please see Appendix I for the observed power of the multivariate and univariate effects in this study. Rarely was observed power above .80. Observed power of .80 is the lower threshold of what is considered adequate to determine a significant effect (Cohen, 1988). In this study, observed power tended to be sufficient (i.e., above .80) for determining main effects of gender. Obtained power was lower for determining main effects of sexual coercion perpetration, often falling below the threshold of .80, especially for univariate effects. Finally, observed power was lowest for interactions of gender by sexual coercion perpetration effects, where the highest multivariate power observed was .60 and highest power for a univariate interaction effect was .51.

Thus, a possible explanation for the null findings for the effect of Enticement Coercion, for example, is that statistical power may have been insufficient. Enticement perpetration was high in this sample. Only 19% of the males and 41% of the females in this study did not use any Enticement Coercion tactics. However, the observed power at the multivariate level for the level of Enticement Coercion effect was sufficient at .94. Furthermore, when Enticement Coercion was collapsed into a dichotomous level variable, obtained multivariate power was not higher than in analyses using the level of Enticement Coercion variable. However, obtained univariate power for both sets of analyses for the sexual coercion perpetration effect within Enticement Coercion were extremely low, ranging from .23- .57.

Throughout all sets of analyses, observed power was particularly low for interaction effects. In some cases observed power was as low as .06 at the univariate level. This could indicate concerns with either the sample size or methodological choices in this study that failed

to capture a true and larger effect. Another possibility is that obtained power is low because the true effect size for these interactions is small.

Thus, it is possible that null findings resulted from low power, especially for detecting the interaction effects. Thus, future studies are needed to further determine whether the null results are in fact due to the null effects or due to the size of the sample in the current study.

4.6 FUTURE DIRECTIONS

Future research could consider alternative conceptualizations for the perpetrations of sexual coercion. One explanation for the null findings of this study is that level of perpetration is more accurately reflected using an overall maximum frequency of sexual coercion perpetration. This maximum frequency is the highest frequency (e.g., Never, Sometimes, Very Often) reported of using any of the 6 tactics in one category of sexual coercion (e.g., Enticement Coercion). For example, imagine a perpetrator that used 4 tactics of Enticement Coercion, but used each of these tactics only 1 or 2 times. When level of perpetration is conceptualized as number of tactics used, this individuals would have been considered a “Level 3” Coercer, or the highest level possible. However, if we look across all the tactics used and calculate only the maximum frequency of use, this individual would be considered a lower level Coercer, given this individual coerced at the lowest level of coercion. Another individual may have used only 1 tactic of Enticement Coercion, but used it very often, the highest reporting option available. Otherwise stated, it may not matter how many tactics are used as much as the maximum frequency of using such tactics.

It may be interesting to compare the two types of perpetration level. If findings are different, future research might consider using both conceptualizations. It may be that overall

frequency of perpetration within category as well as the number of tactics used are important in understanding relationships with the perpetration of sexual coercion. Each of these conceptualizations portray different information.

To explore this idea, a MANCOVA was conducted examining the effects of Gender by Maximum Frequency of Sexual Coercion with Enticement Coercion on AIR Love endorsement, controlling for age. This category was chosen given the lack of statistical support for main effects in Level of Sexual Coercion using a sum of tactics used. Maximum frequencies were calculated by taking the highest reported frequency across all 6 Enticement tactics and retaining that score; maximum frequency categories were “Never”, “Once or Twice”, “Sometimes”, “Often”, and “Very Often”. The overall multivariate effect of Maximum Frequency was significant, $\Lambda = .16$, $F(16, 1004) = 2.54$, $p < .01$, controlling for age.

The univariate level effects of Maximum Frequency were significant upon endorsements of Control, $F(4, 262) = 4.91$, $p < .01$, and Game-Playing, $F(4, 262) = 6.35$, $p < .01$. A marginal main effect of Emotional Intensity was found, $F(4, 262) = 2.83$, $p = .11$. As would be expected, according to this study’s perpetration level hypotheses, trends that emerged were that endorsements of Control, Game-Playing and Emotional Intensity were higher at higher levels of maximum Enticement Coercion. The effect for Reciprocity was not significant, $F(4, 262) = 0.88$, $p = .58$. This further suggests that Reciprocity may not be a factor in the perpetration in sexual coercion. Evidence in this study suggests, that reciprocity may be a protective factor against the perpetration of sexual coercion, especially for women.

Specifically, this study found a trend whereas males who used more tactics of Exploitation also had higher endorsement of Reciprocity. In the opposite pattern, females’ higher levels of Exploitation Perpetration were related to lower endorsements of Reciprocity. It may be

that high Reciprocity endorsement is a risk factor for the perpetration of Exploitation Coercion for males, but a protective factor for females. It is unclear why Reciprocity would be associated with lower levels of Exploitation coercion for females, but associated with higher levels of Exploitation Coercion for males. One possible suggestion for this finding is that ideals may serve different functions by gender as dictated by normative scripts or gender role theories. Future research could examine this possibility by using a script theory approach.

This demonstrates how sensitive results may be to the conceptualizations adopted for sexual coercion perpetration. In this study, I examined the effect of number of tactics used upon endorsements of AIR Love. Future research could further examine the influence of maximum frequencies as a reflection of level of sexual coercion perpetration.

In a second wave of scale development, several strategies could be adopted to strengthen scales. A larger list of items should be developed and added to the existing scales. Only eight were designed for each of these constructs, and this did not afford much margin for error. Scale redevelopment should be focused upon strengthening the Game-Playing scale. Given that two factors emerged in EFA using an orthogonal rotation, there are two possible solutions. Either two subscales could be developed, or redevelopment should return to Lee's theory to guide selection of factors. Also, to strengthen behavioral validity support for AIR Love scales, different behaviors may be developed for males and females. I suggest that behaviors be consistent with traditional dating norms. One avenue toward developing better behavioral validity items may originate from examining literatures in gender script theory, such as the Traditional Sexual Script (Byers, 1996). Additionally, a new item should be considered, regardless of gender, to attempt to establish emotional intensity. It is also possible that there is no difference between being simply "in love" and "head over heels in love". As Pascal argued, "when one does not love to

excess, one does not love enough” (cited by Lee, 1976, p. 94). Perhaps the experience of love is always excessive, arguing for a different form of behavioral validity assessment. Finally, another avenue to establish construct validity may be to use additional measures that tap related constructs. This would improve upon using the LAS as the only indicator of construct validity. One such scale would be the Love Experiences Questionnaire (Hazan & Shaver, 1987) which includes subscales that measure “emotional extremes” and a “desire for reciprocation”. These two subscales could be used to further construct validity for emotional intensity and reciprocity. Some of these subscales might also provide avenues toward establishment of discriminant validity (e.g., subscales for “happiness” or “trust”).

Given the high proportion of Enticement Coercers, it may be possible to examine these hypotheses on an individual tactics level. Taking a tactic-level approach would involve using each of the 6 Enticement tactics as individual independent variables in analyses. Thus, some tactics may be related to higher endorsements of AIR Love and some may not. For example, continued touching and kissing after a target’s refusal might not be related to different endorsements of AIR Love, however, removing a target’s clothes after his or her refusal may be related to different endorsements.

Further research could also extend the current framework. However, further research could examine the use of AIR Love to explain sexual coercion in other age brackets and within other types of relationships (e.g., committed relationships, casual relationships only). Further research could also examine the stability of these attitudes and perpetration rates over time. Regardless of the direction of future research, studies and analyses need to be sensitive to differential relationships by gender of the perpetrator to better inform prevention, treatment, or educational efforts.

If future work finds that Game-Playing is related to Exploitation, then it could be argued that the purpose of game-play is to win. As was argued in this study Game-Playing was not predicted to have involved the use of Exploitive sexual coercion tactics, as game-players are motivated by a love of the game.

Future studies should examine the role of Control and Game-Playing in predicting the perpetration of Emotional Manipulation and Exploitation. Results of the study suggest that Perpetration of Emotional Manipulation and Exploitation are related to higher endorsements of Control, but only Perpetration of Emotional Manipulation is significantly related with Game-Playing.

The present study compares links between endorsements of aspects of love and the perpetration of sexual coercion by males and females. Previous studies have tended to look only at men (e.g., Sarwer et al., 1993, Koss & Oros, 1985) or women (e.g., Russell & Oswald, 2001). An interesting and unanticipated finding in this study suggests that endorsements in one aspects of love may be a risk factor for one gender, may serve as protective factor for the other. In this case, high endorsement of risk factors would increase the likelihood of an individual perpetrating acts of sexual coercion and protective factors would related to lower likelihoods of committing acts of sexual coercion. Higher reciprocity endorsement was marginally related to higher self-reports of committing acts of Exploitation coercion for males. However, higher self-reports of committing acts of Exploitation coercion was related to lower endorsement of Reciprocity for females. Comparisons between males and females and the links between investigated factors and sexual coercion perpetration are warranted. Several factors, as those described here, such as TSS, may contribute to different sets of potential risk factors for male and female perpetrators of sexual coercion.

APPENDIX A. RECRUITMENT SCRIPTS BY GENDER

Header for Male Recruitment: Males Only, 18 years of age or older

This research study is about attitudes and behaviors that are related to relationships. Participants will be asked to individually complete survey measures in a large room. Some of the questions on these surveys ask about your thoughts, feelings, and sexual behaviors. All information gathered in this research is anonymous. In order to participate in the following study, you **cannot** be engaged or married or living with your relationship partner to participate in this study. You do not need to be currently involved in a romantic relationship or dating to participate in this study.

Header for Female Recruitment: Females Only, 18 years of age or older

This research study is about attitudes and behaviors that are related to relationships. Participants will be asked to individually complete survey measures in a large room. Some of the questions on these surveys ask about your thoughts, feelings, and sexual behaviors. All information gathered in this research is anonymous. In order to participate in the following study, you **cannot** be engaged or married or living with your relationship partner to participate in this study. You do not need to be currently involved in a romantic relationship or dating to participate in this study.

APPENDIX B. SAMPLE SIZE CALCULATIONS

Three multivariate analyses of variance (MANOVAs) were planned for the testing of the main hypotheses of this study. Sample size estimates were based on the goal of obtaining at least 25 participants per cell (i.e., coercive males, non-coercive males, coercive females, and non-coercive females) for each of the three coercion MANOVAs (i.e. enticement coercion, emotional manipulation, and exploitation). Power analyses were not planned to control for covariates. Power-analyses are estimated assuming a dichotomous level sexual coercion perpetration variable, however, if cell were to permit, other levels could be determined.

As discussed in the Method section, Participants (Ps) were be considered coercive if they have committed at least one coercive tactic within a category and non-coercive if they have never committed any of the tactics in that category. The total sample size estimate was based on the minimum originating from the least frequently occurring category of sexual coercion tactics, Exploitation Coercion. Within this category, the most frequently occurring tactic was used to estimate sample requirements. Males and females both reported purposefully intoxicating a target most frequently within Exploitation, 32% and 18%, respectively. Thus, 78 males and 138 females would have been required to attain a minimum of 25 males and females each reporting use of exploitation tactics. Groups this size would also provided adequate cell membership for Enticement and Emotional Manipulation Coercion, as they are perpetrated occur more frequently than Exploitation by both males and females.

Increases to sample estimates were made in the anticipation of eliminating some Ps. Engaged, married, and cohabiting participants were planned to be excluded from analyses leaving a sample of single and dating participants. Efforts were made in recruitment (i.e. advertising that participants cannot be married, engaged, or cohabitating) to avoid gathering data from those in committed relationships because committed relationships may vary from uncommitted relationships by the type of sexual coercion available (i.e. committed partners may prefer other methods of coercion with their partners). In anticipation of some participants ignoring the screening requirements, the sample size estimate were increased. Roughly 6 to 10% of participants in college samples tend to be engaged or married (e.g., Abbey & McAuslan, 2004; Koss et al., 1987; O'Sullivan, Byers & Finkelmann, 1998; Russell & Oswald, 2002). Using 10% as a conservative estimate of engaged and married participants and cohabiting participants; the minimum sample size required increased to 86 males (i.e. 110% of 78 males) and 152 females (i.e., 110% of 138 females).

In addition, sexual experience was planned to select study participants in order to equate groups on the opportunity to coerce partners. Humphreys and Herold (2007) reported that 93% of 1200 North American college males and females, $M_{Age} = 21$, had engaged in petting or sexual touching; while only 75% had engaged in intercourse. Similar findings were obtained in other studies of 21 year old college students (e.g., Russell & Oswald, 2002). The current study adopted a similar definition for sexual activity as that outlined above, by including petting or sexual touching. The current study's sample was anticipated to be younger than 21, on average; thus, it was assumed that younger persons would tend to have less sexual experience. Therefore, the sample estimate was increased using the conservative rate of 25% of college students not reporting sexual experience. This would afford trimming of those who have not engaged in sexual activity, as defined in this study and consistent with other research (e.g., Sarwer et al., 1993). Therefore, the desired sample size became 108 males (i.e., a 25% increase from 86 males) and 190 females (i.e., a 7% increase from 152 females). (Please note that in alternative analyses, adopting a conservative expected-effect size (Cohen, 1988), where $f^2 = .10$ and Cohen's power tables, with the alpha level set to .05 and the desired power set to .95, a total sample size of approximately 120 participants would be required. The more conservative sample size calculation above will be used for the current study).

APPENDIX C. STUDY SURVEY

Please wait for further instructions do not speak with any other participants.

Please turn off any cell phones or devices that make noise at this time.

READ THE FOLLOWING:

If you are not 18 years of age or older, please come to the front of the room.

The purpose of this research study is to determine whether attitudes and sexual behaviors of college students are related. For that reason, we will be surveying college students and ask them to complete a series of questionnaires. If you are willing to participate, we will ask about your background (e.g., age, race, relationship status), as well as your feelings about ideal types of love and your experiences engaging in sexual behavior with other individuals. Some of the questions may request sensitive information. These questions are central to understanding the research question at hand. Your responses will have no effect on your grade for Introduction to Psychology. There are no right or wrong responses to any of the items on the survey. You are welcome to skip any items you would rather not answer. Just leave these responses blank. Please answer each item you choose to answer as accurately and as honestly as possible. We know of no risks involved with participating in this study. If you have not done so already, please provide your name and Pitt ID on the sign-in sheet to receive research participation credits. This is an anonymous survey; responses on the survey will not be linked to your identifying information in any way. Do not write your name on any of the study materials except the sign in sheet. Your participation is voluntary, and you may withdraw from this study at any time or leave any question unanswered without penalty. This study is being conducted by Destiny Miller, who can be reached at 412.383.7233 or dld22@pitt.edu, and Irene Frieze, who can be reached at 412.624.4336 or frieze@pitt.edu, for questions.

When you finish, please place your answer sheet inside the provided envelope. Please turn the envelope into the researcher upon exiting. When you turn in your answer sheet, please take a summary sheet describing this study. This summary includes contact information you may use to contact the researcher involved in this study and additional information about this study. You may begin.

Read each item carefully and rate how much you agree or disagree with each using the scale below. Some of the items refer to a specific love relationship, while others refer to your general attitudes and beliefs about love. When items ask about your “partner”, think of your idea of a perfect (i.e. ideal) partner or how you think your ideal romantic relationship (including dates or sexual experiences) would most likely be.

A = Strongly Disagree B = Moderately Disagree C = Equally Disagree and Agree D = Moderately Agree E = Strongly Agree

With people I’m involved with romantically, I **prefer** relationships (including dates and sexual experiences)

- | | |
|--|--|
| 1. Where my partner and I have the right ‘physical chemistry’ between us | 22. Where our friendship gradually merged into love over time |
| 2. Where love is really a deep friendship, not a mysterious mystical emotion | 23. With partners that I cannot manipulate |
| 3. Where I can maneuver the situation | 24. Where I find opportunities to score points with my partner |
| 4. Where one partner initiates and the other responds, like in a game | 25. That are an outlet for my strong desires |
| 5. Where I can express my strong feelings of love | 26. Where I always end up making the effort to get together |
| 6. Where my partner frequently shows his/her feelings for me | 27. Where my partner fits my ideal standards of physical beauty/handsomeness |
| 7. Where I feel that my partner and I were meant for each other | 28. Where my partner insists on making the decisions |
| 8. With partners that are easy to trick or influence | 29. That do not involve a lot of flirting |
| 9. That are played according to some type of rules, as games are | 30. Where our love is at the center of my life |
| 10. Where I can be swept up (overcome) by feelings | 31. Where my partner returns my affections |
| 11. Where my partner cares for me as much as I do for him/her | 32. Where that love is most satisfying because it developed from a good friendship |
| 12. Where that love grew out of a long friendship | 33. Where I can practice my persuasion skills |
| 13. Where my partner calls the shots | 34. When my partner bluffs with a “no” when he/she really means “yes” |
| 14. Where partners do take turns playing around | 35. Where emotions are often intense |
| 15. Where the relationships is not very intense | 36. With a partner that doesn’t ask to see me frequently |
| 16. Where my partner does not show me how he/she cares | 37. Where I would rather suffer myself than let my partner suffer |
| 17. Where my partner and I really understand each other | 38. Where I decide what happens in the situation |
| 18. Where I can get others to do what I want | 39. Where my partner and I rarely play the game of love |
| 19. That involve the heavy use of flirting by both partners | 40. Where we share every secret |
| 20. Where I don’t have strong feelings about my partner | 41. Where we take turns making dates |
| 21. When he/she remembers to call when its his/her turn | 42. Where I would endure all things for the sake of my partner |

Over the next few pages, first questions ask you how often you have done specific acts with other people. Then, the same types of questions will ask how often somebody else did those things to you. Please read each item carefully.

The items below describe behaviors that sometimes occur between people. Some of the behaviors below are acceptable to some people and others are not. Using the scale below, **rate how frequently, you have done these acts since age 16.** Keep in mind that the word “sex” in every item includes genital touching and intercourse (oral sex, anal sex, and vaginal sex).

A = Never

B = Rarely

C = Sometimes

D = Often

E = Very Often

43. I played hard to get in order to get someone interested in me sexually
44. When I wanted to have sex with someone, I told them what a wonderful lover they were
45. I continued to kiss and touch someone’s body (not his or her genitals) when he/she acted like he/she didn’t want to have sex with me
46. I tried to talk someone into having sex with me by repeatedly asking or offering logical arguments
47. I removed my own clothes in order to change his/her mind about having sex
48. I have told a lie of some kind (e.g., how much I loved him/her, promised a longer relationship) in order to have sex with someone
49. I took someone to a romantic spot in hopes that they would sleep with me
50. I removed my partner’s clothes after he/she indicated that he/she didn’t want to sleep with me
51. I criticized or questioned someone’s sexuality (e.g., said he or she was gay or couldn’t perform) or attractiveness in hopes he/she would have sex with me
52. I touched myself sexually in front of my partner in order to tempt him or her when he/she had acted like he/she didn’t want to have sex with me
53. I gave someone the “silent” treatment when they wouldn’t have sex with me
54. I bought someone gifts, hoping that it would make them more sexually receptive to me
55. I threatened to leave or end the relationship when someone wouldn’t have sex with me
56. I did a strip tease in order to arouse him/her to change his/her mind about having sex
57. I told someone their refusal to have sex changed the way I felt about them
58. I continued to attempt to physically “turn my partner on” after he/she said “no” to my advance.

The items below describe behaviors that sometimes occur between people. Some of the behaviors below are acceptable to some people and others are not. Using the scale below, **rate how frequently, *you* have done these acts since age 16.** Keep in mind that the word “sex” in every item includes genital touching and intercourse (oral sex, anal sex, and vaginal sex).

A = Never	B = Once or Twice	C = Several Times	D = Often	E = Very Often
-----------	-------------------	-------------------	-----------	----------------

59. When I wanted to get someone in the mood, I whispered “sweet nothings” to them
60. I used my power or authority over someone to make them have sex with me
61. I took advantage of someone who had already been drinking because he/she wouldn’t put up as much resistance
62. I got a little drunk and used physical force to get someone to have sex with me
63. I got someone drunk or high in order to reduce his or her ability to resist my sexual advances
64. I flirted with other people in order to get my partner to have sex with me
65. I pinned someone down (sat of them, held his/her arms down) when he/she wouldn’t have sex with me
66. I dated someone younger because I thought it would be easier to get him/her to do what I wanted sexually
67. I used my hands to grip someone tightly (or used some other physical force) when he/she wasn’t giving me the sexual response I wanted
68. I threatened to use some degree of physical force with someone when he/she resisted my sexual advances
69. I wore especially sexy clothes or lingerie to entice someone to have sex with me
70. I encouraged someone to use drugs (like pot or prescription drugs) until he/she became too out of it to consent or stop what was happening
71. I tied someone up in order to reduce his/her ability to fight back
72. I initiated sexual activity with someone who was asleep or unconscious or *out of it* and could not stop what was happening
73. I blocked his/her ability to leave the room/place (for example, closed, locked, or stood blocking the door) when he/she resisted my sexual advances

74. Using the following scale, please indicate the sex of the person(s) with whom the acts above occurred (If you reported that you have never done any of these acts, please report the sex of the person(s) with whom you engage in sexual activity):

- A = only with members of the opposite sex
- B = mostly with members of the opposite sex
- C = almost equally with both sexes
- D = mostly with members of the same sex
- E = only with members of the same sex

The items below describe behaviors that sometimes occur between people. Some of the behaviors below are acceptable to some people and others are not. Using the scale below, **rate how frequently, these acts have been done to you since age 16.** Keep in mind that the word “sex” in every item includes genital touching and intercourse (oral sex, anal sex, and vaginal sex).

A = Never	B =Rarely	C = Sometimes	D = Often	E = Very Often
75. Someone played hard to get in order to get me interested in him/her sexually				
76. When someone wanted to have sex with me, he/she told me what a wonderful lover I was				
77. Someone continued to kiss and touch my body (not my genitals) when I didn't want to have sex with him/her.				
78. Someone tried to talk me into having sex with him/her by repeatedly asking or offering logical arguments				
79. Someone removed my his/her own clothes in order to change my mind about having sex				
80. Someone told me a lie of some kind (e.g., how he/she loved me, promised a longer relationship) in order to have sex with me				
81. Someone took me to a romantic spot in hopes that I would sleep with him/her				
82. Someone removed my clothes after I indicated that I didn't want to sleep with him/her				
83. Someone criticized or questioned my sexuality (e.g., said you were gay or couldn't perform) or attractiveness in hopes to have sex with me				
84. Someone touched him(her)self sexually in front of me in order to tempt me when I didn't want to have sex with him/her				
85. Someone gave me the “silent” treatment when I wouldn't have sex with him/her				
86. Someone bought me gifts, hoping that it would make me more sexually receptive to him/her				
87. Someone threatened to leave or end the relationship when I wouldn't have sex with him/her				
88. Someone did a strip tease in order to arouse me to change my mind about having sex				
89. Someone told me my refusal to have sex changed the way he/she felt about me				
90. Someone continued to attempt to physically “turn me on” after I said “no” to his/her advance.				

The items below describe behaviors that sometimes occur between people. Some of the behaviors below are acceptable to some people and others are not. Using the scale below, **rate how frequently, these acts have been done to you since age 16.** Keep in mind that the word “sex” in every item includes genital touching and intercourse (oral sex, anal sex, and vaginal sex).

A = Never B = Once or Twice C = Several Times D = Often E = Very Often

91. When someone wanted to get me in the mood, he/she whispered “sweet nothings” to me
92. Someone used his/her power or authority over me to make me have sex with him/her
93. Someone took advantage of me when I’d been drinking and couldn’t put up as much resistance
94. Someone got a little drunk and used physical force to get me to have sex with him/her
95. Someone got me drunk or high in order to reduce my ability to resist his/her sexual advances
96. Someone flirted with other people in order to get me to have sex with him/her
97. Someone pinned me down (sat on me, held my arms down) when I wouldn’t have sex with him/her
98. Someone much older than me dated me in order to be able to get me to have sex with him or her
99. Someone used his/her hands to grip me tightly (or used some other physical force) when I didn’t give him/her the sexual response he/she wanted
100. Someone threatened to use some degree of physical force with me when I resisted his/her sexual advances

(-----TURN ANSWER SHEET OVER TO SIDE 2-----)

101. Someone wore especially sexy clothes or lingerie to entice me to have sex with him/her
102. Someone encouraged me to use drugs (like pot or prescription drugs) in order to take advantage of me
103. Someone tied me up in order to reduce my ability to fight back against his/her sexual advances
104. Someone initiated sexual activity with me when I was asleep or unconscious and could not stop what was happening
105. Someone blocked my ability to leave the room/place (for example, closed, locked, or stood blocking the door) when I resisted his/her sexual advances

106. Using the following scale, please indicate the sex of the person with whom the acts above occurred (If you reported none of these acts were done to you, please report the sex of the person(s) with whom you engage in sexual activity):

A = only with members of the opposite sex
 B = mostly with members of the opposite sex
 C = almost equally with both sexes
 D = mostly with members of the same sex
 E = only with members of the same sex

Read each item carefully and rate how much you agree or disagree with each of the statements using the scale below. Some of the items refer to a specific love relationship, while others refer to your general attitudes and beliefs about love. When items ask about your “partner”, think of your idea of a perfect (i.e. ideal) partner or romantic relationship (including dates or sexual experiences).

A = Strongly Disagree B = Moderately Disagree C = Equally Disagree and Agree D = Moderately Agree E = Strongly

Agree

107. I cannot be happy unless I place my partner’s happiness before my own
108. I try to keep my lover a little uncertain about my commitment to him/her.
109. When things aren't right with my lover and me, my stomach gets upset.
110. I am usually willing to sacrifice my own wishes to let my partner achieve his/hers
111. I believe that what my lover doesn't know about me won't hurt him/her.
112. When my love affairs break up, I get so depressed that I have even thought of suicide.
113. A main consideration in choosing my partner is how he/she will reflect upon my career
114. I have sometimes had to keep two of my lovers from finding out about each other.
115. When my lover doesn't pay attention to me, I feel sick all over.
116. An important factor in choosing my partner is whether or not he/she will be a good parent
117. I can get over love affairs pretty easily and quickly.
118. Sometimes I get so excited about being in love that I can't sleep.
119. A main consideration in choosing my partner is how he/she will reflect upon my family
120. My lover would get upset if he/she knew of some of the things I've done with other people.
121. When I am in love, I have trouble concentrating on anything else.
122. Before getting involved with my partner, I’d try to figure out how compatibility his/her hereditary background would be with mine in case we ever had children
123. When my lover gets too dependent on me, I want to back off a little.
124. I cannot relax if I suspect that my lover is with someone else.
125. I enjoy playing the "game of love" with a number of different partners.

126. Have you **ever** willingly engaged in sexual activity, such as petting, sexual touching, or intercourse (that is, oral, vaginal, **or** anal sex) with someone since the age of 16?
- Yes
 - No

Using the scale below, please answer questions 127-130.

- Never
 - 1 or 2
 - 3 or 4
 - 5 or 6
 - 7 or more
127. **How many times** in the past 6 months have you purposefully searched for an “easy” potential sexual or romantic partner?
128. **How many times** do you recall starting a conversation with a romantic partner where *you* “defined rules” for that relationship since age 16?
129. **How many times** since the age of 16 have you been “head over heels in love” with someone?
130. **How many times** since the age of 16 have you initiated a discussion asking your partner to “show more feeling?”

TURN ANSWER SHEET OVER TO SIDE 1

UNDER SPECIAL CODES = LETTER K:

Which of the following *best* describes your current relationship status?

- Not dating anyone
- Casually dating
- Steadily dating
- Living together but not engaged
- Engaged
- Married

UNDER SPECIAL CODES = LETTER L:

How many months have you been dating the person you are currently seeing? (*If you are seeing more than one person use the longest relationship to answer. If you aren't seeing anyone at the moment select 0*).

- | | |
|--------------|--------------|
| 0. 0 | 5. 5 |
| 1. 1 or less | 6. 6 |
| 2. 2 | 7. 7 |
| 3. 3 | 8. 8 |
| 4. 4 | 9. 9 or more |

UNDER SPECIAL CODES = LETTER M:

Enter your race:

- American Indian or Alaska Native
- Asian
- Native Hawaiian or Other Pacific Islander
- Black or African American
- White

UNDER SPECIAL CODES = LETTER N:

Enter your ethnicity:

- Not Hispanic or Latino(a)
- Hispanic or Latino(a)

UNDER SPECIAL CODES = LETTER O

I attend religious services:

- Never
- Once a year or less
- About once a month or less
- About once a week or less
- More than once a week

UNDER SPECIAL CODES = LETTER P

Excluding your time at the University of Pittsburgh, how many years have you lived in an urban area?

- | | |
|------------------|---------------|
| 0. Never | 5. 9-10 |
| 1. Under 2 years | 6. 11-12 |
| 2. 3-4 | 7. 13-14 |
| 3. 5-6 | 8. 15-16 |
| 4. 7-8 | 9. 17 or more |

UNDER GRADE OR EDUC

Enter your age in years:

- | | |
|--------------------|---------|
| 0. Younger than 18 | 9. 26 |
| 1. 18 | 10. 27 |
| 2. 19 | 11. 28 |
| 3. 20 | 12. 29 |
| 4. 21 | 13. 30 |
| 5. 22 | 14. 31 |
| 6. 23 | 15. 32 |
| 7. 24 | 16. 33+ |
| 8. 25 | |

UNDER SEX

Enter your sex:

- Male
- Female

APPENDIX D. DEBRIEFING FORM

Thank you for participating in this study. The data you provided will be used to explore connections between feelings about love and sexual behaviors in relationships. Your information will remain completely confidential.

Below is information about love and sexual coercion:

- Most people have a favorite type of love, and this explains a lot about how they interact with their partners.
- Each type of love contains different elements. For example, some types of love involve strong desires to have your partner reciprocate your feelings and some types do not.
- Sometimes relationship partners attempt to encourage or sometimes try to force their partners into sexual activity when partners do not consent. This is called sexual coercion. Some forms of these attempts are rather common (e.g., repeatedly asking to have sex), while others are not (e.g. physically forcing someone).
- Reactions to being pressured or forced into sexual activity vary widely across individuals.
- People have different reasons for trying to coerce others into sexual activity. Some of this motivation may stem from feelings of love, while some may do it out of other motivations, like anger.

If you're interested and would like to learn more, please see the following books or articles to get started.

Hendrick, C., & Hendrick, S. (1986). A theory and method of love. *Journal of Personality and Social Psychology*, 50, 392-402.

Lee, J.A. (1976). *The Colours of Love*. Englewood Cliffs, NJ: Prentice Hall.

R.J. Sternberg & M. Barnes (Eds.). (1988). *Psychology of Love*. New Haven, CT: Yale University Press

Your participation in this survey will help to answer questions about ties between ideas about love and experiences of sexual coercion. If this survey has brought up concerns you would like to discuss with a professional counselor, please contact the counseling center at <http://www.counseling.pitt.edu/> or go in person to the University Counseling Center, 334 William Pitt Union, Pittsburgh, PA 15260, or call them at 412-648-7930.

If you have any questions, comments, or concerns about this study, you may contact the investigator listed below.

Destiny Miller
dld22@pitt.edu
(412)383-7233
3417 Sennott Square
Pittsburgh, PA 15260

**APPENDIX E. DISTRACTION ITEMS BY SOURCE AND LOCATION IN STUDY
SURVEY MEASURE**

Table 27. Distraction Items by Source and Location in Study Survey Measure

Item	Original	Source
Appears within the AIR Love Scales		
Where my partner and I have the right ‘physical chemistry’ between us	My partner and I have the right ‘physical chemistry’ between us	LAS Short Form: Eros (Hendrick, Hendrick, & Dicke, 1998)
Where I feel that my partner and I were meant for each other	I feel that my partner and I were meant for each other	
Where my partner and I really understand each other	My partner and I really understand each other	
Where my partner fits my ideal standards of physical beauty/handsomeness	My partner fits my ideal standards of physical beauty/handsomeness	
Where that love grew out of a long friendship	Our love grew out of a long friendship	LAS Short Form: Storge
Where our friendship gradually merged into love over time	Our friendship gradually merged into love over time	
Where that love is most satisfying because it developed from a good friendship	Our love is most satisfying because it developed from a good friendship	
Where love is really a deep friendship, not a mysterious mystical emotion	Our love is really a deep friendship, not a mysterious mystical emotion	
Where I would rather suffer than let my partner suffer	I would rather suffer than let my partner suffer	LAS Short Form: Agape
Where I would endure all thing for the sake of my partner	I would endure all thing for the sake of my partner	
Appears within Sexual Coercion Tactics		
I played hard to get in order to get someone interested in me sexually	I have played hard to get in order to get someone interested in me sexually	Zurbriggen: Seduce Scale (2000)
When I wanted to have sex with someone, I told them what a wonderful lover they were	When I want to have sex with someone, I tell them what a wonderful lover they are	
I took someone to a romantic spot in hopes that they would sleep with me	I have taken someone to a romantic spot in hopes that they would sleep with me	

Item	Original	Source
Appears within Sexual Coercion Tactics Scale		
I bought someone gifts, hoping that it would make them more sexually receptive to me	I have bought someone expensive gifts, hoping that it would make them more sexually receptive to me	Zurbriggen: Seduce Scale
When I wanted to get someone in the mood, I whispered “sweet nothings” to them	When I want to get someone in the mood, I whisper “sweet nothings” to them	
I flirted with other people in order to get my partner to have sex with me	I have flirted with other people in order to get my partner to have sex with me	
I wore especially sexy clothes or lingerie to entice someone to have sex with me	I have wore especially sexy clothes or lingerie to entice someone to have sex with me	
Appears within the Mania and Ludus LAS (items identical to originals)		
I cannot be happy unless I place my partner’s happiness before my own.		LAS Short
I am usually willing to sacrifice my own wishes to let my partner achieve his/hers		Form: Agape
An important factor in choosing my partner is whether or not he/she will be a good parent		LAS Short
A main consideration in choosing my partner is how he/she will reflect upon my career		Form: Pragma
A main consideration in choosing my partner is how he/she will reflect upon my family		
Before getting involved with my partner, I’d try to figure out how compatibility his/her hereditary background would be with mine in case we ever had children		

APPENDIX F. SUMMARY OF PILOT STUDY

Participants

Five male and five female participants volunteered to participate in this study. Participants were run in two small group sessions of , $n = 8$ and $n = 2$. Participants received credit in partial fulfillment of the requirements for Introductory to Psychology for their participation. Participants completed the pilot study in 31 minutes, on average.

Materials

Participants completed the survey outlined in Appendix A of the thesis proposal and a follow-up questionnaire (attached at end of Summary) assessing reactions to completely that survey. Questions in the follow-up questionnaire assessed participants' interest in the survey, energy level after completing the survey, difficulty in responding honestly on the survey, and current mood with Likert-scale response options. Open-ended question assessed participants' feelings, difficulty answering survey questions, and comments and concerns.

Results and Conclusions

Overall, participants reported favorable responses to participating in the study on forced-choice follow-up questions. On average, participants reported that the survey was moderately interesting. The group reported being a little energetic, on average, after taking the survey. I argue that “a little energetic” is acceptable after participating in a lengthy survey study. On average, participants reported it was “not at all” to “a little” difficult to be completely honest with their responses on the survey. This demonstrates that participants were able to provide honest responses. Finally, participants reported a current mood approximately halfway between “somewhat pleasant” and “equally unpleasant and pleasant” after completing the survey. Results are presented in Table 28 below.

Table 28. Forced-Choice Responses by Question

Question	Frequencies of Participants Responding by Options (n)					M
How interesting was the survey?	Not at all 1	A little 1	Moderately 5	Very 3	--	3
How energetic are you after taking the survey?	Not at all 3	A little 4	Moderately 3	Very 0	--	2
How difficult was it to be completely honest with your responses on the survey?	Not at all 7	A little 2	Moderately 0	Very 1	--	1.5
What is your current mood overall?	Very Unpleasant 0	Somewhat Unpleasant 0	Equally Unpleasant and Pleasant 5	Somewhat Pleasant 3	Very Pleasant 1	3.4

Note. To interpret means, values are “Not at all” = 1, “A little” = 2, “Moderately” = 3, “Very” = 4; “Very Unpleasant” = 1, “Somewhat Unpleasant” = 2, “Equally Unpleasant and Pleasant” = 3, “Somewhat Pleasant” = 4, and Very “Pleasant” = 5

Participants reported a mix of feelings after taking the survey (see Table 29 below). Most responses to this item were positively-valenced or neutral. Two responses may be interpretable as negatively-valenced: “I didn’t feel like some questions had an appropriate answer for me, or my answer may be misunderstood...” and “I’m a push over, I could take more control and respect for myself. I’m too needy.” Overall, feelings after participating in the survey were positive; some participants reported benefits to participating.

Table 29. Responses to “How do you feel after taking the survey?”

Participant	Response
1	I was expecting it to take a lot longer like the other one I took a few days ago, but it was surprisingly fast. I also am surprised at how much I learned from the survey. I feel like I understand myself better because I was forced to think about my actions and not just do them.
2	I didn't feel like some questions had an appropriate answer for me, or my answer may be misunderstood. I'm happy to get 2 credits though.
3	I feel good about my current relationship, but it makes me feel uncomfortable about a past experience.
4	I wish I'd taken a more interesting one but I'm glad it was short.
5	The same as before, the survey hasn't affected my mood.
6	Excellent. I always like thinking about love, and I find not enough people appreciate it.
7	I feel just fine. In reference to the above questions I am not tired or unpleasant in any way.
8	I'm a push over, I could take more control and respect for myself. I'm too needy.
9	I feel good after taking the survey. I'm not tired and I'm in a good mood.
10	I feel the same as I did before the survey. It made me think about my own relationship, and I realized that it is pretty good.

Approximately half of the participants reported no difficulty answering the survey questions. However, two participants reported some difficulty (see Table 30). Another participant felt a subset of questions on the survey were not personally applicable. Participants' responses indicated little difficulty in providing honest responses. This may alleviate concerns regarding participants' responding dishonestly given the sensitive nature of the questions on the survey.

Table 30. Responses to “Did you have any difficulties answering any questions on the survey, if so, what were the questions about?”

Participant	Response
1	I felt that it was very self explanatory and the questions were easy to answer truthfully.
2	(Answered in the previous question). some things were made to sound inappropriate, it may have just been flirting.
3	Yes, the questions I had to answer "rarely" to because of one jerk.
4	No.
5	Not too much, but 109 was difficult because I would generally say I put myself first, but in my relationship because of what he is doing now if we stay together his goals may have to come before mine due to involvement/future involvement with the military.
6	Yes, it was difficult answering questions about a person trying to seduce me because I feel it's possible a person was interested without my knowing it.
7	I had no difficulty answering the questions.
8	None.
9	No, I didn't have any difficulties answering truthfully.
10	I could not answer a couple questions about playing games of love because I do not do that.

The majority of participants reported no comments or concerns after taking the survey. However, one notable comment (see Table 31) reflects one participants' embarrassment. Another participant commented that the experience was “enlightening”.

Table 31. Responses to “Do you have any comments or concerns after taking the survey?”

Participant	Response
1	I think that this survey should be taken by the majority of college students. It wasn't very time consuming and was very enlightening.
2	No.
3	Nope, good luck with your research.
4	No.
5	No.
6	I'm pretty embarrassed and would rather not know what conclusions are drawn about me based on this survey.
7	Not a one.
8	None.
9	[Response Blank]
10	[Response Blank]

After conducting the pilot study, I do not feel any methodological changes are warranted. Few participants raised problematic issues or reported negative experiences. Surprisingly, participants reported more positive feelings and moods than was expected based upon earlier pilot testing. The reported discomforts (e.g., anger at a former lover, embarrassment) were mild and, in my opinion, justified in the sake of conducting research on a sensitive topic, such as sexual coercion.

Thank you very much for taking the survey.

Please answer the items below and then turn in your scantron and this sheet to the experimenter.

Please record the current time here: _____ Hour _____ Minutes

Please circle the choice that best describes using the following scale:

11. How **interesting** was the survey?

1	2	3	4
Not at all	A little	Moderately	Very

12. How **energetic** are you after taking the survey?

1	2	3	4
Not at all	A little	Moderately	Very

13. How **difficult** was it to be completely honest with your responses on the survey?

1	2	3	4
Not at all	A little	Moderately	Very

14. What is **your current mood**, overall?

Very Unpleasant	Somewhat Unpleasant	Equally Unpleasant and Pleasant	Somewhat Pleasant	Very Pleasant
1	2	3	4	5

Next, please provide responses in your own words to the following questions.

How do you feel after taking the survey?

Did you have any difficulties answering any questions on the survey, if so, what were the questions about?

Do you have any comments or concerns after taking the survey?

APPENDIX G. LISTING OF ITEMS IN STUDY SURVEY BY MEASURES

Table 32. Listing of Items in Study Survey by Measures

Initial AIR Love Scales	
Control	
1.	Where I can maneuver the situation
2.	With partners that are easy to trick or influence
3.	Where I can practice my persuasion skills
4.	Where I can get others to do what I want
5.	With partners that I cannot manipulate
6.	Where my partner insists on making the decisions
7.	Where my partner calls the shots
8.	Where I decide what happens in the situation
Game-Playing	
1.	Where one partners initiates and the other responds, like in a game
2.	That are played according to some type of rules, as games are
3.	Where partners do take turns playing around
4.	When my partner bluffs with a “no” when he/she really means “yes“
5.	That involve the heavy use of flirting by both partners
6.	Where I find opportunities to score points with my partner
7.	That do not involve a lot of flirting
8.	Where my partner and I rarely play the game of love
Emotional Intensity	
1.	Where I can express my strong feelings of love
2.	Where I can be swept up (overcome) by feelings
3.	Where the relationships is not very intense
4.	Where we share every secret
5.	That are an outlet for my strong desires
6.	Where I don’t have strong feelings about my partner
7.	Where our love is at the center of my life
8.	Where emotions are often intense
Reciprocity	
1.	Where My partner frequently shows his/her feelings for me
2.	Where My partner cares for me as much as I do for him/her
3.	Where my partner does not show me how he/she cares
4.	Where we take turns making dates
5.	When he/she remembers to call when its his/her turn
6.	Where I always end up making the effort to get together
7.	Where my partner returns my affections
8.	With a partner that doesn’t ask to see me frequently
Sexual Coercion Perpetration Items	
Enticement	
1.	I continued to kiss and touch someone’s body (not his or her genitals) when he/she acted like he/she didn’t want to have sex with me.
2.	I removed my own clothes in order to change his/her mind about having sex.

Sexual Coercion Perpetration Items (continued)
Enticement(continued)
3. I removed my partner's clothes after he/she indicated that he/she didn't want to sleep with me.
4. I continued to attempt to physically "turn my partner on" after he/she said "no" to my advance.
5. I did a strip tease in order to arouse him/her to change his/her mind about having sex.
6. I touched myself sexually in front of my partner in order to tempt him or her when he/she had acted like he/she didn't want to have sex with me.
Emotional Manipulation
1. I tried to talk someone into having sex with me by repeatedly asking or offering logical arguments.
2. I have told a lie of some kind (e.g., how much I liked or loved him/her, promised a longer relationship) in order to have sex with him/her.
3. I threatened to leave or end the relationship when someone wouldn't have sex with me.
4. I criticized or questioned someone's sexuality (e.g., said he or she was gay or couldn't perform) or attractiveness in hopes he/she would have sex with me.
5. I told someone their refusal to have sex changed the way I felt about him/her.
6. I gave someone the "silent" treatment when he/she wouldn't have sex with me.
Exploitation
1. I took advantage of someone who had already been drinking because he/she wouldn't put up as much resistance.
2. I got someone drunk in order to reduce his or her ability to resist my sexual advances.
3. I dated someone younger because I thought it would be easier to get him/her to do what I wanted sexually.
4. I used my power or authority over someone to make him/her have sex with me.
5. I encouraged someone to use drugs (like pot or prescription drugs) until he/she became too out of it to consent or stop what was happening.
6. I initiated sexual activity with someone who was asleep or unconscious or out of it and could not stop what was happening.
LAS Validity Items
Ludus
1. I try to keep my lover a little uncertain about my commitment to him/her.
2. I believe that what my lover doesn't know about me won't hurt him/her.
3. I have sometimes had to keep two of my lovers from finding out about each other.
4. I can get over love affairs pretty easily and quickly.
5. My lover would get upset if he/she knew of some of the things I've done with other people.
6. When my lover gets too dependent on me, I want to back off a little.
7. I enjoy playing the "game of love" with a number of different partners.
Mania
1. When things aren't right with my lover and me, my stomach gets upset.
2. When my love affairs break up, I get so depressed that I have even thought of suicide.
3. Sometimes I get so excited about being in love that I can't sleep.
4. When my lover doesn't pay attention to me, I feel sick all over.
5. When I am in love, I have trouble concentrating on anything else.
6. I cannot relax if I suspect that my lover is with someone else.

Behavioral Validity Items

1. How many times in the past 6 months have you purposefully searched for and “easy” potential sexual or romantic partner?
 2. How many times do you recall starting a conversation with a romantic partner where you “defined rules” for that relationship since age 16?
 3. How many times since the age of 16 have you been “head over heels in love”?
 4. How many times since the age of 16 have you initiated a discussion asking your partner to “show more feeling”?
-

Demographic Items

General Demographics

1. Have you ever willingly engaged in sexual activity, such as petting, sexual touching, or intercourse (that is, oral, vaginal, or anal sex) with someone since the age of 16?
 2. Which of the following best describes your current relationship status?
 3. How many months have you been dating the person you are currently seeing?
 4. Enter your race.
 5. Enter your ethnicity.
 6. I attend religious services...
 7. Excluding your time at the University of Pittsburgh, how many years have you lived in an urban area?
 8. Enter your age in years.
 9. Enter your sex:
-

Sexual Orientation

1. Using the following scale, please indicate the sex of the person(s) with whom the acts above occurred (If you reported that you have never done any of these acts, please report the sex of the person(s) with whom you engage in sexual activity)...
-

Victimization

1. Someone continued to kiss and touch my body (not my genitals) when I didn’t want to have sex with him/her.
 2. Someone tried to talk me into having sex with him/her by repeatedly asking or offering logical arguments
 3. Someone removed my his/her own clothes in order to change my mind about having sex
 4. Someone told me a lie of some kind (e.g., how he/she loved me, promised a longer relationship) in order to have sex with me
 5. Someone removed my clothes after I indicated that I didn’t want to sleep with him/her
 6. Someone criticized or questioned my sexuality (e.g., said you were gay or couldn’t perform) or attractiveness in hopes to have sex with me
 7. Someone touched him(herself) sexually in front of me in order to tempt me when I didn’t want to have sex with him/her
 8. Someone gave me the “silent” treatment when I wouldn’t have sex with him/her
 9. Someone threatened to leave or end the relationship when I wouldn’t have sex with him/her
 10. Someone did a strip tease in order to arouse me to change my mind about having sex
 11. Someone told me my refusal to have sex changed the way he/she felt about me
-

Demographic Items (continued)
Victimization (continued)
12. Someone continued to attempt to physically “turn me on” after I said “no” to his/her advance.
13. Someone used his/her power or authority over me to make me have sex with him/her
14. Someone took advantage of me when I’d been drinking and couldn’t put up as much resistance
15. Someone got me drunk or high in order to reduce my ability to resist his/her sexual advances
16. Someone much older than me dated me in order to be able to get me to have sex with him or her
17. Someone encouraged me to use drugs (like pot or prescription drugs) in order to take advantage of me
18. Someone initiated sexual activity with me when I was asleep or unconscious and could not stop what was happening
Distraction Items
LAS Scales (Eros, Pragma, Storge, and Agape)
1. Where my partner and I have the right ‘physical chemistry’ between us
2. Where I feel that my partner and I were meant for each other
3. Where my partner and I really understand each other
4. Where my partner fits my ideal standards of physical beauty/handsomeness
5. Where that love grew out of a long friendship
6. Where our friendship gradually merged into love over time
7. Where that love is most satisfying because it developed from a good friendship
8. Where love is really a deep friendship, not a mysterious mystical emotion
9. Where I would rather suffer than let my partner suffer
10. Where I would endure all thing for the sake of my partner
11. I cannot be happy unless I place my partner’s happiness before my own.
12. I am usually willing to sacrifice my own wishes to let my partner achieve his/hers
13. An important factor in choosing my partner is whether or not he/she will be a good parent
14. A main consideration in choosing my partner is how he/she will reflect upon my career
15. A main consideration in choosing my partner is how he/she will reflect upon my family
16. Before getting involved with my partner, I’d try to figure out how compatibility his/her hereditary background would be with mine in case we ever had children
Zurbiggen Seduce Scale
1. I played hard to get in order to get someone interested in me sexually
2. When I wanted to have sex with someone, I told them what a wonderful lover they were
3. I took someone to a romantic spot in hopes that they would sleep with me
4. I bought someone gifts, hoping that it would make them more sexually receptive to me
5. When I wanted to get someone in the mood, I whispered “sweet nothings” to them
6. I flirted with other people in order to get my partner to have sex with me
7. I wore especially sexy clothes or lingerie to entice someone to have sex with me
8. Someone played hard to get in order to get me interested in him/her sexually

Distraction Items (continued)
Zurbiggen Seduce Scale (continued)
9. When someone wanted to get me in the mood, he/she whispered “sweet nothings” to me
10. When someone wanted to have sex with me, he/she told me what a wonderful lover he/she was
11. Someone took me to a romantic spot in hopes that I would sleep with him/her
12. Someone bought me gifts, hoping that it would make me more sexually receptive to him/her
13. Someone flirted with other people in order to get me to have sex with him/her
14. Someone wore especially sexy clothes or lingerie to entice me into having sex with him/her
Forceful Coercion
Perpetration
1. I got a little drunk and used physical force to get someone to have sex with me
2. I pinned someone down (sat of them, held his/her arms down) when he/she wouldn’t have sex with me
3. I used my hands to grip someone tightly (or used some other physical force) when he/she wasn’t giving me the sexual response I wanted
4. I tied someone up in order to reduce his/her ability to fight back
5. I blocked his/her ability to leave the room/place (for example, closed, locked, or stood blocking the door) when he/she resisted my sexual advances
6. I threatened to use some degree of physical force with someone when he/she resisted my sexual advances
Victimization
1. Someone blocked my ability to leave the room/place (for example, closed, locked, or stood blocking the door) when I resisted his/her sexual advances
2. Someone tied me up in order to reduce my ability to fight back against his/her sexual advances
3. Someone threatened to use some degree of physical force with me when I resisted his/her sexual advances
4. Someone used his/her hands to grip me tightly (or used some other physical force) when I didn’t give him/her the sexual response he/she wanted
5. Someone pinned me down (sat on me, held my arms down) when I wouldn’t have sex with him/her
6. Someone got a little drunk and used physical force to get me to have sex with him/her
Sexual Orientation for Victimization
1. Using the following scale, please indicate the sex of the person with whom the acts above occurred (If you reported none of these acts were done to you, please report the sex of the person(s) with whom you engage in sexual activity)...

APPENDIX H. SCALES AND ITEM LEVEL ANALYSES

Table 33. Idealized Dimensions of Romantic Love Item Correlations and Forced One Factor Item Loadings

Scale Items	Factor Load- ing	Item Total <i>r</i>	Squared Multiple <i>r</i>	Inter-Item Correlations							
<i>With people I'm involved with, I prefer romantic relationships (including dates and sexual experiences)...</i>				1	2	3	4	5	6	7	8
Control ($\alpha = .74$)											
1. Where I can maneuver the situation.	.45	.30	.12	-							
2. With partners that are easy to trick or influence.	.79	.61	.44	.19	-						
3. Where I can get others to do what I want.	.81	.63	.44	.26	.44	-					
4. Where I decide what happens in the situation.	.60	.43	.21	.30	.80	.40	-				
5. With partners that I cannot manipulate. ^a	.52	.36	.14	.18	.51	.23	.49	-			
6. Where I can practice my persuasion skills.	.75	.55	.37	.16	.28	.10	.31	.23	-		
										-	
Game-Play ($\alpha = .63$)											
1. Where one partner initiates and the other responds, like in a game.	.49	.32	.12	-							
2. That are played according to some type of rules, as games are.	.37	.25	.16	.22							
3. Where partners do take turns playing around.	.53	.34	.13	.18	-						
4. That involved the heavy use of flirting by both partners. ^b	.80	.52	.55	.19	.22	-					
5. Where I find opportunities to score points with my partner.	.55	.33	.17	.19	.34	.11	-				
6. When my partner bluffs with a “no” when he/she really means “yes”.	.50	.32	.14	.25	.41	.37	.34	-			
7. That do not involve a lot of flirting. ^a	.62	.31	.48	.07	.19	.09	.30	.19	-		

Scale Items	Factor Loading	Item Total <i>r</i>	Squared Multiple <i>r</i>	Inter-Item Correlations							
<i>With people I'm involved with, I prefer romantic relationships (including dates and sexual experiences)...</i>				1	2	3	4	5	6	7	8
Reciprocity											
1. Where my partner frequently shows his/her feelings for me.	.80	.73	.61	-							
2. Where my partner cares for me as much as I do for him/her.	.86	.79	.72	.69	-						
3. Where I always end up making the effort to get together. ^a	.50	.38	.22	.28	.44	-					
4. Where my partner does not show me how he/she cares. ^a	.88	.80	.72	.70	.80	.40	-				
5. Where we take turns making dates.	.62	.51	.31	.40	.51	.23	.49	-			
6. When he/she remembers to call when its his/her turn.	.49	.38	.21	.39	.28	.10	.31	.23	-		
7. Where my partner returns my affections.	.85	.77	.63	.69	.72	.38	.69	.49	.36	-	
8. With a partner that doesn't ask to see me frequently. ^a	.68	.58	.38	.52	.48	.22	.57	.31	.37	.47	-
Emotional Intensity											
1. Where I can express my strong feelings of love.	.76	.63	.51	-							
2. Where I can be swept up (overcome) by feelings.	.67	.51	.32	.46	-						
3. That are an outlet for my strong desires.	.45	.31	.13	.25	.22	-					
4. Where our love is at the center of my life.	.59	.44	.28	.34	.34	.11	-				
5. Where emotions are often intense.	.67	.54	.33	.32	.41	.37	.34	-			
6. Where we share every secret.	.47	.37	.16	.50	.19	.09	.30	.19	-		
7. Where the relationship is not very intense. ^a	.71	.55	.35	.39	.37	.19	.41	.46	.22	-	
8. Where I don't have strong feelings about my partner. ^a	.63	.46	.40	.58	.26	.25	.12	.32	.18	.37	-

Note. ^a Reverse-scored item. ^b Best single-item on Game-Playing scale, according to factor loading, item-total correlation, and squared multiple correlation. * $p < .05$, ** $p < .01$, *** $p < .001$.

Table 34. Ideal Dimensions of Love Scale and Item Means and Reliabilities Overall and by Gender

Scale	Cronbach's α			Mean Score (SD)			
	Overall	Males Only	Females Only	Overall <i>N</i> = 270	Males <i>n</i> = 101	Females <i>n</i> = 168	<i>t</i> (267)
Control	.74	.78	.69	2.52 (0.62)	2.70 (0.66)	2.45 (0.58)	3.59***
Where I can maneuver the situation.				3.21 (0.91)	3.36 (0.88)	3.12 (0.93)	2.06*
With partners that are easy to trick or influence.				1.75 (0.94)	1.99 (1.01)	1.62 (0.87)	3.20**
Where I can get others to do what I want.				2.29 (1.05)	2.45 (1.08)	2.21 (1.02)	1.76*
Where I decide what happens in the situation.				2.83 (0.77)	3.04 (0.77)	2.70 (0.75)	3.54***
With partners that I cannot manipulate. ^a				2.75 (0.99)	2.76 (0.95)	2.74 (1.01)	0.15
Where I can practice my persuasion skills.				2.31 (1.01)	2.61 (1.00)	2.15 (0.97)	3.76***
Game-Playing	.63	.66	.59	2.93 (0.62)	3.07 (0.65)	2.84 (0.59)	2.94**
Where one partner initiates and the other responds, like in a game.				2.78 (1.12)	3.04 (1.18)	2.64 (1.06)	2.88**
That are played according to some type of rules, as games are.				1.99 (1.01)	2.13 (1.02)	1.92 (1.01)	1.67
Where partners do take turns playing around.				3.15 (1.26) ^b	3.27 (1.13)	3.07 (1.24) ^b	1.23
That involved the heavy use of flirting by both partners.				3.37 (1.12)	3.48 (1.17)	3.30 (1.10)	1.21
Where I find opportunities to score points with my partner.				3.22 (1.04) ^b	3.43 (2.42) ^b	3.10 (1.07) ^b	2.53**

Scale	Cronbach's α			Mean Score (SD)			
	Overall	Males Only	Females Only	Overall <i>N</i> = 270	Males <i>n</i> = 101	Females <i>n</i> = 168	<i>t</i> (267)
When my partner bluffs with a “no” when he/she really means “yes”.				2.20 (1.17)	2.42 (1.23)	2.07 (1.12)	2.40 ^c
That do not involve a lot of flirting. ^a				3.83 (1.02) ^b	3.77 (1.12)	3.86 (0.95) ^b	-0.63 ^c
Scale	Cronbach's α			Mean Score (SD)			
	Overall	Males Only	Females Only	Overall <i>N</i> = 270	Males <i>n</i> = 101	Females <i>n</i> = 168	<i>t</i> (267)
Reciprocity	.86	.80	.88	4.18 (0.67)	3.97 (0.62)	4.31 (0.68)	-4.14***
Where my partner frequently shows his/her feelings for me.				4.27 (0.99)	4.13 (1.06)	4.35 (0.94)	-1.80
Where my partner cares for me as much as I do for him/her.				4.64 (0.88)	4.54 (0.91)	4.70 (0.85)	-1.38
Where I always end up making the effort to get together. ^a				4.06 (1.09)	3.73 (1.14)	4.24 (1.02)	-3.70***
Where my partner does not show me how he/she cares. ^a				4.55 (0.95)	4.38 (1.02)	4.65 (0.90)	-2.22 ^{c*}
Where we take turns making dates.				3.89 (0.87)	3.76 (0.87)	3.96 (0.87)	-1.84 ^c
When he/she remembers to call when its his/her turn.				3.41 (1.15)	3.00 (1.17)	3.64 (1.08)	-4.54***
Where my partner returns my affections.				4.55 (0.79)	4.40 (0.74)	4.64 (0.81)	-2.45*
With a partner that doesn't ask to see me frequently. ^a				4.09 (0.97)	3.78 (0.92)	4.27 (0.96)	-4.13***
Emotional Intensity	.77	.77	.76	3.68 (0.37)	3.54 (0.64)	3.76 (0.62)	-2.78**
Where I can express my strong feelings of love.				4.26 (0.95)	4.12 (1.00)	4.35 (0.91)	-1.90
Where I can be swept up (overcome) by feelings.				3.52 (0.99)	3.28 (0.94)	3.67 (1.00)	-3.21**
That are an outlet for my strong desires.				3.60 (1.09)	3.61 (1.10)	3.60 (1.10)	0.13
Where our love is at the center of my life.				3.05 (1.12)	3.02 (1.10)	3.08 (1.13)	-0.45
Where emotions are often intense.				3.48 (1.01)	3.31 (1.09)	3.60 (0.95)	-2.23*

Scale	Cronbach's α			Mean Score (SD)			
	Overall	Males Only	Females Only	Overall <i>N</i> = 270	Males <i>n</i> = 101	Females <i>n</i> = 168	<i>t</i> (267)
Where we share every secret.				3.39 (1.10)	3.36 (1.10)	3.41 (1.10)	-0.41
Where the relationship is not very intense. ^a				3.67 (0.99)	3.40 (0.99)	3.83 (0.96)	-3.53***
Where I don't have strong feelings about my partner. ^a				4.46 (0.99)	4.26 (0.98)	4.59 (0.99)	-2.57*

Note. All t-tests are conducted using pairwise deletion. * $p < .05$, ** $p < .01$, *** $p < .001$. ^a Reverse-scored item. ^b Estimated using fewer data points than reported in column totals due to missing data. ^c Levene's test indicated unequal variance between males and females, *t* has been adjusted for unequal variances.

APPENDIX I. OBSERVED POWER ANALYSES

Table 35. Observed Power Analyses

		<i>Observed Univariate Power in Level of Coercion Analyses*</i>			
	Source (Multivariate Power)	<i>Control</i>	<i>Game-Playing</i>	<i>Reciprocity</i>	<i>Emotional Intensity</i>
Enticement	Gender (1.00)	.88	.90	.99	.87
	Level of Enticement Coercion (.94)	.57	.38	.41	.23
	Gender X Level of Enticement Coercion (.42)	.15	.38	.08	.11
	Age (.78)	.15	.88	.10	.06
Emotional Manipulation	Gender (.98)	.82	.64	.98	.74
	Level of EM Coercion (.99)	1.00	.69	.15	.23
	Gender X EM Coercion (.60)	.41	.11	.45	.42
	Age (.90)	.29	.95	.14	.06
	Relationship Length (.73)	.16	.53	.10	.11
Exploitation	Gender (.76)	.68	.29	.60	.62
	Level of Exploitation (.70)	.72	.52	.25	.31
	Gender X Level of Exploitation Coercion (.80)	.08	.37	.52	.09
	Age (.82)	.17	.88	.18	.06
		<i>Observed Univariate Power in Perpetrator Status Analyses*</i>			
	Source (Multivariate Power)	<i>Control</i>	<i>Game-Playing</i>	<i>Reciprocity</i>	<i>Emotional Intensity</i>
Enticement	Gender (.98)	.89	.53	.97	.81
	Enticement Status(.84)	.48	.29	.16	.36
	Gender X Enticement Status (.18)	.10	.17	.06	.05
	Age (.85)	.16	.93	.13	.06
Emotional Manipulation	Gender (.99)	.66	.60	.99	.78
	EM Status (.98)	.99	.68	.17	.05
	Gender X EM Status (.54)	.51	.15	.39	.49
	Age (.56)	.26	.93	.06	.12
	Relationship Length (.63)	.11	.46	.12	.09
Exploitation	Gender (.99)	.87	.73	.97	.81
	Exploitation Status (.74)	.83	.42	.14	.32
	Gender X Exploitation Status (.39)	.05	.06	.21	.14
	Age (.84)	.16	.92	.13	.06

*Using $\alpha = .05$.

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