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EFFECTS OF SOCIETAL NORM MANIPULATION AND PRESENTATION ORDER
ON PERCEIVED RELATIONSHIP SATISFACTION

A Thesis

Presented to

the Faculty of the Morgridge College of Education

University of Denver

In Partial Fulfillment

of the Requirements for the Degree

Master of Arts

by

Tina R. Negley

March 2013

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ORDER ON PERCEIVED RELATIONSHIP SATISFACTION
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Degree Date: March 2013

ABSTRACT

While many studies have examined the effects of persuasion on attitudes, few studies have focused on using norms to change perceived satisfaction. This study addressed the need for literature assessing the effects of societal norms on perceived relationship satisfaction. Participants in this study were randomly provided with one of two surveys: one with a set of normative statements regarding an “average couple” that were over-exaggerated, the other with understated norms. Analyses looked to identify whether individuals presented with the high norms were more likely to rate their relationship satisfaction lower, after controlling for demographic and personality characteristics. Hierarchical regression revealed that nearly all of the variance in relationship satisfaction could be explained by variability in the personality variables (self-esteem and attachment-style), resulting in a weak relationship between high/low norms and relationship satisfaction. Auxiliary analysis limited to individuals with normal self-esteem ranges identified that the high/low norms variable contributed the most to the regression model, although not statistically significant ($p = 0.172$). The bivariate correlation for this auxiliary analysis between RAS score and high/low norms ($r = -.073$) indicates that participants presented with the high normative statements rated their relationship satisfaction as lower although this correlation was not statistically significant ($p = 0.231$). Additional research is warranted, as increasing sample sizes and controlling for self-esteem prior to participation might isolate and highlight this relationship.

TABLE OF CONTENTS

Chapter One:	
Introduction	1
Statement of the problem	1
Purpose of the study	2
Literature Review	3
Dissonance	3
Attitude change	7
Self-esteem	9
Relationship satisfaction	9
Attachment	11
Limitations of attitude assessment	12
Item order and context	14
Summary	17
Chapter Two:	
Method	19
Participants	19
Materials	21
Procedure	25
Chapter Three:	
Results	28
Auxiliary analysis.....	35
Chapter Four:	
Discussion	39
References	44
Appendices	54
Appendix A	55
Appendix B	57
Appendix C	59
Appendix D	61
Appendix E	62
Appendix F	63
Appendix G	64
Appendix H	66
Appendix I	67

LIST OF TABLES

<u>Table</u>		<u>Page</u>
1	Demographic Characteristics of Pilot Study Participants	19
2	Number of Participants in Experimental Conditions	21
3	Characteristics of Study Participants	21
4	Model Summary – Full Hierarchical Regression without Outliers	30
5	Full Hierarchical Regression without Outliers	31
6	Model Summary – Hierarchical Regression without Outliers (Includes Marital Status, Self-Esteem, Attachment Style, Presentation Order, and High/Low Norms as Independent Variables)	32
7	Hierarchical Regression without Outliers (Includes Marital Status, Self-Esteem, Attachment Style, Presentation Order, and High/Low Norms as Independent Variables)	33
8	Analysis of Variance – RAS score by Attachment Style	34
9	Post Hoc Tests – RAS score by Attachment Style	34
10	Model Summary – Full Hierarchical Regression with All Participants	35
11	Full Hierarchical Regression with All Participants	36
12	Full Hierarchical Regression Including Participants with High Self-Esteem and Secure Attachment Style	38

CHAPTER ONE

INTRODUCTION

Numerous theories exist regarding the influence of social norms on individual attitudes. Most notable are focus theory and cognitive dissonance theory. Focus theory suggests that increasing the accessibility of a norm will increase the influence that norm has on behavior (Cialdini, Kallgren, & Reno, 1991; Kallgren, Reno, Cialdini, 2000). Accessibility of a norm can be temporarily increased by placing emphasis on aspects of that norm. This can be accomplished using a priming procedure, in which an individual is exposed to words or phrases related to the norm. Individuals that hold more accessible attitudes toward a particular topic are more likely to process messages about that topic (Fabrigar, Priester, Petty, & Wegener, 1998). Cognitive dissonance theory, developed by Festinger (1957), states that dissonance occurs when linked cognitions are inconsistent with one another. In order to maintain consistency among beliefs, the theory predicts that individuals will change their attitudes to avoid dissonance. Aronson (1992) furthered this idea, developing self-concept analysis, in which dissonance is believed to threaten the stability and predictability of the self-concept.

Statement of the Problem

While many studies have investigated the effects of persuasion on attitudes, this research has generally been focused on political attitudes, as well as health-related attitudes such as drug use (Rhodes & Ewoldsen, 2009; Rhodes, Roskos-Ewoldsen,

Edison, & Bradford, 2008) and risky behavior (Fisher, 2007, 2009). Nearly all research concerned with changing attitudes has been directed toward changing behaviors. Few studies have focused on using norms to change attitudes relating to satisfaction. In particular, there is a lack of literature on how societal norms and in-group persuasion effect perceived relationship satisfaction. Research on relationship satisfaction has been mostly limited to studies regarding gender differences (Stets & Hammons, 2002), effects of attachment style (Brennan & Shaver, 1995; Tucker & Anders, 1999), cohabitation effects (Skinner, Stephen, Crane, & Call, 2002), effects of divorce (Amato & Rogers, 1999), and effects of secrecy (Finkenauer & Hazam, 2000).

It is important that researchers understand and consider the effects that a variety of variables can have on attitude assessment. Studies of relationship satisfaction have failed to consider the context in which measures are presented. Significant effects of item order have been previously found in studies of attitude measures (Bossart & Di Vesta, 1966; Chen, 2010; Schuman & Presser, 1981). Item context – in particular, which items precede the target question – has also been found to significantly affect the responses of individuals on attitude assessments (Tourangeau, Rasinski, & Bradburn, 1991). Researchers need to consider the effects of context that prior questions, statements, and instructions, as well as previously administered measures and external stimuli, can have on an individual's response on an attitude measure.

Purpose of the Study

This study investigated the effects of social norms on reported relationship satisfaction. By priming individuals with statements of relationship norms, focus theory (Kallgren et al., 2000) predicts that the accessibility of these norms is increased, and that

these norms will be more likely to influence later attitudes. Manipulation of some of the norms (by over-exaggerating the characteristics of the ‘average couple’) is expected to affect the influence these norms have on attitude change. Using Festinger’s (1957) cognitive dissonance theory, it can be expected that the over-exaggerated norms will cause more dissonance within an individual, thereby increasing the likelihood of attitude change to reduce the dissonance. Individuals exposed to these inflated norms are more likely to judge their relationships as negative compared to the ‘average couple,’ while individuals exposed to understated norms are less likely to judge their relationships negatively. Past research has shown that a person’s beliefs about the average behavior of individuals within a relevant in-group are likely to influence the behavior of that person (Prentice & Miller, 1993; Terry & Hogg, 1996).

This study also explored order effects on attitude assessment. While previous studies have explored context and item order effects relating to attitude measures in general, limited focus has been directed on these effects regarding assessments of satisfaction, especially those concerning relationship satisfaction. This study hoped to provide additional evidence regarding context effects in measuring attitudes, and the variety of factors that must be considered whenever undertaking research in which attitude assessments are used.

LITERATURE REVIEW

Dissonance

Research suggests that dissonance is caused by the perception of negative consequences (Wood, 2000). Most individuals will not intentionally act in a way that will

result in harmful consequences. Individuals who perceive that their relationships are less ideal than the 'average couple' will be more likely to rate satisfaction levels as lower as a means of distancing from the potential negative consequences (failed relationships or unhappiness). Joule and Beauvois (1998) found that individuals are likely to reduce dissonance by using rationality. Relationship satisfaction would be rated lower as a result, as an individual could decrease dissonance by rationalizing that s/he isn't actually satisfied by the perceived sub-standard relationship. Stone, Wiegand, Cooper, and Aronson (1997) have also shown that individuals are likely to reduce dissonance by changing their attitudes.

Research shows that people often adopt the attitudes of in-groups, if identifying with the group is desirable (Kelman, 1958; Prislin & Wood, 2005). Exposure to the attitudes of others may influence an individual's future attitudes. These attitudes are later retrieved without identifying the originating source, and are often adopted (Betz, Skowronski, & Ostrom, 1996). It is anticipated, in this study, that individuals will read statements made regarding the 'average couple' and will accept that information as characteristic of the reference-group, drawing upon that information when later asked to judge relationship satisfaction. Smith and Louis (2009) also describe the nature of attitude change. Specifically, individuals will tend to adopt the behaviors and attitudes of group members, and will judge their actions based upon the perceived norms of the group.

Individuals are more likely to respond to threatening information which contradicts their views than information that confirms it (Ditto, Scepansky, Munro, Apanovitch, & Lockhart, 1998). This again indicates that individuals presented with

over-exaggerated norms should experience more attitude change and should be more likely to rate their relationship satisfaction as lower, compared with individuals exposed to the underinflated norms. Hogg (2000) also suggests that uncertainty about attitudes causes discomfort. Individuals will attempt to create certainty by adopting the behaviors and attitudes of reference groups.

Shin and Johnson (1978) discovered that dissatisfaction will also occur if an individual's wants are different from what that individual actually has. Individuals focus more on things they want, but do not currently have (Tesser, Martin, & Mendolia, 1995). In the current context, it is believed that individuals want an ideal relationship, which could be described as comparable to or better than that of the 'average couple.' For individuals in the over-exaggerated norms condition, dissatisfaction with the current relationship is expected to be higher, as these individuals will experience more distance between what they have and what they want. Individuals often make judgments based upon stimuli of which they are unaware, especially in situations regarding socially invested decisions (Greenwald & Banaji, 1995). If the source of influence was known, the impact would not likely occur. In fact, when individuals are made aware of the source, the influence will often be removed, and sometimes even reversed. It is hoped that by exposing individuals to statements regarding relationship norms, individuals will be influenced by the normative attitudes. Attempts will be made to keep the individuals unaware of the link between these statements and their own perceived relationship satisfaction, in order to best influence attitudinal change.

When an individual is told about a negative feature of another individual, all additional judgments made regarding that individual tend to be negative as well (Nisbett

& Wilson, 1977). While the normative statements that individuals will be exposed to in this study will not encompass all aspects of relationship functioning, it is assumed that negative feelings in even a few of the areas will lead to overall decreased relationship satisfaction. Greenwald (1980) discovered that individuals satisfied with a particular outcome are likely to attribute the success inwardly, while dissatisfaction with the outcome will lead to the individuals placing the blame on external forces. Therefore, individuals who are not satisfied with how their relationship compares to that of the 'average couple' will be less likely to assume the blame, and will generally attribute the failures to their partner and will report lower relationship satisfaction. It is likely that individuals will automatically compare their relationship with the normative statements they were exposed to. Festinger's (1954) theory of social comparison states that individuals tend to compare themselves with other individuals in order to accurately judge their own attitudes.

Based upon the theory of the looking glass, individuals evaluate themselves using the perspectives of others, and often adopt these perceptions (Sciangula & Morry, 2009). An individual who is exposed to over-exaggerated normative statements may believe that other couples have more positive relationship qualities. That individual would then consider that most couples would view her or his relationship negatively, and s/he would adopt that perspective as well. Fisher (2007) used a cover sheet to manipulate societal norms, in order to investigate whether normative influences affect an individual's willingness to report sexual activities. Fisher (2009) also staged conversations in which either permissive or conservative attitudes towards sexual behaviors were discussed.

Findings showed that individuals exposed to the permissive attitudes were more likely to report certain sexual behaviors than individuals exposed to the conservative attitudes.

Substantial research has also focused on how accurate individuals are in their perceptions of their partners (Kenny & Acitelli, 2001). Individuals are motivated to see their partners in a positive light, hiding some of the negative characteristics (Sillars & Scott, 1983). It can threaten a relationship to see a partner's negative attributes, causing an individual to devalue the relationship (Newcomb, 1953). It is likely then that individuals who realize that their partners do not measure up to normative qualities will experience lower perceived relationship satisfaction. Normative behaviors in relationships are often avoided because these topics can be considered threatening to the relationship (Baxter & Wilmot, 1985). Morry (2005) had individuals think about either a positive or a negative event concerning a particular individual. Individuals who focused on the negative event were more likely to experience dissatisfaction with the individual about whom they were thinking.

Attitude Change

The literature on attitude and behavior change is widespread and expansive, but also often contradictory. Armitage and Conner (2001) for instance, found that norms had little effect on intended behaviors. Social norms are only likely to guide behavior when attitudes are not strong (Smith & Louis, 2009). Other research, however, suggests that normative influences affect attitude change, and this is only dependent on how the persuasion is presented (Chen, Schechter, & Chaiken, 1996; Lundgren & Prislin, 1998). Early work identified that attitudes serve a variety of functions, including social adjustment and ego defense (Katz, 1960). This research suggests that attitudes will

change in order to maintain a self-view that is consistent with social values, as well as to protect one's ego. Studies have also found that individuals are likely to perceive a message as valid only if it already agrees with the attitudes those individuals hold (Greenwald & Banaji, 1995). Attention will only be given to arguments that support the positions an individual holds.

Petty and Wegener (1998) showed that messages are only persuasive if they contain strong arguments. Messages that identify normative attitudes that have not been adopted are likely to create resistance and defensibility, and will therefore have less of an effect on attitude change (Tykocinski, Higgins, & Chaiken, 1994; Marsh, Hart-O'Rourke, & Julka, 1997). Some research has shown that attitudes tend to be stable over time and context, while other research suggests that people can have various attitudes toward a single object, and these attitudes can change depending on the context (McConnel, Leibold, & Shermna, 1997).

Numerous studies have attempted to identify whether particular factors affect resistance to attitude change. Visser and Krosnick (1998) showed that age is negatively correlated with attitude change. Specifically, once an individual reaches midlife, s/he is less likely to be influenced by persuasive messages. Once an individual enters into adulthood, attitudes become more stable, and this stability increases with age (Alwin, 1993). Some studies have found that motivation is also related to attitude change. Individuals who are less motivated in life are more likely to accept societal norms and to agree with the in-group position (Baron, Vandello, & Brunzman, 1996). Studies suggest that females are more likely to be persuaded than males (Erwin, 2001).

Self-esteem

Gibbons, Eggleston, and Benthin (1997) found that self-esteem is not likely to affect attitude change, while Pelham and Swann (1989) found that individuals with higher self-esteem are less likely to be affected by negative self-concepts. Individuals with higher self-esteem are more likely, however, to consider the views and behaviors of positively perceived individuals (Greenwald & Banaji, 1995). While individuals with higher self-esteem are more likely to process the messages they are exposed to, they are also less likely to be influenced by those messages (Erwin, 2001).

Increased self-esteem decreases the gap between what an individual has and what that individual wants, therefore leading that individual to increased satisfaction with current circumstances (Wu, Tsai, & Chen, 2009). Diener and Diener (1995) also reported a strong relationship between self-esteem and satisfaction. Individuals with high self-esteem also tend to be accurate in regards to how they think their partners view them, while individuals with low self-esteem believe their partners' views are more negative than they actually are (DeHart, Pelham, & Murray, 2004). This would suggest that individuals with high self-esteem will judge their relationship satisfaction as higher.

Relationship Satisfaction

Conflicting research results have been found regarding the association between relationship duration and relationship satisfaction. Murray, Holmes, and Griffin (1996) discovered that, for individuals with high self-esteem, relationship satisfaction increases with time. Satisfaction was found to decline, however, for couples in a study conducted by Levenson and Gottman (1985). In yet another study, the length of the relationship was not found to correlate with relationship satisfaction (Finkenauer & Hazam, 2000).

Whether or not a couple has a child also has been shown to affect perceived satisfaction in a relationship. Heaton (1990) reported that couples are more likely to stay together if a child is present, but having a child appears to decrease quality time together as a couple (White, Booth, & Edwards, 1986), however, which may reduce relationship satisfaction. Education also appears to positively affect relationship satisfaction (Skinner et al., 2002). More educated individuals tend to experience higher relationship satisfaction. The effects of cohabitation on relationship satisfaction have also been examined. Couples who are currently living together but are not married report less satisfaction than couples who are married (Skinner et al.).

The effects of secrecy and disclosure on relationship satisfaction have also been investigated (Finkenauer & Hazam, 2000). Higher relationship satisfaction has often been shown in couples who engage in more disclosure (Hendrick, 1981). The effects of secrecy differ from study to study. Some research suggests that secrets are healthy in relationships, increasing relationship satisfaction (Kelly & McKillop, 1996), while other research suggests that secrecy among couples can turn into resentment, and decrease relationship satisfaction (Finkenauer & Hazam). It appears that the individual who is withholding the secret is more likely to be accepting of secrecy, and believes that secrecy contributes to the satisfaction of the relationship. When an individual feels that his or her partner is withholding a secret from them, however, secrecy is no longer viewed as beneficial and relationship satisfaction is decreased.

The effects of divorce on relationship satisfaction have also been analyzed. Skinner and colleagues (2002) reported that couples in their first marriage experienced the same relationship satisfaction as couples who have remarried. Exchange theory

predicts, however, that individuals who have been divorced or who hold favorable attitudes toward divorce would be less likely to invest in the relationship, and therefore relationship satisfaction would be lower (Amato & Rogers, 1999). The same study also found evidence that women hold more accepting attitudes toward divorce, and are more likely to be dissatisfied in a relationship.

Another factor contributing to changes in relationship satisfaction is sexual desire. Satisfaction within a relationship is increased if the couple experiences sexual satisfaction, and decreased if discrepancies in sexual desire appear between the members of the couple (Davies, Katz, & Jackson, 1999; Henderson-King & Veroff, 1993). Decreased sexual activity is often related to lower relationship satisfaction. If individuals believe that the 'average couple' engages in sexual activity more frequently than they do, it is likely that those individuals will perceive their relationship satisfaction to be lower.

Attachment

Many studies have also focused on the effects of attachment style on relationship satisfaction. Individuals with secure attachment styles like to get close in relationships, while individuals with avoidant/insecure attachment styles do not like to create close relationships (Hazan & Shaver, 1987). Individuals with anxious/ambivalent attachment styles would like to get close, but are preoccupied with the fear of being rejected (Rogers, Bidwell, & Wilson, 2005). Securely attached individuals will therefore be more likely to report higher relationship satisfaction than individuals in any of the other attachment categories. Insecure individuals may report decreased relationship satisfaction because they often negatively distort the attitudes and feelings of their partners (Feeney, Noller, & Callan, 1994).

Anxious-ambivalent individuals tend to exaggerate the positive attributes of their partner, and become too optimistic regarding the perceived satisfaction of their partner (Feeney & Noller, 1990). These individuals tend to have lower self-esteem, however, and their fear of abandonment leads to decreased relationship satisfaction. Tucker and Anders (1999) found that anxiously attached individuals had lower relationship satisfaction. Avoidantly attached men reported similar attitudes, but women with avoidant attachment styles were not significantly less satisfied in their relationships than women with secure attachments. Additional evidence suggests that individuals that are securely attached are more likely to trust their partners (Brennan & Shaver, 1995). Anxious-ambivalent and avoidant individuals tend to experience more frustration with their partners. A study by Cohen (2005) suggests that secure individuals tend to engage in relationships with other secure individuals.

Limitations of Attitude Assessment

The correlation between relationship satisfaction and such factors as self-esteem, sexual desire, attitudes toward divorce, and attachment styles present important implications in understanding the effects societal norms will have on creating attitude change. It is important to acknowledge a variety of factors that may contribute to differences in reported relationship satisfaction, and to identify limitations of this study as a result of such factors.

The measurement of attitudes presents a variety of complications, in addition to those discussed above specifically related to relationship satisfaction. Attitudes are complex in nature, and, as such, can not be directly measured using any known methodological procedure. Attitudes represent a combination of feelings, ideas, biases,

convictions, and inclinations regarding a topic, and therefore cannot be completely and accurately measured using a numerical scale (McNemar, 1946; Thurstone, 1928). It is because of this that research instead aims to measure an individual's opinions, which are verbal statements that express one's attitudes. Using opinions to assess attitudes, however, presents a number of concerns. It is difficult to ensure that the opinions expressed accurately reflect the attitude to be measured. Individuals may distort their opinions to match socially acceptable answers or they may select responses which match early responses given (Tourangeau & Rasinski, 1988). According to Thurstone, it is often the case that an individual's opinions will not match the behaviors displayed by that individual, and that the underlying attitudes of that individual may correspond with neither the verbal statements nor the physical actions.

As attitudes can only be inferred through related opinions, it is also difficult to determine the validity and reliability of measures designed to assess such attitudes (Thurstone, 1928). Reliability is usually assessed using survey studies, in which participants are asked to rate statements that are intended to represent a spectrum of possible attitudes an individual may hold. In addition, open-ended questions may be provided to ascertain whether the statements are measuring what the researchers intended. Validity, on the other hand, is usually assessed by comparing an individual's responses on several different measures. Also, group data are used to assess the variability among different respondents, and to assess any systematic trends.

The validity of attitude scales is often severely compromised in situations in which strong societal pressures are present, and sensitive materials are presented to the participant (Thurstone, 1928). In such situations, participants are more inclined to distort

their responses for fear of the consequences of providing truthful answers. For this reason, the present study attempted to limit the sensitivity of the questions asked, as well as use an anonymous format to allow for more candid and honest responses.

In order to appropriately measure attitudes, the assessment used must limit its focus to a single attitude variable (McNemar, 1946; Thurstone, 1928). Many attitudes are closely related, which presents difficulty in the assessment of a single attitude. Despite extra considerations made, however, social science research on attitude measurement often fails to capture the attitude of interest. Time constraints, as well as a lack of motivation and interest in participation, often lead respondents of surveys to provide answers based on surface factors as opposed to actually accessing underlying attitudes (Tourangeau & Rasinski, 1988).

Item Order and Context

Additional factors that can lead to changes in responses include item order and context (Schuman & Presser, 1981). Similar items presented together can interact with one another and can influence an individual's response on future items. While these changes are often temporary and do not actually affect attitudes, sometimes the changes are longer-lasting and result from within an individual's belief system (Tourangeau & Rasinski, 1988). The presentation of social norms before the attitude assessment items is expected to influence attitude and so responses to items.

Currently, evidence suggests that individuals answer questions based on what attitude they believe is being represented within those questions (Tourangeau & Rasinski, 1988). If respondents in this study were asked to only rate their relationship satisfaction, without any prior statements or questions being presented, it is likely that these

individuals would use a range of interpretations in answering. Not all respondents would define relationship satisfaction the same way, and a spectrum of constructs may actually be represented. By providing normative statements before the administration of the attitude assessment, however, respondents should have a more clearly defined context on which to base their responses. When individuals come across a general question, they may use the context of the question and other accessible information to formulate their response (Gregoire, 2003; Tourangeau et al., 2001).

Tourangeau, Rasinski, and Bradburn (1991) demonstrated this addition effect by asking respondents to rate their marital satisfaction prior to rating their overall level of happiness. Overall happiness was more likely to relate to marital happiness when the marital satisfaction items were encountered first on the assessment, suggesting respondents were more likely to use marital happiness as a cue for rating overall happiness. Similar context effects have also appeared in other studies (Bowling, Boss, Hammond, & Dorsey, 2009; Strack, Schwarz, & Gschneidinger, 1985), as well as the effect of item order on participants' responses (Bossart & Di Vesta, 1966). Respondents may use information from a specific question posed right before a more general question to form their response (Schuman & Presser, 1981). Presentation of the list of societal norms immediately preceding the measure of relationship satisfaction may make participants more likely to think about those normative statements while responding to the general relationship satisfaction questions.

Anchoring effects may also influence participants' responses. People often estimate final answers by using an initial value and then making adjustments to the starting point (Tversky & Kahneman, 1974; Zhao & Linderholm, 2008). Strack, Schwarz,

and Gschneidinger (1985) found context effects in a study of attitude assessment, where prior items were used as anchors. Participants were asked to recall either positive or negative past experiences, and then were asked to rate current life satisfaction.

Individuals rated their current satisfaction as more positive when recalling negative past experiences, and as more negative when recalling positive past experiences. In this current study, participants who are presented with the over exaggerated norms may not only compare the statements to their own circumstances, but may also reflect on how their relationships have changed over time.

Item order effects often fall into two categories: primacy and recency effects.

Primacy effects are observed when information presented first influences later responses more than information presented last (Anderson & Jacobson, 1965). Bossart and Di Vesta (1966) discovered that adjectives presented first in a list were more likely to influence an individual's perception of someone than adjectives presented at the end of the list.

Recency effects, on the other hand, occur when information presented immediately prior to the item is more likely to influence the individual's response than information presented earlier (Crano, 1977). Recency effects are more often found in situations in which participants are presented information in several short sections and are given the chance to respond after each section (Hogarth & Einhorn, 1992).

For this study item order will be varied for both the high and low normative conditions. One variation of the survey will present the normative statements first, prior to any other information, while the other variation will present the normative statements later in the survey, immediately preceding the relationship satisfaction questionnaire. These variations will help to determine whether item order and context effects contribute

to the influence that the normative statements may have on an individual's rating of his or her relationship satisfaction.

SUMMARY

Ultimately, little is known about the influence of normative statements on relationship satisfaction. This study sought to assess the effects of normative statements on attitudes, and to identify whether the influence will affect relationship satisfaction. It was predicted that individuals who encounter over-exaggerated normative statements would rate their relationship satisfaction as lower than individuals who encounter deflated norms. The demographic variables of age, gender, education, and marital status were used as control variables in order to account for the influence, if any, these variables may have on attitude and relationship satisfaction. Prior research indicates that individuals who are older will show less attitudinal change, and males are less likely to be influenced by societal norms. Also, individuals with higher levels of education should experience less attitude change and greater relationship satisfaction than individuals with lower levels of education. Additionally, the self-esteem of an individual, and whether an individual has been previously divorced will be considered. There is contradictory evidence regarding whether self-esteem will influence attitude changes, but for this study it was predicted that individuals with higher self-esteem would be more likely to rate their relationships higher. On the other hand, individuals who have previously been divorced are predicted to rate their relationship satisfaction lower. The attachment style of each individual was also assessed, in order to eliminate biases in the results, in which securely attached individuals are more likely to report greater relationship satisfaction.

Not only would this study strengthen current implications that context and item order have significant effects on attitude assessment, but this study was also intended to provide information regarding the influence of societal norms. Currently, no studies exist in which normative statements are considered for their effects on attitude assessment. If significant, these results may provide new implications concerning the administration of attitude assessments. Personal statements made by survey administrators and interviewers, casual conversations amongst participants prior to or during the study, as well as current news stories may influence the answers that respondents provide if they are inadvertently exposed to opinions mistaken as general consensus. While this study cannot make any claims regarding those topics, the results may warrant future studies on additional factors that may affect the assessment of attitudes.

Differences were expected in response patterns for participants exposed to over-exaggerated norm statements as compared to participants exposed to deflated norm statements. There was concern that these differences would only reflect surface response changes, but it is hoped that design controls would in part alleviate this concern. Specifically, participants were graduate students who are presumed to possess greater motivation (as many are working on research projects themselves and may be more inclined to provide honest and thoughtful responses). Also, using an online survey structure helped to alleviate time constraints and hopefully allow respondents to reflect more on their responses. Both of these factors were expected to contribute to greater accessibility of attitudes in responding to this survey.

CHAPTER TWO

METHOD

Participants

Pilot Study

A convenience sample was obtained of individuals currently in a romantic relationship. Participants included peers, family, and co-workers of the researcher. The participants ranged in age from 27 to 65 years, with an average age of 49 years. Table 1 provides a description of the pilot study participants by gender, marital status, relationship duration, and education level. These participants were asked to complete a survey, the results of which would be used to develop low and high normative statements.

Table 1

Demographic Characteristics of Pilot Study Participants

		Number of Participants
Gender	Male	7
	Female	10
Marital Status	In a Relationship	4
	Married	13
Relationship Duration	1 to 5 years	3
	5+ years	14
Education Level	HS Diploma/GED	6
	Associate/Technical School	7
	Undergraduate	2
	Graduate	2

Relationship Satisfaction Study

Participants were limited to individuals currently in a romantic relationship, in which the relationship had been occurring for longer than six months. Random assignment was used to determine which students received which version of the survey: low norms – variation 1; low norms – variation 2; high norms – variation 1; high norms – variation 2. Electronic links to the study were distributed through online communications (Facebook, email), and participation was open to any individuals meeting the study requirements. Upon opting to participate in the study, respondents were randomly presented with one of four survey versions. In total, 254 individuals clicked on the survey link, and electronically consented to participation in this study. Nineteen of these individuals exited the survey prior to completion, however, and their results were removed from the analyses. An additional five participants elected to withdraw their responses after debriefing, and their responses were removed from all analyses as well. Upon analysis, eight participants were identified as not meeting eligibility requirements (relationship duration less than six months), and their surveys were also removed. This resulted in 222 participants included in the relationship satisfaction study. Participants ranged in age from 18 years to 65 years, with an average age of 33 years. Table 2 shows a breakdown of the remaining participants within each of the conditions. Table 3 provides a description of the participants by study variables.

Table 2

Number of Participants in Experimental Conditions

		Experimental Condition	
		Low norms	High norms
Survey Presentation*	Variation 1	52	58
	Variation 2	53	59

* Variation 1 of the survey is presented in the following order: normative statements, self-esteem, attachment style, relationship satisfaction, and demographic variables.

* Variation 2 of the survey was presented in the following order: self-esteem, attachment style, normative statements, relationship satisfaction, and demographic variables.

Table 3

Characteristics of Study Participants

		Number of Participants
Gender	Male	41
	Female	181
Marital Status	In a Relationship	110
	Married	112
Children living at home	Yes	67
	No	155
Education Level	HS Diploma/GED	37
	Associate/Technical School	29
	Undergraduate	87
	Graduate	69
Relationship Duration	6 months – 1 year	27
	1 year – 5 years	85
	5+ years	110

Materials

Pilot Study

In order to create reasonable and believable statements regarding the behaviors and feelings of an average couple, a pilot study was conducted. All participants were first presented with a brief project information sheet informing them of the nature and

anonymity of the survey (see Appendix B). Individuals in romantic relationships were presented with a list of eight statements in which the values were left blank (see Appendix A). For instance, one item was *The average couples goes on ___ romantic dates a year*. Respondents were asked to provide two values for the blank in each statement – a value they considered to be too low for the average couple, and a value they considered to be too high. Respondents were encouraged to keep responses reasonable, in order to ensure that the statements seemed believable. Average values were calculated, and high and low normative statements were created for use in the study.

Relationship Satisfaction Study

An online survey was used to elicit information on demographic variables, self-esteem, attachment style, and relationship satisfaction. Within both the high and low norms groups, participants were randomly assigned two variations of the survey. All participants were first presented with a brief project information sheet informing them of the anonymity of the survey (see Appendix C). Half of the group received the survey in the following order (variation 1): normative statements, self-esteem, attachment style, relationship satisfaction, and demographic variables. The other half were given the survey in the following order (variation 2): self-esteem, attachment style, normative statements, relationship satisfaction, and demographic variables. Four versions of the survey were therefore distributed: low norms - variation 1; low norms – variation 2; high norms – variation 1; high norms – variation 2. Two variations of survey order were administered in order to evaluate the possible measure order and context effects. In particular, the two variations were created to examine primacy and recency effects within the study.

The self-esteem portion of the survey was based upon Rosenberg's (1965) Self-Esteem Scale. This scale consists of ten items, rated on a four-point scale from *strongly agree* to *strongly disagree* (see Appendix D). Sample items include "I feel that I have a number of good qualities" and "I feel I do not have much to be proud of." Test-retest reliability of the scale was .85 (Robinson & Shaver, 1973). Convergent validity was between .56 and .83 with similar clinical assessment measures. The scale use has been widespread.

Attachment style was assessed using the descriptions of the three types of attachment styles developed by Hazan and Shaver (1990). This is one of the most widely used measures of adult attachment. Participants were instructed to select the description they most identified with. The three descriptions corresponded with secure, avoidant, and anxious-ambivalent attachment styles (see Appendix E). A portion of the secure attachment item, for example, states "I find it relatively easy to get close to others and am comfortable depending on them." Test-retest reliability of this measure ranged from .56 to .68 (Shaver & Brennan, 1992). Convergent validity of the secure attachment group was .20 for relationship satisfaction and .23 for intimacy (Levy & Davis, 1988). Divergent validity of the anxious/ambivalent and avoidant attachment groups for relationship satisfaction was .18 and .24, respectively, and for intimacy was .23 and .30. Although validity coefficients are relatively low, this is the most widely-accepted and used measure for adult attachment. It is important to have a measure of adult attachment in order to help control for the effects of attachment style on participants' ratings of relationship satisfaction.

Relationship satisfaction was evaluated using the Relationship Assessment Scale (RAS), a 7-item scale employing a rating-scale response (Hendrick, 1988). This scale is

based on a previous 5-item Marital Assessment Questionnaire. Items on the measure include *In general, how satisfied are you with your relationship?* and *How many problems are there in your relationship?* (see Appendix F). Convergent validity was .60 for the Eros (passionate love) portion of The Love Attitudes Scale, and .24 for self-esteem and .55 for commitment. Even more significant, convergent validity was 0.80 with the Dyadic Adjustment Scale, a widely used measure of satisfaction in married couples. Study results indicate that the items of the RAS are moderately correlated with one another and the overall score is significantly correlated with relationship measures (Love Attitudes Scale) and with satisfaction measures (Dyadic Adjustment Scale). Hendrick (1988) recontacted 30 of the 31 couples originally sampled in order to ascertain how many of the couples were still together. An ANOVA was performed comparing the original RAS scores of the couples still together and the scores of the couples no longer together. The two groups differed significantly on the RAS ($p < .0001$) in the expected direction. Test-retest reliability for the RAS was 0.74 for romantic partners (Renshaw et al., 2011).

Societal norms were presented in two versions, created from the pilot study (see Appendix G). One version included normative statements about the ‘average couple’ in which behaviors were over-exaggerated (high norms). Another version included similar normative statements, but the behaviors were understated (low norms).

Demographic variables included questions regarding gender, age, relationship duration, marital status, and educational level (see Appendix H).

Procedure

Pilot Study

Participants were contacted by e-mail with the opportunity to participate in the pilot study portion of this research project. Individuals were instructed to respond only if they were currently in a romantic relationship lasting longer than 6 months. Participants were provided with an electronic link leading them to the pilot survey on Qualtrics (www.qualtrics.com). Qualtrics is a website designed for creating and sending surveys, and gathering data collected from respondents. Up-to-date firewalls keep data and account information secure and private. Participants were notified of the purpose of the pilot study, and made aware that their responses would directly influence the values used on the normative statements for the relationship satisfaction portion of this study. Individuals were encouraged to keep responses reasonable and believable.

Participants were informed that the survey was completely anonymous. Qualtrics allows the researcher the option to make sure that all responses are anonymous, ensuring that a respondent's e-mail and IP address are never stored or paired with the responses. Participants were also informed that, if at any point during the survey they felt uncomfortable or did not wish to answer a question, they could choose to leave a question blank or could quit the survey at any time. In order to begin the survey, all participants were required to review an online consent form. They were given the option to select a button either confirming consent and beginning the survey or denying consent and exiting the website.

Upon completion of the survey, participants were given contact information and were provided with the opportunity to receive a copy of the results of the study once the

study was completed. All participants were asked not to discuss the items and information on the survey with other individuals, in an attempt to reduce bias.

Any participants who did not respond to the survey within two weeks of the initial e-mail and who did not opt out of further communications were contacted again to encourage participation. Qualtrics can be used to send out uniquely coded links to the surveys which allow identification of which individuals have and have not responded, while keeping this information secure from the researcher. This allows the researcher to send out additional reminders for the survey without compromising anonymity.

Using Qualtrics, the data were exported into SPSS, a statistical computing program. Averages were computed for both the low and high norm values, and the average value for each response was used to create the normative statements for the relationship satisfaction portion of this study.

Relationship Satisfaction Study

Participants were contacted via electronic links distributed through online communications (Facebook, email), and participation was open to any individuals meeting the study requirements. Individuals were notified that the study was concerning relationship satisfaction. Individuals were instructed only to participate if they were currently in a relationship lasting longer than six months, and at least 18 years of age. Each individual wishing to participate could click the supplied internet link, which directed them to an online version of survey through Qualtrics (www.qualtrics.com). Qualtrics randomly assigned each participant to one of the four survey versions.

As in the pilot study, participants were made aware of the fact that the survey was completely anonymous. They were encouraged to answer all questions, but informed that

they could leave any questions blank or quit the survey at any time. In order to begin the survey, all participants were required to review an online consent form.

Upon completion of the survey, participants were debriefed regarding the intention of the study. Due to the deception regarding the normative statements, participants were given the opportunity to withdraw their responses to the survey, and were also provided with contact information for the University of Denver's Health and Counseling Center in cases of undue distress.

Participants were given contact information for the researcher and were provided with the opportunity to receive a copy of the results of the study once the study was completed. All participants were asked not to discuss the items and information on the survey with other individuals.

Using Qualtrics, the data were exported into SPSS. Hierarchical regression was used to determine whether statistically significant results were found between the relationship satisfaction responses of participants exposed to the high norms and of those exposed to the low norms, after controlling for gender, marital status, education, attachment style, and measure order and context effects.

CHAPTER THREE

RESULTS

Prior to running a hierarchical regression the data were analyzed to determine the presence of any outliers. Demographic variables, as well as the self-esteem, attachment style, and relationship satisfaction variables, were considered for outliers. Any individual falling outside of two standard deviations from the mean for any of the variables was flagged as an outlier. A total of 39 participants were considered outliers on at least one of the variables. It was decided that the following analyses would proceed with the remaining 183 participants not considered outliers.

To address the hypothesis, a hierarchical regression was performed with Relationship Assessment Scale (RAS) score as the dependent variable, and the following as the independent variables: educational level, gender, whether children live at home, marital status, age, previous divorce status, relationship duration, self-esteem, attachment style, presentation order, and whether high or low normative statements were presented. Independent variables were entered into the hierarchical regression in blocks. The first block consisted of the demographic variables, as research suggests that these variables influence both relationship satisfaction and susceptibility to external attitude change. The second block entered the self-esteem and attachment style variables, which were used to measure personality information. Research also suggests that these variables influence attitude change and relationship satisfaction. The third block added in the presentation

order variable, to determine whether presenting the normative statements first in the survey, or immediately prior to the RAS questions, would influence how participants rated their relationship satisfaction. Finally, the last block added in the normative statements variable. As a final step, this assessed whether individuals presented with the high normative statements would rate their relationship satisfaction as lower compared to those individuals presented with the low normative statements, after controlling for all previous variables.

The model summary provided by SPSS indicates that the demographic variables did not significantly predict an individual's RAS score ($p = .122$). The addition of the personality variables was also non-significant when looking at the R^2 change ($p = .367$). The R^2 change after adding in the presentation order variable was highly non-significant ($p = .893$), indicating that presentation order did not contribute to RAS score. The final block considered whether the normative statements influenced RAS score after controlling for all previous variables. The R^2 change was not significant ($p = .237$) which suggests that RAS score was not influenced by whether individuals were presented with the high or low normative statements. The overall model consisting of all four blocks was non-significant ($p = .202$), which implies that RAS score was not reliably predicted from the combination of all the independent variables. The model was strongest, though still not significant, when only using the demographic variables ($p = .122$). Tables 4 and 5 below present the model summary and ANOVA results for this hierarchical regression.

Table 4

*Model Summary – Full Hierarchical Regression without Outliers***Model Summary**

Model	Change Statistics								
	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change
1	.458 ^a	.210	.090	3.74236	.210	1.746	7	46	.122
2	.495 ^b	.245	.091	3.74027	.035	1.026	2	44	.367
3	.495 ^c	.245	.070	3.78270	.000	.018	1	43	.893
4	.520 ^d	.270	.079	3.76345	.025	1.441	1	42	.237

a. Predictors: (Constant), 7. Please indicate your highest level of education completed., Duration of Relationship in Months, 1. Please indicate your gender., 5. Have you ever been divorced?, 6. If yes, please indicate the number of children currently living with you., 4. Are you currently married?, 2. What is your age, in years?

b. Predictors: (Constant), 7. Please indicate your highest level of education completed., Duration of Relationship in Months, 1. Please indicate your gender., 5. Have you ever been divorced?, 6. If yes, please indicate the number of children currently living with you., 4. Are you currently married?, 2. What is your age, in years?, Total score on Self-Esteem Scale, Secure Attachment

c. Predictors: (Constant), 7. Please indicate your highest level of education completed., Duration of Relationship in Months, 1. Please indicate your gender., 5. Have you ever been divorced?, 6. If yes, please indicate the number of children currently living with you., 4. Are you currently married?, 2. What is your age, in years?, Total score on Self-Esteem Scale, Secure Attachment, Norms First or Near Middle

d. Predictors: (Constant), 7. Please indicate your highest level of education completed., Duration of Relationship in Months, 1. Please indicate your gender., 5. Have you ever been divorced?, 6. If yes, please indicate the number of children currently living with you., 4. Are you currently married?, 2. What is your age, in years?, Total score on Self-Esteem Scale, Secure Attachment, Norms First or Near Middle, High or Low Norms

Table 5

*Full Hierarchical Regression without Outliers*ANOVA^e

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	171.184	7	24.455	1.746	.122 ^a
	Residual	644.242	46	14.005		
	Total	815.426	53			
2	Regression	199.881	9	22.209	1.588	.149 ^b
	Residual	615.544	44	13.990		
	Total	815.426	53			
3	Regression	200.146	10	20.015	1.399	.213 ^c
	Residual	615.280	43	14.309		
	Total	815.426	53			
4	Regression	220.556	11	20.051	1.416	.202 ^d
	Residual	594.870	42	14.164		
	Total	815.426	53			

^{a,b,c,d} Refer to variables in model listed in footnote to Table 4.

Additional analyses were conducted to examine whether RAS score could be more reliably predicted with a smaller set of independent variables. To determine which variables would be used in this hierarchical regression, bivariate correlations were analyzed. RAS score was significantly correlated with self-esteem, secure attachment, and marital status ($p < 0.05$ for all correlations).

Based on these correlations, a second hierarchical regression was run with marital status as the only demographic variable. The first block, consisting of only the marital status variable, was statistically significant ($p < 0.005$) as expected per the strong correlation between this variable and RAS score. The addition of the personality variables in the second block was also significant ($p < 0.005$), indicating self-esteem and

attachment style significantly predicted RAS score after controlling for the relationship between RAS score and marital status. Blocks three and four, however, which added in the presentation order and normative statements variables, did not significantly contribute to the R^2 change ($p = .292$ and $p = .186$, respectively). The regression model was strongest, and significant ($p < 0.005$) when using only the demographic and personality variables. While the model was still significant when considering the presentation order and normative statements variables, results suggest that those two variables did not significantly increase prediction of RAS score above and beyond the demographic and personality variables. Tables 6 and 7 below provide the hierarchical regression model summary and ANOVA results.

Table 6

Model Summary – Hierarchical Regression without Outliers (Includes Marital Status, Self-Esteem, Attachment Style, Presentation Order, and High/Low Norms as Independent Variables)

Model Summary

Model	Change Statistics								
	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change
1	.226 ^a	.051	.046	4.31675	.051	9.321	1	173	.003
2	.407 ^b	.165	.151	4.07218	.114	11.702	2	171	.000
3	.413 ^c	.171	.151	4.07078	.005	1.118	1	170	.292
4	.424 ^d	.179	.155	4.06170	.009	1.761	1	169	.186

a. Predictors: (Constant), 4. Are you currently married?

b. Predictors: (Constant), 4. Are you currently married?, Total score on Self-Esteem Scale, Secure Attachment

c. Predictors: (Constant), 4. Are you currently married?, Total score on Self-Esteem Scale, Secure Attachment, Norms First or Near Middle

d. Predictors: (Constant), 4. Are you currently married?, Total score on Self-Esteem Scale, Secure Attachment, Norms First or Near Middle, High or Low Norms

Table 7

Hierarchical Regression without Outliers (Includes Marital Status, Self-Esteem, Attachment Style, Presentation Order, and High/Low Norms as Independent Variables)

ANOVA^e

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	173.692	1	173.692	9.321	.003 ^a
	Residual	3223.736	173	18.634		
	Total	3397.429	174			
2	Regression	561.793	3	187.264	11.293	.000 ^b
	Residual	2835.636	171	16.583		
	Total	3397.429	174			
3	Regression	580.313	4	145.078	8.755	.000 ^c
	Residual	2817.116	170	16.571		
	Total	3397.429	174			
4	Regression	609.365	5	121.873	7.387	.000 ^d
	Residual	2788.064	169	16.497		
	Total	3397.429	174			

^{a,b,c,d} Refer to variables in model listed in footnote to Table 6.

As a secondary analysis, a hierarchical regression was conducting using all 222 participants, including those individuals with outliers on the selected variables. Appendix I presents the correlation matrix for all variables, with the entire participant sample. The full regression (using all demographic and personality variables, as well as presentation order and normative statements), was run. The overall model was statistically significant ($p < 0.005$), but only the personality variables significantly contributed to the model (R^2 change $p = .001$), as supported by the bivariate correlations. Self-esteem was negatively correlated with RAS, and there was a significant relationship between attachment style and RAS as well (presented with an ANOVA and post hoc tests in Tables 8 and 9).

Table 8

Analysis of Variance – RAS score by Attachment Style

ANOVA

Total score on RAS

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	657.651	2	328.825	11.383	.000
Within Groups	6182.027	214	28.888		
Total	6839.677	216			

Table 9

Post Hoc Tests – RAS score by Attachment Style

Scheffe Post Hoc Test

Total score on RAS

(I) Attachment Style	(J) Attachment Style	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Secure	Avoidant	2.93265*	.83517	.002	.8740	4.9913
	Anxious / Ambivalent	4.51249*	1.13748	.001	1.7086	7.3164
Avoidant	Secure	-2.93265*	.83517	.002	-4.9913	-.8740
	Anxious / Ambivalent	1.57984	1.24238	.447	-1.4826	4.6423
Anxious / Ambivalent	Secure	-4.51249*	1.13748	.001	-7.3164	-1.7086
	Avoidant	-1.57984	1.24238	.447	-4.6423	1.4826

*. The mean difference is significant at the 0.05 level.

These results suggest a similar a pattern, and indicate a weak, non-significant relationship between RAS score and normative statements, after controlling for personality and demographic variables. Results indicate that the null hypothesis could not be rejected, and that relationship satisfaction is not significantly influenced by either the information

presented in the normative statements or the order in which the statements are viewed.

Below, Tables 9 and 10 present results from the full hierarchical regression including all participants.

Table 10

Model Summary – Full Hierarchical Regression with All Participants

Model	Change Statistics								
	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change
1	.373 ^a	.139	.049	5.58636	.139	1.547	7	67	.167
2	.555 ^b	.308	.212	5.08562	.169	7.922	2	65	.001
3	.556 ^c	.309	.201	5.12215	.001	.076	1	64	.784
4	.582 ^d	.338	.223	5.05051	.030	2.829	1	63	.098

a. Predictors: (Constant), 7. Please indicate your highest level of education completed., 1. Please indicate your gender., 6. If yes, please indicate the number of children currently living with you., 4. Are you currently married?, 2. What is your age, in years?, 5. Have you ever been divorced?, Duration of Relationship in Months

b. Predictors: (Constant), 7. Please indicate your highest level of education completed., 1. Please indicate your gender., 6. If yes, please indicate the number of children currently living with you., 4. Are you currently married?, 2. What is your age, in years?, 5. Have you ever been divorced?, Duration of Relationship in Months, Total score on Self-Esteem Scale, Secure Attachment

c. Predictors: (Constant), 7. Please indicate your highest level of education completed., 1. Please indicate your gender., 6. If yes, please indicate the number of children currently living with you., 4. Are you currently married?, 2. What is your age, in years?, 5. Have you ever been divorced?, Duration of Relationship in Months, Total score on Self-Esteem Scale, Secure Attachment, Norms First or Near Middle

d. Predictors: (Constant), 7. Please indicate your highest level of education completed., 1. Please indicate your gender., 6. If yes, please indicate the number of children currently living with you., 4. Are you currently married?, 2. What is your age, in years?, 5. Have you ever been divorced?, Duration of Relationship in Months, Total score on Self-Esteem Scale, Secure Attachment, Norms First or Near Middle, High or Low Norms

Table 11

*Full Hierarchical Regression with All Participants***ANOVA^e**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	337.849	7	48.264	1.547	.167 ^a
	Residual	2090.897	67	31.207		
	Total	2428.747	74			
2	Regression	747.619	9	83.069	3.212	.003 ^b
	Residual	1681.127	65	25.863		
	Total	2428.747	74			
3	Regression	749.614	10	74.961	2.857	.005 ^c
	Residual	1679.132	64	26.236		
	Total	2428.747	74			
4	Regression	821.767	11	74.706	2.929	.003 ^d
	Residual	1606.980	63	25.508		
	Total	2428.747	74			

^{a,b,c,d} Refer to variables in model listed in footnote to Table 8.

It is important to note that many of the independent variables did not meet criteria for normality. Specifically, the skewness and kurtosis were considered significantly high ($p < 0.05$) for all of the interval scale variables: self-esteem, age, and relationship duration. Therefore, the results of the hierarchical regressions must be interpreted with caution.

Auxiliary Analysis

Additional research could consider using a sample of individuals with high self-esteem and secure attachment styles. This may help control the drastic fluctuations in RAS score correlated with these variables. Isolation from the personality variables may

highlight stronger relationships between RAS score and the demographic variables as well as the influence of the societal norms. To address this, a subset of participants were used in the current study who all reported secure attachment styles and received scores greater than or equal to 15 on Rosenberg's Self-Esteem Scale (considered in the normal range). A total of 108 participants were included in this analysis. The hierarchical regression model included all demographic variables in the first block, the presentation order variable in the second block, and the high/low norms variables in the third and final block. Table 10 provides the model summary for this regression, which indicates that none of the blocks significantly contributed to the R^2 change of the regression model. Though the results were non-significant, the block which contributed the most to the regression model was the high/low norms variable (R^2 change, $p = 0.172$). The bivariate correlation, for this auxiliary analysis, between Relationship Assessment Scale score and high/low norms ($r = -.073$) indicates that, after controlling for the personality variables, participants presented with the high normative statements rated their relationship satisfaction as lower than participants presented with the low normative statements, although this correlation was not statistically significant ($p = 0.231$).

Table 12

Full Hierarchical Regression Including Participants with High Self-Esteem and Secure Attachment Style

Model Summary

Model	Change Statistics								
	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change
1	.436 ^a	.190	-.028	4.05093	.190	.871	7	26	.542
2	.451 ^b	.204	-.051	4.09651	.014	.425	1	25	.521
3	.514 ^c	.264	-.011	4.01808	.061	1.986	1	24	.172

a. Predictors: (Constant), 7. Please indicate your highest level of education completed., 1. Please indicate your gender., Duration of Relationship in Months, 5. Have you ever been divorced?, 6. If yes, please indicate the number of children currently living with you., 4. Are you currently married?, 2. What is your age, in years?

b. Predictors: (Constant), 7. Please indicate your highest level of education completed., 1. Please indicate your gender., Duration of Relationship in Months, 5. Have you ever been divorced?, 6. If yes, please indicate the number of children currently living with you., 4. Are you currently married?, 2. What is your age, in years?, Norms First or Near Middle

c. Predictors: (Constant), 7. Please indicate your highest level of education completed., 1. Please indicate your gender., Duration of Relationship in Months, 5. Have you ever been divorced?, 6. If yes, please indicate the number of children currently living with you., 4. Are you currently married?, 2. What is your age, in years?, Norms First or Near Middle, High or Low Norms

CHAPTER FOUR

DISCUSSION

Hierarchical regression results suggest that the presentation of the normative statements did not significantly influence relationship satisfaction. Many factors may have contributed to the failure to find a statistically significant relationship between these variables. Most importantly, strong relationships between RAS score and the personality variables (specifically self-esteem), indicate that relationship satisfaction can be reliably predicted by these personality variables alone. This strong relationship limits the possibility that any other additional variables would significantly contribute to the regression model.

These results agree with those found in previous research, as indicated in the literature review. Individuals with low self-esteem and insecure attachment styles tend to rate their relationship satisfaction as lower than other individuals. It is likely that these individuals already perceive their relationships as significantly less satisfying, and therefore it may be difficult for them to adjust their satisfaction ratings when creating comparisons to societal norms. Many of the predicted relationships between the independent variables and RAS score were not statistically significant. As predicted by previous research, a prior history of divorce, lower educational level, current marriage, and children living at home all correlated negatively with RAS score, indicating that relationship satisfaction is decreased with these variables. Age and relationship duration

also correlated negatively with RAS score. However, none of these correlations were significant.

Also as suggested by previous research, self-esteem and attachment style correlated positively with RAS score. Individuals with higher self-esteem and more secure attachment styles tend to rate their relationship satisfaction higher. Though not statistically significant, it is important to note that the hierarchical regressions run without outliers indicate a negative relationship between RAS score and the norms condition. Specifically, the regression coefficient ($\beta = -0.8$) for social norms presented (low=0 and high=1), indicates that individuals presented with the high norm conditions rated their relationship satisfaction as slightly lower than individuals presented with the low norm conditions. This relationship was not significant, however, and contributed to less than a point difference in RAS score. This non-significance suggests that self-esteem and attachment style contribute heavily to the regression model, leaving little variance to be explained by the high/low norms. Additionally, the relationship between presentation order and RAS score was non-significant, indicating that whether the societal norms were viewed first in the survey, or immediately prior to the RAS, did not influence an individual's relationship satisfaction rating. As conflicting research suggests, both primacy and recency effects may contribute to attitude persuasion. Individuals presented with the normative statements first may have retained the information at the forefront, allowing them to recall the statements when rating their relationship satisfaction. On the other hand, individuals presented with the normative statements immediately prior to the relationship satisfaction questions may have also given high consideration for those statements when responding. It is possible that the statements stood out amongst all other

components of the survey, and therefore presentation order did not affect the influence of these statements on relationship satisfaction.

Although results of the auxiliary analysis were not statistically significant, further research should still be pursued. The negative trend in the bivariate correlation between RAS score and high/low norms might indicate that societal norms influence an individual's perception of relationship satisfaction. The small magnitude of the correlation could be attributed to the small subset of participants eligible for this analysis (small sample size), and as such warrants further investigation. In addition, since this analysis was conducted post-hoc it may result in a different sample of participants than if self-esteem had been controlled for prior to the study. Some of the participants in this study were presented with the normative statements prior to completing the self-esteem scale, making it impossible to ascertain whether the societal norms may have influenced some of the participants' self-esteem ratings. Further research would allow for participants to be assessed on the self-esteem scale prior to participating in the normative statements study. This approach would provide additional control of the self-esteem variable, and only participants within the normal self-esteem range would proceed to the remainder of the study.

Additional research may also benefit from controlling some of the demographic variables of the sample population. Though both the pilot study and the relationship satisfaction study showed variability in the demographics of the participants, it is noteworthy to consider that the average age of the participants in the relationship satisfaction study was more than 10 years younger than the average age of the participants in the pilot study. It is possible that the responses given by the pilot study

participants do not accurately represent the responses that may have been received by a younger group of participants. Therefore, the normative statements developed based on these responses may not have seemed believable to the younger participants taking the relationship satisfaction survey.

A larger sample size for the pilot study would be useful to ascertain that the normative statements were realistic for a diverse participant sample. Also, controlling the average age for the pilot study, and ensuring more variability across the demographic variables might better capture responses that would increase the influence of the normative statements. A larger sample may reveal relationships not found in the present sample. Another consideration would be to include the self-esteem and attachment style variables on the pilot study survey, to compare the pilot study population and the relationship satisfaction study population and ensure a similar array of personality characteristics. Though the normative statements were thought to be believable to the relationship satisfaction study participants, if individuals did not accept the statements as true, it is likely they would have dismissed the statements and their perceptions would have remained unchanged. Additional control in selecting pilot study participants would help ensure this is not a factor.

Previous research, as well as the results of this study, indicates a highly intertwined relationship between many of the demographic and personality variables, as well as relationships of those variables with RAS score. When strong relationships are observed, it is difficult to isolate additional significance among other variables, particularly without a larger sample. Future research could benefit from a more controlled sample selection for both the pilot and relationship satisfaction studies. Also, larger

sample sizes could increase the likelihood of finding statistical significance. Additionally, limiting participation to individuals with high self-esteem and secure attachment style would remove the relationship between those personality variables and RAS score in the regression model. This reduction may better highlight the relationship between RAS score and both the normative statements (under-exaggerated compared to over-exaggerated) and the presentation order (whether statements are viewed first, or immediately preceding the relationship satisfaction rating).

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Appendix A

Normative Statements Pilot Survey

Below is a list of 8 incomplete statements which will be used in a future study to analyze the effects of societal norms on satisfaction. In order to develop 2 lists of **believable** statements, please provide **reasonable** values for each item.

In the **low norm** field of each statement, please provide a value you would consider to be *below average* for a typical couple. For two-part statements, please circle the time frame you consider appropriate (i.e. day, week, month, year).

In the **high norm** field of each statement, please provide a value you would consider to be *above average* for a typical couple. For two-part statements, please circle the time frame you consider appropriate (i.e. day, week, month, year).

1. The average couple goes on _____ romantic dates a year.

Low norm _____

High norm _____

2. The average couple engages in conversation with one another for _____ minutes a day.

Low norm _____

High norm _____

3. The average couple exchanges _____ compliments every _____.

Low norm _____/day/week/month/year

High norm _____/day/week/month/year

4. The average couple engages in gift-giving behaviors (not including holidays) _____ every _____.

Low norm _____/day/week/month/year

High norm _____/day/week/month/year

5. The average couple spends _____ minutes discussing their day with each other.

Low norm _____

High norm _____

6. The average couple withholds an average of _____ secrets from one another at any given time.

Low norm _____

High norm _____

7. The average couple engages in sexual activity with one another _____ time per _____.

Low norm _____/day/week/month/year High norm _____/day/week/month/year

8. The average couple goes on _____ vacations per _____.

Low norm _____/day/week/month/year High norm _____/day/week/month/year

Appendix B

Project Information Sheet

You are invited to participate in a pilot study that will help to develop two lists of normative statements regarding the experiences of an average couple. The study is being conducted by Tina Negley. Results will be used to create a measure for use in the relationship satisfaction portion of this study. Tina Negley can be reached at (303) 524-9317, Tina.Gallinati@du.edu. The study is supervised by Dr. Kathy Green, faculty in the RMS Program, Morgridge College of Education, University of Denver, Denver, CO 80208, 303-871-2490, kgreen@du.edu.

Participation in this study should take about 15 minutes of your time. Participation will involve responding to questions about the experiences of an average couple. Participation in this project is strictly voluntary. The risks associated with this project are minimal. If, however, you experience discomfort you may discontinue your participation at any time. You are encouraged to answer every question, but you have the right to not answer any questions that may make you feel uncomfortable. Refusal to participate or withdrawal from participation will involve no penalty or loss of benefits to which you are otherwise entitled.

Your responses are anonymous. Please do not enter your name anywhere on the questionnaire. Your return of the questionnaire will imply your consent to participate in the project.

If you have any concerns or complaints about how you were treated during this study, please contact Dr. Maria Riva, 303-871-2484, Chair, Institutional Review Board for the Protection of Human Subjects, or Sylk Sotto-Santiago, 303-871-4052, or write to either at the University of Denver, Office of Sponsored Programs, 2199 S. University Blvd., Denver, CO 80208-2121.

You may print this page for your records.

Thank you for your participation in this study. You are encouraged to answer every question, but if a question makes you feel uncomfortable you may choose to leave that item blank. Your responses are completely anonymous. Please complete this survey independently, as other individuals you know may be asked to participate in this study as well. Please do not share the contents or items of this survey with other individuals. If you would like to discuss this survey, please contact the researcher, Tina Negley, at Tina.Gallinati@du.edu. Thank you again for your participation.

Appendix C

Project Information Sheet

You are invited to participate in a study that will evaluate people's perceptions of relationship satisfaction. The study is being conducted by Tina Negley. Results will be used to analyze how students perceive relationships. Tina Negley can be reached at (303) 524-9317, Tina.Gallinati@du.edu. The study is supervised by Dr. Kathy Green, faculty in the RMS Program, Morgridge College of Education, University of Denver, Denver, CO 80208, 303-871-2490, kgreen@du.edu.

Participation in this study should take about 20 minutes of your time. Participation will involve responding to questions about your attitudes toward relationships. Participation in this project is strictly voluntary. The risks associated with this project are minimal. If, however, you experience discomfort you may discontinue your participation at any time. You are encouraged to answer every question, but you have the right to not answer any questions that may make you feel uncomfortable. Refusal to participate or withdrawal from participation will involve no penalty or loss of benefits to which you are otherwise entitled.

Your responses are anonymous. Please do not enter your name anywhere on the questionnaire. Your return of the questionnaire will imply your consent to participate in the project.

If you have any concerns or complaints about how you were treated during this study, please contact Dr. Maria Riva, 303-871-2484, Chair, Institutional Review Board for the Protection of Human Subjects, or Sylk Sotto-Santiago, 303-871-4052, or write to either at the University of Denver, Office of Sponsored Programs, 2199 S. University Blvd., Denver, CO 80208-2121.

You may print this page for your records.

Thank you for your participation in this study. You are encouraged to answer every question, but if a question makes you feel uncomfortable you may choose to leave that item blank. Your responses are completely anonymous. Please complete this survey independently, as other members of the DU community may be asked to participate in this study as well. Please do not share the contents or items of this survey with other individuals. If you would like to discuss this survey, please contact the researcher, Tina Negley, at Tina.Gallinati@du.edu. Thank you again for your participation.

Appendix D

Self-Esteem

Please read each of the following 10 items, and rate the extent to which you agree with each item.

1. I feel that I'm a person of worth, at least on an equal basis with others.
 Strongly agree Agree Disagree Strongly disagree
2. I feel that I have a number of good qualities.
 Strongly agree Agree Disagree Strongly disagree
3. All in all, I am inclined to feel that I am a failure.
 Strongly agree Agree Disagree Strongly disagree
4. I am able to do things as well as most people.
 Strongly agree Agree Disagree Strongly disagree
5. I feel I do not have much to be proud of.
 Strongly agree Agree Disagree Strongly disagree
6. I take a positive attitude toward myself.
 Strongly agree Agree Disagree Strongly disagree
7. On the whole, I am satisfied with myself.
 Strongly agree Agree Disagree Strongly disagree
8. I wish I could have more respect for myself.
 Strongly agree Agree Disagree Strongly disagree
9. I certainly feel useless at times.
 Strongly agree Agree Disagree Strongly disagree
10. At times I think I am no good at all.
 Strongly agree Agree Disagree Strongly disagree

Appendix E

Attachment Style

Please select the one description you feel best describes your feelings.

1. I find it relatively easy to get close to others and am comfortable depending on them. I don't often worry about being abandoned or about someone getting too close to me.
2. I am somewhat uncomfortable being close to others; I find it difficult to trust them completely, difficult to allow myself to depend on them. I am nervous when anyone gets too close, and often, love partners want me to be more intimate than I feel comfortable being.
3. I find that others are reluctant to get as close as I would like. I often worry that my partner doesn't really love me or won't want to stay with me. I want to get very close to my partner, and this desire sometimes scares people away.

Appendix F

Relationship Assessment Scale

Please select the response you feel best answers each item.

1. How well does your partner meet your needs?

1	2	3	4	5
Poorly				Extremely well

2. In general, how satisfied are you with your relationship?

1	2	3	4	5
Unsatisfied				Extremely satisfied

3. How good is your relationship compared to most?

1	2	3	4	5
Poor				Excellent

4. How often do you wish you hadn't gotten in this relationship?

1	2	3	4	5
Never				Very often

5. To what extent has your relationship met your original expectations?

1	2	3	4	5
Hardly at all				Completely

6. How much do you love your partner?

1	2	3	4	5
Not much				Very much

7. How many problems are there in your relationship?

1	2	3	4	5
Very few				Very many

Appendix G

Relationship Norms (Condition 1 – High Norms)

Below is a list of 8 statements, reported in a recent study, regarding the “average couple” in the United States. Please read each statement carefully before proceeding to the next section of the survey.

1. The average couple goes on 10 romantic dates per year.
2. The average couple engages in conversation with one another for 74 minutes a day.
3. The average couple exchanges 4.5 compliments a day.
4. The average couple engages in gift-giving behaviors (not including holidays) once a month.
5. The average couple spends 33 minutes discussing their day with each other.
6. The average couple withholds only 1 secret from one another at any given time.
7. The average couple engages in sexual activity with one another 18 times per month.
8. The average couple goes on 3 vacations per year.

Relationship Norms (Condition 2 – Low Norms)

Below is a list of 8 statements, reported in a recent study, regarding the “average couple” in the United States. Please read each statement carefully before proceeding to the next section of the survey.

1. The average couple goes on 3 romantic dates per year.
2. The average couple engages in conversation with one another for 16 minutes a day.
3. The average couple exchanges 7 compliments a week.
4. The average couple engages in gift-giving behaviors (not including holidays) 3 times a year.
5. The average couple spends 6 minutes discussing their day with each other.
6. The average couple withholds 5 secrets from one another at any given time.
7. The average couple engages in sexual activity with one another 3 times per month.
8. The average couple goes on 1 vacation per year.

Appendix H

Demographic Information

1. Please indicate your gender:

Male Female

2. What is your age, in years?

_____ years

3. How long have you and your current partner been together?

_____ years _____ months

4. Are you currently married?

No Yes

5. Have you ever been divorced?

No Yes

6. Do you have any children? If yes, please indicate the number of children **currently living with you.**

No Yes: _____

7. Please indicate your educational status?

Undergraduate student Graduate student Other: _____

Correlations

		Total score on RAS	Total score on Self-Esteem Scale	Secure Attachment	Avoidant Attachment	Anxious-Ambivalent Attachment	Gender	Age, in years	Duration of Relationship in Months	Marital Status	History of divorce	Have children	Number of children living at home	Highest level of education	High or Low Norms	Norms First or Near Middle
Total score on RAS	Pearson Correlation Sig. (2-tailed)	1														
	N	218														
Total score on Self-Esteem Scale	Pearson Correlation Sig. (2-tailed)	.362*	1													
	N	.000														
Secure Attachment	Pearson Correlation Sig. (2-tailed)	.294*	.440*	1												
	N	.000	.000													
Avoidant Attachment	Pearson Correlation Sig. (2-tailed)	-.174*	-.226*	-.752*	1											
	N	.010	.001	.000												
Anxious-Ambivalent Attachment	Pearson Correlation Sig. (2-tailed)	-.211*	-.332*	-.455*	-.229*	1										
	N	.002	.000	.000	.001											
Gender	Pearson Correlation Sig. (2-tailed)	-.002	.095	.034	-.033	-.035	1									
	N	.981	.163	.614	.626	.604										
Age, in years	Pearson Correlation Sig. (2-tailed)	-.060	.032	.127	-.063	-.140	.062	1								
	N	.378	.639	.061	.352	.039	.359									
Duration of Relationship in Months	Pearson Correlation Sig. (2-tailed)	-.012	.001	.110	-.044	-.148	.008	.780*	1							
	N	.860	.990	.101	.512	.027	.901	.000								
Marital Status	Pearson Correlation Sig. (2-tailed)	.103	.105	.237*	-.137*	-.183*	.007	.420*	.573*	1						
	N	.129	.123	.000	.042	.006	.914	.000	.000							
History of divorce	Pearson Correlation Sig. (2-tailed)	-.128	-.009	-.059	.047	.029	-.001	.306**	-.052	-.131*	1					
	N	.061	.891	.387	.489	.669	.987	.000	.442	.051						
Have children	Pearson Correlation Sig. (2-tailed)	-.055	.074	.149	-.108	-.093	.034	.509*	.535*	.500	.108	1				
	N	.419	.281	.027	.109	.169	.616	.000	.000	.000	.221	.221				
Number of children living at home	Pearson Correlation Sig. (2-tailed)	-.245	-.198	-.230	.341*	-.126	-.010	-.007	.108	.111	.186*	.186*	1			
	N	.031	.081	.040	.002	.266	.929	.952	.341	.325	.101	.000	.000			
Highest level of education	Pearson Correlation Sig. (2-tailed)	.039	.239	.069	-.095	.026	-.069	-.067	-.171	.053	.019	-.149	-.153	1		
	N	.568	.000	.305	-.159	.705	.303	.326	.010	.431	.784	.026	.174	.174		
High or Low Norms	Pearson Correlation Sig. (2-tailed)	-.023	-.047	-.112	.038	.049	-.061	-.046	-.059	-.037	.046	-.132	.151	-.028	1	
	N	.731	.489	.095	.145	.469	.369	.502	.381	.588	.501	.049	.180	.677	.677	
Norms First or Near Middle	Pearson Correlation Sig. (2-tailed)	.099	.090	-.035	-.025	.100	-.007	-.018	-.005	.063	-.010	-.045	-.127	-.008	-.000	1
	N	.144	.186	.605	.714	.138	.914	.795	.935	.349	.877	.503	.263	.907	.994	.994
	N	.218	.216	.222	.222	.222	.222	.219	.222	.222	.220	.221	.221	.222	.222	.222

** . Correlation is significant at the 0.01 level (2-tailed).
* . Correlation is significant at the 0.05 level (2-tailed).
a. Cannot be computed because at least one of the variables is constant.