

DESIRED LOVING BEHAVIORS ACROSS THE LIFE SPAN

By

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To my love bug, Sarah.

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Previous research on college-aged participants yielded a consistent four-factor structure describing participants' desires in their romantic relationships. The current project set out to examine desired loving behaviors in romantic relationships in a non-collegiate sample. In order to understand what non-collegians want in order to feel loved, participants completed a free-response questionnaire regarding what actions elicit feelings of love. A second sample of participants then rated those items in the context of their own relationships. The responses were then factor analyzed to produce a coherent factor structure. A 46-item scale containing five factors emerged and shows what behaviors people reportedly desire to feel loved by their romantic partners. The factors are labeled: Relationship Support, Scripting, Personal Support, Respect, and Sex. The items and factors were then tested for differences in loving desires, as a function of seven individual differences. Significant effects were found as a function of differences in participant gender, age, parenthood status, work status, and the length of the relationship. No differences were found as a function of income.

## CHAPTER 1 INTRODUCTION

### **Desired Loving Behaviors Across The Life Span**

There are essentially two schools of thought about the nature of the interpersonal behaviors that create satisfying romantic relationships (Abelson, 1963). The first is the school of cold (or dispassionate) cognition, in which satisfying romantic relationships result from the conclusion that one is getting back as much or more than one is giving to a relationship or, said somewhat differently, that one and one's partner are giving similarly to each other and to the relationship. The second is the school of hot (affectively imbued) cognition. The hot cognition school posits that the affective meaning one assigns to the behaviors of a romantic partner are critical in determining whether those behaviors do or do not result in satisfaction with the relationship. If the behaviors mean one is loved, satisfaction increases. If not, satisfaction decreases. However, evidence supports both hot and cold approaches and reveals that each approach contributes independent and substantial variance to the prediction of relationship satisfaction. To date, most of this work and virtually all of the hot cognition work has been conducted on collegians. The purpose of the present investigation is to examine the validity of a common measure of these romantic relationship-relevant hot cognitions, namely the Desired Loving Behavior Scale (DLBS; Heesacker, Smith, & Lawrence, 1998) with a more diverse sample and to assess whether hot cognition's contribution to relationship satisfaction of collegians would be mirrored in the responses of adults not currently enrolled in college courses. The current project also examined what factors influence desires in romantic relationships (e.g., relationship length, marital status, or children).

## **Background**

Intimate relationships are important to human beings. The signs of the quest for love abound. For example, from September 2000 to September 2001 there were 2.4 million marriages in the United States alone (National Vital Statistics Report, Vol. 50, No. 8, May 24, 2002). Love relationships are central to the lives of many people. Illustrative of this is the fact that six of the top fifteen most stress inducing items on the social readjustment scale (Holmes & Rahe, 1967) concern intimate relationships.

It is clear that relationships are important, but it is also no secret that occasionally people struggle to maintain healthy relationships; that the sea of love is prone to a squall from time to time. In a report issued by the Center for Disease Control within five years a marriage has a 20% probability of ending in divorce. By ten years of marriage that number jumps to 33% (Vital and Health Statistics, Series 23, Number 22, 2002). Another indication of stormy relationships is rampant infidelity. By their very nature, statistics on extramarital affairs are hard to ascertain, but depending on the sample, cohort, and definition of infidelity, rates of infidelity vary from approximately 25% of committed experiencing infidelity to more than 50% (Blow & Hartnett, 2005; Kinsey, Pomeroy, & Martin, 1948).

Relationship difficulties are not limited to married couples. Heesacker, Stanley, and Tiegs (2004) found similar rates of infidelity in dating relationships. According to Carlson (1987) 36% of college students will experience some form of abuse in their dating relationships. Infidelity and abuse represent relationships at their worst, but what about when people are simply dissatisfied with their partners and want to improve their relationships? Three primary theories have attempted to articulate the factors that nurture and sustain relationships as well as those that hurt and end relationships. A brief review of these theories will be presented next. Understanding these theories is vital to understanding the rationale for the proposed research.

Thibaut and Kelley (1959) proposed social exchange theory. Social exchange theory posits a cost-benefit analysis of the relationship as central to relationship satisfaction. An individual considers the rewards and costs of being in a particular relationship, as opposed to other alternatives. This model predicts that as the rewards increase and costs decrease a person will be more satisfied and place a higher value on the relationship.

In equity theory, Adams (1965) built on social exchange theory, taking into account the extent to which each partner benefits from the relationship. Equity theory suggests that it is possible that one partner benefits too much while the other partner benefits too little from the relationship. Both partners will become dissatisfied in this situation; so, for a couple to be satisfied, equity of perceived costs and benefits is needed.

Rusbult's Investment Model (1980, 1986, 1998) is also related to Thibaut and Kelley's social exchange theory. Rusbult created the Investment Model Scale to measure commitment level, investment size, and quality of alternatives, as well as relational satisfaction. The theory posits that satisfied relationships involve high rewards and low costs. The investment model also suggests that commitment increases as partners invest more resources in the relationship making other alternatives less attractive.

What these theories share is a perspective on relationship satisfaction that Abelson (1963) would likely characterize as "cold cognition". Abelson was the first scholar to publish work distinguishing between cold and hot cognition. Cold cognition is defined as relatively devoid of affective intensity, characterized primarily by logic and facts, whereas hot cognition is relatively saturated with affect. Abelson's distinction suggests that a theory that focuses on hot instead of on cold cognition may provide a complementary understanding of the sources of relationship satisfaction, beyond the variance accounted for by the cold-cognition models. One such affect-

based, hot cognition model is Heesacker's desired loving behavior theory (Heesacker, Smith, & Lawrence, 1998; Mejia-Millan, Heesacker, & Todd, 2006).

The desired loving behavior theory proposes that individuals want to feel loved by their romantic partners; that specific actions by the partner signal the degree to which people feel loved, and that people differ in the amount and type of behavior they desire in order to feel loved. According to this theory, the extent to which their partner provides these desired loving behaviors affects feelings of being loved and consequently relational satisfaction. Heesacker and colleagues created the Desired Loving Behaviors Scale (DLBS; Heesacker et al., 1998) to test the theory. Heesacker et al. developed the DLBS to examine what actions romantic partners desired from one another in order to feel loved. The DLBS has been used to assess for discrepancies between what people desire and what they receive from their romantic love partner. The DLBS is a 39-item survey that assesses the extent to which participants want and receive various behaviors in four domains including Sex, Scripting (communication), Relationship Support, and Caring Actions. The DLBS was found to be valid and reliable (Tiegs et al., 2008). The scale allows for the calculation of a score that assesses the degree of discrepancy between what desired loving behaviors one person wants and what that person reports receiving from the partner. The magnitude of this discrepancy is inversely related to satisfaction (Mejia-Millan et al., 2006). Participants in current relationships reported lower discrepancy scores than those in failed relationships. Furthermore, Mejia-Millan et al. found that the discrepancies between desired and received loving behaviors significantly predicted relationship satisfaction above and beyond variance accounted for by the equity and investment models. They also found that the degree to which the received behavior was believed to represent

feeling loved consequently determined the importance of the behavior in influencing relationship satisfaction, thus supporting a hot cognition perspective.

Not only are these discrepancies important, research indicates that they are also large. Across three studies (Samson, 1996; Cawood & Heesacker, 2001; & Mejia-Millan et al., 2006) the average discrepancy ranged from .8 to 1.2 (on a 5-point scale). Cohen (1988) would characterize the effect sizes of desired-received loving behavior discrepancies as large (Heesacker et al., 2003).

Beyond assessing relationship satisfaction, the DLBS has been found to be useful in examining gender similarities and differences, gender stereotypes, and beliefs about emotions. Heesacker et al. (2003) used the DLBS to demonstrate that men and women are quite similar in what they desire in romantic relationships, a finding that contradicts commonly held gender stereotypes. Other research using the DLBS revealed that participants held inaccurate and over-exaggerated beliefs about what men and women desire in romantic relationships (Tiegs & Heesacker, 2005). Ongoing research using the DLBS includes projects on gender similarities, gender roles, and relationship satisfaction. The DLBS has also been suggested for use in couple's counseling (Heesacker, Smith, & Lawrence, 1998). In order to raise awareness and facilitate discussion, both members of the couple can complete the DLBS to help delineate what their individual desires are and where their desires are and are not being fulfilled in the relationship.

All of these projects show the utility and broad applicability of the Desired Loving Behavior Scale in understanding relationship satisfaction, gender similarities and differences, gender roles and stereotypes, and gendered emotions. To date, however, the DLBS has only been normed on college-aged participants (i.e., approximately 18-22 years old). While the scale

clearly has been useful in the college population, romantic relationships extend beyond those in college.

### **The Current Project**

There are a number of factors that may influence what people desire from romantic partners in order to feel loved. The current project used two phases to examine these desires. Phase 1 created a list of items provided by participants of what they desire in order to feel loved in their relationships. Phase 2 then factor analyzed those items and used the resulting factors to examine differences in the sample on various characteristics including age, the presence of children, SES, relationship duration, marital status, career status, and culture, among others. All of which likely impact desired behaviors. Each of these factors will be discussed briefly in context of relationships and relationship satisfaction. Some desired loving behaviors may be relevant across groups whereas others may be relevant to just some groups. The four factors seem to represent core needs in relationships. It is hypothesized that these factors will be replicated in non-collegiate samples. However, it is likely that there may be other factors as well (e.g., related to children or work status) in the non-collegiate sample that will vary compared to responses of collegians. The hypotheses associated with each of these aspects will be discussed in the following sections.

### **Gender**

Previous research has shown a consistent effect wherein women desire more relationship support than do men (Heesacker et al., 2003, 2006). Common stereotypes suggest that men may desire more sex and women may desire more communication (scripting) but there is mixed support for these notions about men and women (Heesacker, Wester, Vogel, Wentzel, Mejia-Millan, & Goodholm, 1999; Canary & Emmers-Sommer, 1997; Allgeier & Royster, 1991). One consistent gender difference is that women desire more relationship support than do men

(Heesacker et al., 2006). Research has also shown a consistent difference in desires for sex in men and women (e.g., Hatfield, Sprecher, Pillemer, & Greenberger, 1988; Sprecher, 2002). It is hypothesized that women in the current study will report more desires than men on the relationship support subscale of the DLBS and that men will desire more sex than women. No other differences are predicted regarding gender.

### **Age**

As people age and their life circumstances change, it is quite likely that their needs and desires in romantic relationships will also change to reflect their current life demands. Research suggests that sexual behaviors change as people grow older. These changes are associated with many factors including physiological changes, loss of partners, and changes in living arrangements among other factors (Long, Burnett, & Thomas, 2006). The advent of Viagra and other drugs to treat erectile dysfunction, coupled with new attitudes towards sexuality in older adults, is changing the stereotype of older adults as asexual (Kingsberg, 2000; Crooks & Bauer, 2002). Even with this change in beliefs about of sexual attitudes and behaviors in older adults it is hypothesized that younger adults will report more sexual desires and that there will be an inverse correlation between age and reported desires on the sex subscale of the DLBS.

As people age, it is also likely that their desires for caring actions may change. The necessity to provide informal, at-home health care is increasing as the population ages (Tiegs et al., 2006). Many people will require this type of care, which is frequently provided by spouses. While this care is often needed for the patient's survival and well-being, it certainly is an expression of love. There are no predictions about any differences on the relationship support or scripting subscales of the DLBS associated directly with age.

## **Relationship Length**

Studies (e.g., James, 1981; Samson, Levy, Dupras, & Tessier, 1991, Brewis & Meyer, 2005) have indicated that sexual behavior decreases significantly after the first or second year of marriage. Research examining communication suggests that some people have more difficulty communicating as the length of their relationship increases (West, 2005). Rosen-Grandon, Myers, and Hattie (2004) compared short duration marriages against longer duration marriages and found that expression of affect, sex, and other marital characteristics (including romance and support, among others) were not significant predictors of relationship satisfaction in the longer marriages whereas they were in shorter marriages. Accordingly, an inverse correlation is hypothesized between desires on the sex, scripting, caring actions, and relationship support subscales of the DLBS and length of relationship.

## **Children**

The presence of children has been shown to decrease the level of sexual activity in romantic relationships (James, 1981). The absence of children has also been linked in some couples with greater expression of affect, and cohesion and they may have more time to give to the relationship in such activities as talking and supporting one another (Callan, 1984). For the current project it is hypothesized that couples without children will desire more relationship support, scripting, and sex as indicated by their DLBS scores. No group differences are predicted in the level of caring actions, but the items may differ in parents versus those without children on the caring actions subscale. That is, people with children will desire caring actions associated with child rearing whereas those without children will not.

## **Hypotheses Summary**

To summarize, the hypotheses for the current project are as follows:

- 1) **Hypothesis 1** – the factor structure of the new DLBS will match the factor structure of the original DLBS.
- 2) **Hypothesis 2** – women will desire more relationship support than men in order to feel loved.
- 3) **Hypothesis 3** – men will desire more sex than women in order to feel loved.
- 4) **Hypothesis 4** – there will be an inverse correlation between age and desire for sex as it relates to feeling loved.
- 5) **Hypothesis 5** – there will be an inverse correlation between relationship length and all DLBS factors.
- 6) **Hypothesis 6** – couples without children will desire more relationship support, scripting, and sex in order to feel loved than couples with children.

## CHAPTER 2 REVIEW OF THE LITERATURE

“Love is a many splendored thing.”

– The Four Aces

Love is complex. Much has been written over the years to understand and define love (e.g., Beall & Sternberg, 1995). A search of the PsycInfo database for the word “love” resulted in nearly 14,000 citations. Inherent in the complexity of love are components over which individuals have some agency and other aspects that are out of the sphere of an individual’s influence. For example, one can control and change how often he or she talks or has sex with his or her partner. A person cannot as easily decide to alter one’s neurobiology for the benefit of the relationship (Marazziti, 2005). Other components fall somewhere between no agency and total agency (e.g., attachment style, Bowlby, 1982; culture, Dion & Dion, 2006). Beall and Sternberg (1995) defined love as “an idea that includes information about (a), the beloved, (b), the thoughts that accompany love, (c), the feelings that accompany love, and (d) the actions, or the relations between the lover and the beloved” (pp.433-434). It is worthwhile knowing, understanding, and defining all of these aspects of romantic love. However, for the purpose of this review I will focus on the actions and relations between the lover and the beloved; that is, the more concrete, behavioral aspects of love that people can theoretically change in themselves and in the ways they behave. The current chapter will review relationship models in order to describe the components of love with a focus on the behavioral aspects in each model/theory. The review will describe inclusion and exclusion criteria, it will discuss approaches to love as a single factor as well as multifactor approaches to love to better understand the behaviors of love.

## **Inclusion and Exclusion Criteria in the Current Review**

There are many conceptualizations, definitions, and theoretical approaches to understanding love including: love as attachment (Bowlby, 1982; Hazan & Shaver, 1987), love as motivation (Aron & Aron, 1996), and love as social construction (Dion & Dion, 1996) just to name a few. In the current review I chose to focus on taxonomies of love with a focus on behavioral components.

Models of romantic relationships and relationship research were included in or excluded from the review based on a few criteria. First, they had to be based on empirical approaches to love and discussed/reviewed in the empirical literature. This criterion excluded from review unsubstantiated popular cultural theories of love and even well-meaning but unsubstantiated clinical theories of love (e.g., Freud, 1922, 1955 as cited in Sternberg and Beall, 1991). Second, they had to focus on romantic relationships as opposed to other types of interpersonal relationships (e.g., parental, sibling, friend relationships). Third, they needed to include a discussion of love, as opposed to just relationship satisfaction or enhancement. This criterion precluded a few well known relationship models (e.g., Thibaut & Kelley, 1959; Rusbult, 1998) because of their exclusion of a discussion of love. Also, the research needed to *focus* on love rather than include love as a *byproduct* of the model or research. For example, exchange and equity theories are *relationship* theories that consider love, if at all, as a byproduct of relationship satisfaction. Fourth, the research had to present or test a model of love as a whole concept rather than simply looking at particular aspects or correlates of love relationships. I wanted to examine relationship models and theories rather than all available research on the topic of behaviors in love. There is a great deal of good research available on these different specific behaviors (e.g., Harvey, Wenzel, & Sprecher, 2004; Sprecher, 2006), but I wanted to focus on general love models. I chose to focus on models that describe what love consists of rather than on research

explaining how to get love, keep it, or lose it. Fifth, I also excluded discussions of theories that do not identify specific behaviors one can engage in, things such as attachment style (e.g., Hazan & Shaver, 1987), culture (e.g., Dion & Dion, 2006) or love as self-expansion (Aron & Aron, 1996). These theories were excluded from the discussion because they do not identify specific behaviors one can engage in that fall within the realm of one's control, but do not represent specific behaviors that one can do to increase love in their relationship. Search terms for the current review included: components of love, features of love, love theory, relationship theory and love, what is love, conceptions of love, taxonomy of love, love factors.

The current chapter will review theories and literature from two broad perspectives on love: love as a single factor with many components and the perspective that love has many types. The perspectives will be defined and theories and research from each approach will be reviewed for how they explain behavioral aspects of love. Then shortcomings in this literature, as it relates to the current project, will be identified.

### **Perspectives on Love**

Two main perspectives exist within the empirical approaches to love (Murstein, 1988; Berscheid, 1988). The first suggests that love is a single factor containing multiple components. The second suggests that there are many types of love each with its own components (e.g., Lee, 1973; Hatfield, 1988). In the current review the focus is not on the different types of romantic love *per se* (I, among others, believe that the single factor approach has more validity; e.g., Sternberg & Grajek, 1984; Murstein, 1988) but the multifactor approaches do address some behavioral components of love not addressed by the single-factor approaches. Thus theories from each approach will be discussed for what they add to the understanding of behaviors related to love.

## Love as a Single Factor with Various Components

Theories and research that conceptualize love as a single factor with multiple sub-factors will be reviewed next. The focus will be on the overt actions that demonstrate the components or sub-factors of love.

Heesacker, Smith, & Lawrence (1998) created the Desired Loving Behavior Scale (DLBS) to examine what behaviors people wanted in order to feel loved in their romantic relationships. The DLBS was created by explicitly asking participants what actions and behaviors they wanted their partners to do or say in order to feel loved. The results of which yielded four factors, Relationship Support, Scripting, Caring Actions, and Sex. Heesacker, et al. (1998) found that college students frequently desired actions that made them feel that their partners were committed to the relationship and to improving the relationship. They called this factor Relationship Support. Sample items from the Relationship Support scale include “creating a feeling of security between us” and “accept my imperfections”. College students also reported that they wanted to hear certain sentences or phrases said to them by their partners to feel loved. These items included “say to me, you mean so much to me” and “say to me, I’ll always love you”. They also desired their partners exhibit caring actions toward them, such as helping with the laundry or leaving a note on their car. Finally, the participants in Heesacker et al.’s research wanted sexual behaviors in order to feel loved by their partners.

In a similar research paradigm Critelli, Myers, and Loos (1986) asked couples to rate items about the type of love they *experienced*. Critelli et al. based their work on love theories proposed by Erich Fromm and by feminist theory. One-hundred twenty three heterosexual dating dyads completed the protocol (246 people). Participants varied in age from 18-28 years old with a relationship length ranging from two weeks to five years. Participants in this research were instructed to rate the extent to which they agreed or disagreed with love items provided by the

researchers. Participants also each wrote a love letter regarding their current relationship, which was then evaluated for love-related themes. The researchers employed both top-down and bottom-up approaches. Five factors emerged from their research: Romantic Dependency, Communicative Intimacy, Physical Arousal, Respect, and Romantic Compatibility. Pertinent to the current review are the factors of Communicative Intimacy (being able to openly communicate with one's partner), Physical Arousal (attraction and sex related items), and Respect (being respectful of one's partner). Less pertinent are the factors of Romantic Dependency and Romantic Compatibility. Romantic Dependency is more about feeling reliant on one's partner and Romantic Compatibility is about interpersonal similarities. Both factors reflect beliefs held by partners rather than actions one can engage in to improve the relationship. Communicating, physical expressions of love, and showing respect all emerged as behavioral components of love. These factors are present in many models of love.

Marston, Hecht, and Robers (1987) completed research along these same lines, in many ways similar to the work done with the DLBS. They set out to understand how people communicate love to their partners. In two studies, Marston et al. compiled a list of factors describing what actions people use to communicate love. Seventy-six participants completed Study 1 of which 50% were men. Ages of the participants ranged from 21 to 54 years old. Study 1 gathered information about how the participants understand love. Participants were then asked how they communicated to and received love from their partners. Cluster analysis of participant responses yielded six factors: Collaborative Love (supporting each other through intensified emotional experiences), Active Love (doing things together and discussing emotions), Secure Love (talking about intimate topics and doing things for each other), Intuitive Love (non-verbal communication of love), Committed Love (talking about where the relationship is going in the

future), and Traditional Romantic Love (saying I love you and being romantic). A follow-up study used a self-categorization cluster analysis to examine the factors created in Study 1. Three samples were used in Study 2. The first sample including 29 participants (72% of whom were female) that ranged in age from 21-62 years. The second and third sample consisted of 94 (78% were female) and 62 (52% were female) participants that had an average age of 20.5 years. Samples 2 and 3 consisted of undergraduate students. Participants from all three samples first responded to the items created in Study 1 and were then instructed to think about their relationships and categorize themselves in one or more of the proposed factors. Study 2 yielded slightly different categories. Four of the six original factors remained (Active Love, Collaborative Love, Committed Love, and Intuitive Love). The Traditional Romantic Love factor appeared to split into two categories: Expressive Love (traditional communications of love) and items that remained from the original cluster analysis, which the authors again named Traditional Romantic Love. The Secure Love factor received no support in Study 2 and was dropped. However, three new factors emerged: physical contact as a way of both communicating and feeling love and togetherness as a way of feeling love.

The items and factors produced by Marston, Hecht, and Robers (1987) in many ways mirror those produced in the DLBS research. Marston and colleagues set out to understand and classify the ways that people send and receive love. The behaviors that they found associated with communicating love matched closely with items in the original DLBS. Marston et al. took their work a step further and made the leap to classifying types of love based on these communication styles. They achieved varying degrees of success in labeling peoples' experiences. Even so, their categories shed much light on concrete-behavioral components of how people experience love ranging from physical closeness to simply saying "I love you".

Rubin (1970, 1973) also took a factor-analytic approach to understanding love. Rubin set out to create a love scale that differentiated liking from loving. He created an item set covering both liking and loving based on previous writings on the nature of love (i.e., Freud, 1955 as cited in Rubin, 1970; Fromm, 1956). From there Rubin asked participants (158 heterosexual dating couples enrolled at a large Midwestern university) to separate items into love and liking categories. Seventy items were retained and then rated by students in context of a romantic or a platonic relationship. Two scales, one for liking and one for loving, were created based on the students' responses. Each scale had 13 items. Rubin found that one large factor emerged on the loving scale, representing a mix of behaviors and concepts. Examples of such behaviors include confiding in their partners, doing things for one another, caring for the other, forgiving their partners, being possessive of one another, and cheering up each other when feeling down. Rubin also found a correlation between liking and loving. Not unexpectedly, he found that partners in love also reported liking one another. Rubin also examined gazing behavior and found that partners in love spent more time looking at each other, which he proffered as an example of exclusiveness and of absorption in the relationship. Based on this work, Rubin suggested that love consists of three components, affiliative/dependency needs, predisposition to help one's partner, and exclusiveness or absorption in the relationship. Inherent in these structures are the behaviors of communication, being faithful (fidelity), caring for one another, self-sacrificing, forgiveness, and simply looking at each other. Additionally, the correlation between loving and liking scales suggest that there is a component of love that involves behaviors associated with friendship, such as respecting, trusting, and being confident in one another.

Steck, Levitan, McLane, and Kelley (1982) reviewed and revised Rubin's theory to emphasize the importance of caring and needing in the conceptualization of love. Using some of

Rubin's Love Scale items and some of their own items, Across five studies involving 133 male and 199 female undergraduate students enrolled at a large Southwestern university, Steck et al. found evidence to support their claim that *caring for* one's partner is a more central component of love than is *needing* one's partner. They also found that need is more associated with attraction than is caring. They suggested that caring is a more central concept to love than is need. However, the authors stressed that both aspects, care and need, are important to relationships particularly at different stages. In the early stages of relationships, need may be more important as it helps facilitate attraction, whereas later in relationships care may take on a more central role. Sample items assessing care and need include "I feel concerned for \_\_\_\_'s well-being" (care) and "I want to feel that \_\_\_\_ is a part of me" (need).

Like Rubin (1970), Davis and Todd (1982; see also Davis, 1985) sought to distinguish between love relationships and friendships. They said that friendships consist of the following factors: enjoyment, acceptance, respect, mutual assistance, confiding, understanding, and spontaneity. They proposed that love relationships had all of the factors of friendships but that they also consisted of what they called a passion cluster and a caring cluster. The passion cluster includes fascination (attending to the lover above other things), exclusiveness (commitment and fidelity), and sexual desire. The caring cluster includes giving the utmost and being an advocate for one's partner. Across three studies involving 143 participants (most of whom were college students) they found that the model was able to distinguish between lovers and close friends, although they found that friends and lovers were quite similar in their caring behaviors. Predictably, they found that the passion cluster was the best predictor in differentiating friends from lovers. Again, the behaviors of passion and caring appear central to the conceptualization of love.

Forgas and Dobosz (1980) created a taxonomy of love and romantic involvement. They had participants (61 male and 68 female undergraduate students) write out lists of different types of romantic relationships. A separate sample then sorted those relationship types into homogenous categories of their own making. Participants were encouraged to decide for themselves into which categories the relationships should be placed. Participants then rated the relationships in each category for similarity to the others in the same category. Forgas and Dobosz then completed a multidimensional scaling matrix analysis that yielded a three-dimensional solution. This solution characterized components of love relationships. They found that relationships in their list varied on the dimensions of desirability, love and commitment, and sexuality. The dimension of desirability includes how much each partner wants to be in the relationship. For example, people who got married simply because they got pregnant rated low in relationship desirability whereas couples that dated for a long time and married were rated as high in desirability, because being in the relationship was evidently desirable. The second dimension, love and commitment, reflects the permanency of the relationship. One-night stands were rated as being low in love and commitment and long-term marriages were rated high on this dimension. The last dimension of loving relationships described by Forgas and Dobosz was sexuality. Couples that engage in frequent sexual behavior and physical contact would score high on this dimension. Forgas and Dobosz found that all relationships contained various levels of these dimensions. In loving relationships, couples will experience some desire to be in the relationship, a sense of commitment to the relationship, and sexual contact within the relationship.

Sternberg and Grajek (1984) compared three structural models of the nature of love. Borrowing from theories of intelligence, Sternberg and Grajek tested whether love was a single,

undifferentiated factor (that is, Spearmanian in nature), comprised of many overlapping bonds (that is, Thomsonian in nature), or a set of several primary factors (that is, Thurstonian in nature). Thirty-five men and 50 women completed a love history and many love instruments including the Limerence Scale (Steffen, McLaney, & Hustedt, 1982), the Lasswell-Hatkoff Love Scale (Lasswell & Lobsenz, 1980), items from the Liking and Love Scales (Rubin, 1970), and items from Levinger's scale of interpersonal involvement (Levinger, Rands, & Talaber, 1977) as well as other measures of personality and functioning. Participants ranged in age from 18 to 70 years and the average age was 32 years old. Factor analyses were run on the participants' responses. Results suggested that love fits best within a Thomsonian model, wherein there is a single strong general factor followed by other weaker factors. Sternberg and Grajek posited that the general factor consists of the following behavioral aspects: "(a) deep understanding of each other, (b) sharing of ideas and information, (c) sharing of deeply personal ideas and feelings, (d) receipt and provision of emotional support to the other, (e) personal growth through the relationship and helping of the other in his or her personal growth, (f) giving help to the other, (g) making the other feel needed and needing the other, (h) giving and receiving of affection in the relationship (pp. 327)".

In later research, Sternberg (1988, 1997, 2006) described three components of love in his relationship model. Intimacy, passion, and commitment constitute the three parts of Sternberg's triangular model of love. Intimacy occurs, according to Sternberg, when couples share personal information about themselves. Passion, according to Sternberg, is the sexual desire felt within the relationship. Commitment, in his view, is a cognitive component wherein individuals in the relationship make conscious decisions to be in love and to stay in the relationship. Each of these three components of love includes behavioral aspects. Intimacy is increased when partners are

vulnerable with each other and accepting of the other person. By talking and sharing details of their lives couples can increase the amount of intimacy in their relationship and increase this aspect of love. Other behaviors that increase intimacy are working to bring out each other's strengths and helping to overcome weaknesses, observing the needs of one another, being gentle and kind, and making their partner feel special (Sternberg & Beall, 1991). Couples can increase the amount of passionate love they experience by engaging in sexual behavior. Individuals have the choice to be committed to the relationship and can behave accordingly (i.e., by maintaining fidelity in the relationship). Sternberg then created classifications of love based on the presence of one or more of the components. For example, if all three components are present, couples experience what Sternberg calls Consummate Love—a full, complete type of love. However, if one or two aspects of love are missing, couples can work to increase that piece in their relationship to attain Consummate Love. Sternberg suggested if none of the three pieces is present then there is not love at all—a relationship state that he called non-love.

Baumeister and Bratslavsky (1999) provided some theoretical support for the components of passion and intimacy. They found that these two aspects were highly correlated and that passion appears to increase with increases in intimacy, again suggesting that the two pieces are very much related. Their findings also suggest that couples hoping to increase passion can raise the level of intimacy in their relationships; that by sharing more of themselves and their lives that they may be able to experience greater passion.

Sternberg (2006) also proposed what he called a sub-theory of love. He described that the components of love (intimacy, passion, commitment) come out of the stories we construct around love. The stories we have regarding love are multiple and range from simple to complex, but all of them help us to conceptualize love and our love relationships. This theory states that as

people interact with their environments they create the stories that influence how they perceive love and how they act in their loving relationships. Also, he proposed that people have some agency over stories to which they attend and toward which they devote energy, although there is also an unconscious, automatic process associated with story construction as well. Sternberg said that people often don't even realize that they have a love story or that their love story may be very different from the stories of others. He also said that problems arise when individuals are unable to live up to their own love stories; that they sometimes don't have the awareness that the stories are *constructed* and therefore can be *reconstructed*. Research on this theory shows that relationships are more likely to succeed when partners have similar love stories. Although he noted that the number of love stories is potentially limitless, Sternberg, Hojjat, and Barnes (2001) found common themes in the love stories reported by participants. One-hundred five undergraduate participants (55 women, 50 men) ranging in age from 17 to 26 completed the love stories scale. Examples of common love stories include those entitled: Love is Art (love of a partner that is beautiful and aesthetically pleasing), Cookbook Love (following a recipe for love by doing the right things at the right time makes the relationship more likely to succeed), and Love is Travel (love is an adventure and a journey). Sternberg stated that the stories serve as complex scripts for how we comprehend and behave in our relationships. People's love stories, according to Sternberg, are both causes of behavior and affected by behavior. The stories also vary in salience based on individual and situational differences. Research on the love stories endorsed by participants found that maladaptive stories correlated with problems in relationships. However, the research did not find an increase in relationship satisfaction based on endorsement of adaptive or positive love stories. Potentially, people can increase self-awareness of their love stories and can change them to reduce relationship dissatisfaction and increase relationship

satisfaction. Sternberg suggested that our love stories are similar to automatic thoughts seen in cognitive behavioral theories. Individuals can challenge their automatic thoughts and consequently can change how they behave in relationship. The reverse can also hold true. People can alter how they act in their relationships and in doing so can reconstruct their love stories. Although, research by Jackson, Chen, Guo, and Gao (2006) suggested that the love stories people tell are highly influenced by their culture.

Fehr (1988) asked participants (103 women and 37 men) to list the features of love and commitment. They produced 68 common attributes of love and 118 attributes for commitment. The top five items (as measured by the percentage of participants listing that item) for love are: caring, happiness, wanting to be with the other, friendship, and feeling free to talk about anything. The top five items (as measured by the percentage of participants listing that item) for commitment are: perseverance, responsibility, living up to your word, devotion, and faithfulness. A second set of participants (111 female and 56 male undergraduate students) then rated the centrality of each item to its corresponding component—love or commitment. Trust was the most central item to love. Caring, honesty, friendship, and respect make up the top five most central items to love. Loyalty, responsibility, living up to your word, faithfulness, and trust comprise the top five most central items to commitment. Fehr used these data to create what she called prototypes of love and commitment. She wanted to understand the content and structure of the concepts of love and commitment. Again, many aspects of her love prototypes involve concrete actions (e.g., caring for each other, living up to your word, talking openly, sacrificing for the other person). This research further demonstrates the concrete nature of certain aspects of love (see also Fehr & Russell, 1991; Fehr, 1994).

Aron and Westbay (1996) examined the work of Fehr (1988) and confirmed a three-factor prototype structure of love. Aron and Westbay instructed participants (168 undergraduate students) to rate items on their centrality to love (items were taken from Fehr, 1988). An exploratory factor analysis of their responses yielded three factors, which they labeled Passion, Intimacy, and Commitment. Participants (253 undergraduate students) completed a follow-up study using a confirmatory factor analysis. Results of the confirmatory factor analysis supported the three-factor solution. Sample items from each component include: gazing at each other, physical attraction (Passion); feeling free to talk about anything, being supportive (Intimacy); putting the other first, missing the other when away (Commitment). This research supports Sternberg's (1988) model of love using a factor-analytic approach. As previously stated, couples can use this knowledge and knowledge of their own relationships to make behavioral changes to increase the love they experience with one another. With familiarity of the individual items on each scale couples can concretely work to improve each particular component. For example, they can gaze at each other more often to increase passion or they can support one another by communicating to develop more intimacy.

Gottman (1979, 1999) has done extensive work studying relationships and relationship patterns. He studied a wide variety of participants across many different age groups. He and his colleagues have created an intricate model of relationships, which includes behavioral components. Gottman called his theory for relationships the "The sound marital house: a theory of marriage". His theory focuses on well-being in marriages, but can also be generalized to other types of romantic relationships. Gottman proposed that there are two required components to any relationship, a certain level of positive affect and the ability to decrease negative affect when conflict arises. Of these two key parts, he described seven particular components. The first three

components are cognitive room (how much an individual thinks/knows about their partner), fondness and admiration system (the amount of respect and affection in the relationship), and turning toward vs. turning away—the emotional bank account (how the individuals view the relationship, what he described as a “me or we” orientation and the ratio of positive to negative interactions). These aspects all contribute to the fourth component called Positive/Negative Sentiment Override. Sentiment Override describes how individuals interpret their partner’s actions—along the spectrum from good to neutral to bad. Gottman posited that if the first three parts of the model function well, then the Positive Sentiment Override is enacted. Partners will then tend to interpret neutral or even negative actions as positive or at least as less negative. Whereas if the first three components are not in place or not functioning well, then people will tend to interpret their partner’s behaviors as negative. The next component of his theory involves conflict discussion and regulation, which depends on the Sentiment Override. He proposed that conflict regulation is much easier when couples engage in Positive Sentiment Override—they give their partner the benefit of the doubt and problems are then easier to resolve. The next piece in his relationship model is making dreams and aspirations come true, what he also called avoiding marital gridlock. This piece is related to accepting partners accepting influence from one another to achieve their individual and combined life goals. The ability to regulate problems and accept influence at this level helps the couple to achieve their goals together. The final piece of the model is creating shared meaning. Gottman proposed that each couple has its own culture; a culture that is constructed and co-created by the individuals. The culture of the relationship includes the rituals, roles, goals, and symbols in the relationship.

Many aspects of the sound marital house theory involve behaviors that a couple can engage in or change to facilitate a good relationship. At the level of cognitive room, Gottman

proposed a list of questions that help increase the amount that partners know and think about each other. He called these questions “Love Maps”. Sample questions include: “I know my partner’s best friends”, “I know my partner’s favorite music”, and “I can tell you in detail my first impressions of my partner.” Gottman suggests that partners be able to answer these questions and he even created cards in a game format that people can use to learn more about their partner. Making the effort to know and think about one’s partner increases the stability of the relationship. The emotional bank account also involves behavioral components. This level of the model includes Gottman’s well known 5-to-1 ratio of positive to negative interactions. He found that stable happy couples had at least five positive exchanges for every one negative exchange. Couples aware of this ratio and aware of their actions can consciously work to exceed this minimal level of positive to negative exchanges. Creating shared meaning also involves many behavioral aspects of love. Couples co-create meaning in their relationships. They can actively create new rituals (e.g., having dinner together nightly, or a weekly date night) that contribute to the love that they share.

In a different research line, Clark and Monin (2006) outlined their work regarding a theory describing receiving communal responsiveness as a central component of love. The behavior of communal responsiveness “focus[es] on one another’s needs and welfare, attending to needs and promoting welfare” (p. 202). When this behavior is reciprocated by both partners it leads to feelings of safety, security, and even love. Clark and Monin stressed that the responsibility for communal responsiveness resides with both partners—the responder and the receiver. Obviously, the responder must act in a way that attends to the needs and welfare of the other. Less obvious is the role of the receiver. Receivers of the nurturing actions must be willing

to be vulnerable and trust that their partners will respond in favorable ways. The combined actions of the partners can lead to an environment of ever-increasing intimacy.

Clark and Monin (2006) suggested that there are important considerations in creating a relationship conducive to communal responses. They proposed that individuals must be willing to receive nurturing responses from their partners. Responders must also be aware of how to best react to ensure the well-being of their partners. To that end, self-disclosure about needs of each partner becomes important. Expectations and beliefs about whom to seek out for communal responsiveness also play a role. That is, people have hierarchies of supporters. For example, a spouse might be at the top of a person's hierarchy, meaning that the person will go to the spouse early and often to have needs fulfilled. Lower in the hierarchy might be another family member. A co-worker might represent someone lower yet in the support hierarchy. Communal responsiveness is potentially maximized when there is a similarity in expectations and both parties hold a similar place in the hierarchy of the other person. Love can still flourish in one-sided communal relationships, where one partner is more giving and the other partner is receptive of those actions. Even though responsiveness is imbalanced, there is a lot of love perceived in the relationship. Another aspect that facilitates love involves where one places oneself in his or her own hierarchy. People feel responsible for their actions and often engage in self-soothing behavior, which is normal and adaptive. However, if someone places himself or herself high above the partner in intimacy, the relationship might suffer. In essence, this pattern leads to a greater self-focus and can cause less sacrifice and compromise for the other person's benefit (i.e., less communal responsiveness).

Clark and Monin (2006) also proposed the importance of trust in romantic relationships. They said they people must trust their partners to care for them, but also that they must trust that

their partner wants to receive their help. Without this trust, vulnerability and intimacy are lost. They suggested that exchange relationships decrease trust because it makes partners feel as if they must repay their partners for their good deeds. While this pattern creates equality, it might work to reduce trust, communal responsiveness, and love.

The theory of communal responsiveness ties well to behavioral components of love. Through the actions of providing caring and nurturing responses partners can increase vulnerability, trust, and intimacy. People can also foster love by being willing to seek out and ask their partners for care and support. The behavior of reciprocity also enhances love. Combined, these acts of communal responsiveness serve as base components of love in relationships.

Using a factor analytic approach, Swensen, Nelson, Warner, and Dunlap (1992; see also Swensen, 1972) produced a six-factor solution for describing the components of love. Participants provided items of what they did, said, and felt about their romantic-love partners. Three groups of participants then rated how often they experienced those items and their scores were then factor analyzed. The analysis produced the following six factors: verbal expression of love; self-disclosure; toleration of loved one's bothersome aspects; moral support, encouragement, and interest; feelings not expressed; and material evidence of affection. The behaviors of love indicated by Swensen et al. match closely with findings from other love research. For example, tolerating a partner's bothersome aspects matches with the ideas of forgiveness proposed by Rubin (1970). Communication, support, interest, and material support are common themes in many models of love.

The research literature that conceptualizes love as a single factor is plentiful. The behavioral components of love that make up the sub-factors are varied, although many common themes emerged. Themes such as communication, respect, sexual behavior, trust and fidelity

were found in much of the reviewed work. These themes are also prevalent in the research that takes a multi-factorial approach to love, as is evident in the next section.

### **Multifactor Approaches and Other Conceptualizations of Love**

Theories and research studies that posit that many different types of love exist are reviewed next. These many-loves approaches vary in their conceptualization of love, but many of the same behaviors that were present in the single factor approaches are present in these perspectives.

Lee (1973, 1988) took the approach that there are many kinds of love, as opposed to love being comprised of a single factor with many components. He conceptualized different types of romantic love that he called love-styles (see also Lasswell & Lasswell, 1976). He proposed that people often grow up learning a particular type of love, which will more or less match to their partners' love-styles. He posited that the more similar partners are in love-style the better the relationship will likely be. He also stated that it is quite possible for people to change their love-styles. Inherent in each love-style are different behaviors that are apt to change with alterations in one's love-style. Lee reportedly collected data from 120 heterosexual, community participants of all ages in the streets of cities in England and Canada.

Lee (1988) suggested that love is analogous to a color wheel—that there are some primary colors (or styles) that people can combine in varying degrees to produce nearly any color of the proverbial love rainbow (or can be used to describe any relationship). He described what he called the three primary and three secondary colors of love. Theoretically, each of these styles and their associated behaviors can be more or less present in any romantic relationship. The primary colors of love include Eros, Storge, and Ludus. Eros represents passionate, physical, intense, erotic love. Physical attraction, sex, and sexual behavior are actions commonly experienced by the Eros-style lover. Storge is love that develops over time that focuses on affection and commitment commonly associated with friendships. Sexual behavior is less

important to storgic lovers, but rather they will express and experience their love through maintaining commitments and by engaging in shared activities with their love partners. Ludus represents love marked by game-playing. The Ludus lover does not feel the intense love of Eros, nor the need for commitment experienced in Storge. The Ludus lover behaves in a way that is very focused on the present and may feel little desire to maintain long-term relationships.

The secondary colors of love proposed by Lee (1988) are mania, pragma, and agape. Mania is a combination of eros and ludus. There is an intense desire for the love partner, but contradictory feelings of not liking the partner or not wanting to commit to the partner, which resembles ludus. The manic lover, however, cannot easily disconnect from the lover in the same way that a purely ludic lover can. Pragma is a combination of ludus and storge. The pragma lover takes a practical approach to love. Pragma lovers have a set of criteria that they are looking for in a partner, which may include physical attributes but not in the same way as an eros lover. They are looking for a long-term partner to whom they can commit and will shop around (like a ludus lover) until they meet that person. Agape is conceptualized as a selfless, giving love. The agapic lover feels a duty to love. According to Lee agape is a combination of eros and storge. Agape-style lovers may feel intense love for their partners but they would express it in behaviors that are more consistent with storge. They will be self-sacrificing and very giving and caring to their partners.

Lee (1988) theorized that love is very complex and that these styles are just a beginning to understanding the intricacies of love. The potential combinations of the various love-styles in individual relationships are nearly limitless, but the behaviors in each of Lee's love-styles are not. There are commonalities of caring, commitment, physical expressions of love, shared activities, and expression of affect. The ludus style brings a new set of behaviors to the

discussion. The ability to disconnect from love partners is a behavior rarely discussed in the context of romantic relationships. Lee even admitted that one could argue that this is not love at all, were it not for so many people endorsing these types of love experiences. Acceptance, openness, and tolerance for ambiguity in the relationship (i.e., lack of jealousy) are behaviors associated with ludus. The flexibility of Lee's love-styles helps to describe many different kinds of relationships and many different approaches to love. For example, what works for the ludus-style lover would surely not work well for partners in a more traditional conceptualization of love. As Lee proposed, it is important that partners be closely matched in their love-styles.

Research by Mathes (1980) challenged Lee's "colours of love". Mathes conducted a factor analysis on participants' responses to love items taken from Lee's love styles. The sample consisted of 56 dating couples. The average age of male participants was 19.76 years old and the average age of female participants was 18.73 years old. Contrary to Lee's theory of love, results showed that only one factor emerged. Mathes proposed that romantic love is consistent with what Lee called eros and that the ludus type of love is antithetical to romantic love. Research by Hendrick and Hendrick (1986) supported Lee's work by suggesting that the love types can indeed be measured and that they have stability as factors.

Hatfield (1988; see also Berscheid & Walster, 1974; Hatfield & Walster, 1978; Hatfield & Sprecher, 1986; Singelis, Choo, & Hatfield, 1995) described two forms of love, passionate and companionate love. She defined passionate love as an intense type of love with a strong sense of physical attraction and arousal. She also argued that it can be intensely pleasurable but can also cause considerable pain if unrequited. Behaviors associated with this type of love include serving the other person, physical closeness, studying the other person, and working to understand the other person's feelings. Passionate lovers are often driven by intense feelings, both positive and

negative, which they experience regarding the other. In contrast, companionate love is “the affection we feel for those with whom our lives are deeply entwined” (Hatfield, 1988, p. 205). Hatfield described companionate love as having much more intimacy and closeness with the other person. In companionate love there is a desire to get to know the other partner on a much deeper cognitive and emotional level than seen in passionate love. Companionate lovers will behave in ways that maximizes their likelihood of increasing intimacy. They will spend much time in close physical proximity touch or gazing into one another’s eyes. Companionate love increases with more positive experiences and, unlike passionate love, decreases with negative experiences. Hatfield explained that the two categories are not mutually exclusive and that many relationships include aspects of each type of love. Rather, she said that the difference is the emphasis in each type—passionate love focuses on intense positive and negative feelings whereas companionate love focuses more on positive interactions. Hatfield suggested that most people in relationships seek to have components of both types of love in their romances. In addition to her descriptions of behaviors inherent to the love styles, she prescribed a few actions that individuals can take in order to increase their intimacy. She encouraged partners to accept themselves and their partners as they are. She also proposed that people work to express themselves and their feelings and that they should learn how to deal with their lover’s reactions to their own behaviors. In all, the behaviors in these types of love match the behaviors seen in many of the other models including: physical closeness, communication, serving the other person, and intense sexual arousal. She highlighted the need for partners to accept themselves and each other, as well as the need for people to learn coping skills to deal with the reactions of their partners. These actions seem vital for increasing intimacy.

Buss (2006) outlined a theory that proposed that love is both a cause *and* an effect of certain behaviors. Buss studied participants of all ages in many cross-cultural settings seeking the universal aspects of love, romantic relationships, and sexual behavior. He suggested that certain actions elicit feelings of love and that feeling loved has been evolutionarily adaptive. For example, he stated that love is a commitment device—that feeling loved helps to ensure that partners will stay together even through difficult times. Further, partners will likely feel loved when they experience commitment. Love is both an antecedent and consequence of behavior. Buss found that many different behaviors indicate commitment and that commitment can take many forms. These behaviors include providing resources (such as shelter and food), a commitment of sexual resources (maintaining sexual fidelity to the partner), reproductive resources (having children together), and parental resources. He proposed that all of these actions involve some level of self-sacrifice and signify the presence of love. He contended that emotional commitment (e.g., talking with

The research on love is nearly as many-splendored as love itself. However, examining the literature reveals a few noteworthy points for critical discussion. Most pertinent to the current project is one's partner about his or her stresses) is another example of behavior that increases love and produces love.

Theories and research that adopt the view that there are many different types of love were reviewed. Including many different types of love broadens how we understand love and broadens the definition of a loving relationship. For example, Lee's game-playing love style might not be accepted by many as love, but it does describe the experience of some people and in that way is important to consider in the discussion of love. Love is complex. Having many approaches may hold the key to understanding it better.

## Critical Review of the Literature

One critique of the reviewed literature is the common practice of researchers using samples of convenience to gather data. Many of the reviewed articles and love theories are based on the experiences of undergraduate college students. A few notable exceptions are the work by Gottman and the work of Lee. Gottman recruited couples from the community to come participate in his lab and Lee went to the streets of cities in England and Canada for his participants. In creating theories of love based on the experience of college students, scholars potentially miss out on the insight and experience of adults beyond early developmental stages of romantic relationships. Generalizing results from college students to all adults may include components of love that adults do not have or miss altogether important considerations in adults' experiences.

Another critique of the love literature reviewed here is that it is primarily based on self-reports. Gottman's work is again the exception. He examined participants' physiological and emotional responses (e.g., heart rate, facial expressions of emotion). Using self-reports can be useful particularly when studying such an ambiguous topic as love. After all, who knows better than the participants how they experience love. But it is worthwhile to note the limitations of using self-reported data.

A third critique of the literature is that much of it appears to be deferential to just a few research protocols. Many different articles included the same references to earlier work. Some of the articles examined and tested those theories, but it occasionally appeared as if researchers uncritically generalized previous findings to different populations. Two examples of this critique are researchers' apparent deference to Sternberg and their apparent opposition to Lee. Many of the reviewed articles cited Sternberg and his triangular theory of love. A lot of subsequent research has examined those components, but part of Sternberg's work was based on research

using a small sample with a limited age range. A different example is the treatment of Lee's love styles. A number of papers appeared to negate Lee's love styles with little acknowledgement of the ways that those approaches might have value. Admittedly it is not the responsibility of each paper to question all previous research and theory, but reviewing the literature made it clear that questioning some of the early research may prove valuable.

### **Summary**

In reviewing the literature it is clear that love is amorphous and indeed quite complex. But it also becomes clear that there are many concrete, behavioral components of love as well. Many of these behaviors are found in the models of love; many elements of which are quite similar to the factors and items in Heesacker et al.'s DLBS (1998). Caring, communication, providing support, respect, and sex all are common pieces in several of the love models. However, many other behavioral components are present in love relationships including: accepting influence from each other, advocacy, commitment, conflict regulation, creating shared meaning, desire, doing things together, enjoyment of each other, exclusivity, expression of positive affect, forgiveness, honesty, nonverbal expressions of love, responsiveness, self-sacrifice, tolerance, trust, vulnerability, and in some love styles even game-playing.

Review of the empirical literature provided evidence supporting the validity of the factors of the Desired Loving Behavior Scale. Reading through the literature reveals that the items found in the DLBS are not complete in describing what every couple would desire from their romantic relationship. However, it also clear that the factors elucidated in the DLBS represent many of the common features that couples look for and want in their relationships.

## CHAPTER 3 METHODS

The current project included two phases. Participants created items for the new DLBS in Phase 1. Phase 2 then used the items provided in Phase 1 to develop the new version of the DLBS and to test the proposed hypotheses.

### Phase 1

**Participants** A wide variety of participants was recruited in order to get a general sample. College students at a large Northeastern university were asked to forward the survey to family and friends, 18 years of age and older, not currently enrolled in undergraduate college courses. Participants that completed the survey were also asked to forward the survey to other people meeting the criteria.

This method, known as “snowballing,” is designed to yield a diverse sample. One hundred ten people completed the survey (80 women, 30 men). The average age of the participants was 35.25 years ( $SD = 12.33$ ) ranging from 19 to 78. Of those reporting ethnicity, 82 (76.6%) identified as European-American, 13 (12.1%) identified as other, 5 (4.6%) as African-American, 5 (4.6%) as Latino/Latina, and 2 (1.8%) identified as Asian-American. People recording ethnicity as “other” reported a variety of ethnic backgrounds including Indian, African, Caribbean, multiracial, Chinese, Portuguese, and Spanish. Half (55) of the participants who responded indicated that they were married, 20 (18%) indicated they were single, not currently in a relationship, 20 (18%) indicated they were single but currently dating someone, 5 (4.5%) reported their relationship status as other, 4 (3.6%) said they were cohabiting, 5 indicated that they were divorced, with 2 participants reporting that they had remarried, and 1 person indicated being widowed but remarried. The average relationship length was 12.53 years ( $n = 85$ ,  $SD = 12.7$ ) with a range of two months to 58 years. Forty-three out of 100 people reported that they

have children, 24 of which reported that they were still the primary caregivers for their children (i.e., their children are still dependent on them). The average number of children was 2.5 ( $SD = 1.35$ ). The majority of participants indicated that they worked full time ( $n = 69, 62\%$ ) followed by graduate students (18, 16%), part-time (14, 12.6%), other (5, 4.5%), unemployed (3, 2.7%), and retired (2, 1.8%). Participants reported annual income as follows: Less than \$15,000 (13, 11.9%), \$15,001-\$30,000 (22, 20%), \$30,001-\$50,000 (22, 20%), \$50,001-\$75,000 (27, 24%), \$75,001-\$100,000 (14, 12.8%), and Greater than \$100,000 (11, 10%). Of those reporting sexual orientation, 102 (93%) were heterosexual, 6 (5%) were gay or lesbian, and 2 (2%) were bisexual.

**Measures** Participants were asked to freely respond to five items asking them to write in specific behaviors they desired in order to feel loved by their romantic partners (see Appendix A). Participants also completed demographic items.

**Procedure** Participants were recruited via the Internet using a snowball technique. The survey was completed on-line. Participants completed an on-line informed consent document prior to participating in the protocol. Upon completion of the surveys, participants were debriefed and thanked.

## Phase 2

**Participants** As in Phase 1, a wide variety of participants was sought in order to get a broad sample across such demographic information as age, gender, marital status, parenthood, and career status. To run a principal components factor analysis, approximately five participants were needed per questionnaire item. To meet this criterion, 600 participants were recruited for this phase. Participants for Phase 2 were recruited from non-collegiate samples utilizing the same method as in Phase 1. Undergraduate students from two large, public universities in the Southeast and Northeast and one small private university in the Midwest were asked to forward

the survey to friends and family who were not currently enrolled in undergraduate college courses.

This snowball method of enlisting participants again yielded a diverse sample. Six hundred and eighty-one people completed the survey. Thirty-four participants indicated that they were currently enrolled in undergraduate courses and were thus excluded from the sample. The demographic information for the remaining participants follows. Of those completing the demographic information 394 (71.5%) were women and 157 (28.5%) were men. The average age of the participants was 41.6 years ( $SD = 13.4$ ), the median age was 44 and the mode was 51. Participants ranged in age from 18 to 83 years old. Ninety-five percent of those indicating sexual orientation identified as heterosexual (521), with 3.3% (18) identifying as gay or lesbian, and 1.3% (7) identifying as bisexual.

Of those reporting ethnicity, 469 (85.9%) identified as European-American, 27 (4.9%) identified as Hispanic/Latino/Latina, 20 (3.7%) as African-American, 12 (2.2%) as Asian-American, and 18 (3.3%) reported ethnicity as other including Native American/Pacific Islander, Caribbean, Middle Eastern, Indian, African, and mixed ethnicity. Three-hundred and nineteen (58.7%) participants in the sample indicated that they were married, 75 (13.8%) indicated that they were single but currently dating someone, 66 (12.2%) indicated that they were single and not currently in a relationship, 27 (5.0%) indicated they were cohabiting, 27 (5.0%) indicated that they were divorced and remarried, 16 (2.9%) indicated that they were divorced and single, 8 (1.5%) reported being widowed, and 5 (0.9%) reported being widowed and remarried.

The average reported relationship was 16.6 years ( $n = 427$ ,  $SD = 12.6$ ) in length, with a range of one month to 49 years. Three-hundred sixty-six of 515 (71.1%) participants reported that they had children. The modal number of children for those participants was 2 with a median

of 2.5 with a range of 1 to 7. Two hundred fifty one people reported that they were still the primary caregivers for their children (i.e., their children are still dependent on them). The average number of children for whom the participants reported being the primary caregiver was 1.4 ( $SD = 1.14$ ). The majority of participants indicated that they worked full time ( $n = 347$ , 63.2%) followed by part-time (108, 19.7%), graduate students (33, 6.1%), retired (28, 5.1%), unemployed (23, 4.2%), and other (10, 1.8%). Participants reported annual income as follows: Less than \$15,000 (65, 12.1%), \$15,001-\$30,000 (70, 13.0%), \$30,001-\$50,000 (118, 21.0%), \$50,001-\$75,000 (102, 19.0%), \$75,001-\$100,000 (72, 13.4%), Greater than \$100,000 (105, 19.5%), and other (6, 1.1%).

**Measures** Participants were asked to record the extent to which they desire each of the newly created items in order to feel loved by their partners. The original items from the DLBS were included along with the new items. Demographic information was also collected.

**Procedure** Participants completed an on-line informed consent document prior to participating in the protocol. The survey was conducted on-line. Participants were informed that after responding to the surveys they could vote for one of their favorite charities and that the charity receiving the most votes would receive \$1 for every 10 completed surveys. Upon completion of the surveys, participants were shown a debriefing page describing the purpose of the research that included contact information for follow-up or questions.

Because of the large number of items and the large number of participants needed to run a factor analysis, Phase 2 used a planned missing data procedure. Schafer and Graham (2002) described the planned missing-data procedure (see also Graham, Cumsille, & Elek-Fisk, 2003; Graham, Taylor, Olchowski, & Cumsille, 2006). In brief, the participants and the items are divided into three groups. Each group of participants completes two-thirds of the items. Each

group of items is completed by two groups of participants, with overlap. For example, Participant Group 1 completes Item Groups 1 and 2, whereas Participant Group 2 completes Item Groups 2 and 3. Finally, participant group 3 completes Item Groups 1 and 3 (see Table 3-1). This method results in one third of the data being missing. However, the missing data can be imputed from the existing data with reasonable accuracy. The maximum likelihood method was employed to estimate values for the missing data. Schafer's (1999) estimation program (NORM) was used to create parameter estimates and to run a single imputation that provided accurate estimates of the missing data. Schafer (NORM; 1999) reported that a single imputation of missing data is robust and adequate for the purposes of running exploratory analyses. The estimated values were rounded to the nearest observed value in the data set.

Participants were instructed to complete one of the variations of the survey based on the day of their birth. Participants born in the first four months of the year completed Item Set 1 (Item Groups 1 and 2), participants born in the second four months of the year completed Item Set 2 (Item Group 2 and 3), and participants born in the last four months of the year completed item set number three (item group 1 & 3; See Table 3-1). To control for order effects, the order of the items was varied across the different sets of items. The number of people completing each item set was roughly equivalent (Set 1 = 211, Set 2 = 237, Set 3 = 199). The responses of the participant groups were examined using an Analysis of Variance (ANOVA) with Bonferroni *post-hoc* tests. Statistically significant differences were found in Factor 2 [ $F(2, 644) = 3.1, p = .046, \eta_p^2 = .01$ ] and Factor 3 [ $F(2,644) = 5.88, p < .01, \eta_p^2 = .018$ ]. Bonferroni *post-hoc* analyses revealed statistically significant differences between Participant Groups 1 and 3 on Factor 2 ( $p = .039$ ) and Factor 3 ( $p < .01$ ). Because of these differences additional ANOVA's were conducted to analyze for group differences in demographic variables. Participants did not differ on any of

the demographic variables as a function of which form they took. The data imputation might be responsible for the participant group differences because the missing, and therefore estimated data, appears to be confounded with participant group membership. Participants completing Item Set 1 did not complete any of the items in Factor 2 (i.e., data for those items were imputed). Likewise, participants completing Item Set 3 did not complete any of the items in Factor 3 – those too were imputed. However, all of the imputed items were estimated based on responses completed by other participants completing those forms. Because the imputed data is created based on the actual reported data the two data sets should theoretically be related, not different. Context effects could account for these differences. The order that participants received the items could have impacted their responses. Participants were assigned to the groups based on the month of their birth with the assumption that there is no connection between month of birth and loving desires. No other order effects appear in the responses. Correlations between the means of the observed data and the imputed data for all forms were very strong (as they should be) suggesting that these differences might be a spurious result or some other unseen context effect.

It is also possible that these differences occurred by chance, especially with such a large sample. In such a large sample any effects might be magnified, particularly given that the Partial Eta squared values were indicative of small effects. In this circumstance, the Partial Eta squared represents the variance accounted for by the effect compared to the total variance. With one factor in the ANOVA Partial Eta squared is numerically identical to Eta squared and can be interpreted as a percentage of variance accounted for; similar to an  $r^2$  value. As such, the significant difference between Groups 1 and 3 found in Factor 2 accounts for 1% of the variance and the difference found on Factor 3 accounts for 1.8% of the variance. Future research using a confirmatory factor analysis without a planned missing data design is likely to clarify these

issues (see the Chapter 5 section on future research). There were no other statistically significant differences on any of the other factors as a function of the item set participants completed.

**Data Analysis** Data were analyzed using a principal components factor analysis with Varimax rotation to reduce the number of items on the DLBS. Inspection of the resulting scree plot and factor loadings was used to determine the number of factors. Items having a factor loading with an absolute value of at least .30, which also loaded less than an absolute value of .30 on any other factor were considered to have achieved simple structure and therefore were included on that factor (Grimm & Yarnold, 1995). Cronbach's  $\alpha$ 's were calculated to examine item cohesion.

**Hypothesis Testing.** A number of different methods were used to test the various hypotheses. The factor structure (Hypothesis 1) of the new DLBS was analyzed using a principal components factor analysis with Varimax rotation and scree plot analysis. Internal consistency was examined using a Cronbach's  $\alpha$  internal consistency analysis. Gender differences (Hypotheses 2 and 3) on the DLBS subscales were examined using t-tests. Pearson Product Moment correlations were conducted to test Hypotheses 4 and 5, looking at the relationship between age, relationship length and DLBS factors. Hypothesis 6, which assessed whether or not having children influenced desires, was examined using t-tests. Also, correlation analyses were conducted to see if a relationship existed between the number of children people had and their desires. An ANOVA was conducted to assess differences on the new DLBS factors as a function of work status and income.

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Table 3-1 Diagram of Planned Missing Data Design

<u>Participant Group</u>	<u>Item Group</u>		
	<u>1</u>	<u>2</u>	<u>3</u>
1	Completed	Completed	Missing
2	Completed	Missing	Completed
3	Missing	Completed	Completed

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## CHAPTER 4 RESULTS

### Phase 1

Participants generated over 500 responses, many of which were redundant. Duplicate items were removed and all of the responses were edited for grammar and wording. Items were also edited to be gender neutral. Phase 1 yielded 125 non-redundant items to be used in Phase 2.

### Phase 2

**Planned Missing Data Analysis** Analysis of the missing data revealed that, as expected, between 33%-43% of the data were missing in each item group. Parameter estimates were calculated for each item group based on the observed data and a single imputation was completed for each group of items. Histogram plots of the imputed items closely mirrored plots of the observed items (See Figure 4-1). The means and standard deviations of the observed and imputed values were also highly correlated (Means:  $r = .97, p < .001$ ; SD's:  $r = .93, p < .001$ ).

**Factor Analysis** A principal components factor analysis with Varimax rotation was run and yielded 49 factors with eigenvalues over one. Analysis of the scree plot (See Figure 4-2) indicated that a six-factor solution parsimoniously accounted for the most variance. However, all of the items in the sixth factor cross-loaded onto other factors and consequently it was dropped. The resulting five factors, with a total of 46 items (see Appendix B), accounted for 32% of the total variance. Factor one included 14 items and represents ideas of providing support to each other in the relationship. Factor one is titled "Relationship Support". Factor two has 8 items and represents notions of romance and indications of why the individual is loved in the relationship. Factor two is labeled "Personal Support". Factor three consisted of 8 items and included items regarding loving statements that a person desires to hear from their partner. Factor three is titled "Scripting". Seven items make up factor four. The items all involve desires for being respected

in the relationship and the factor is titled “Respect”. The nine items in factor five all relate to desires for sex and a healthy sexual relationship. Factor five is called “Sex”. Items are averaged and combined producing a mean score of the items for each factor. A score for the Total scale is also calculated. The Total scale is scored by averaging all of the items together.

**Cronbach’s  $\alpha$**  To verify internal consistency reliability analyses were conducted for each factor and for the total scale. The new version of the DLBS proved to have adequate internal consistency (Relationship Support  $\alpha = .91$ , Personal Support  $\alpha = .86$ , Scripting  $\alpha = .87$ , Respect  $\alpha = .84$ , Sex  $\alpha = .86$ , Total scale  $\alpha = .90$ ).

A correlation matrix was run to examine the relationships among the factors and the total scale. All but one pairing were found to be significantly correlated to one another. Factors 4 and 5 were not correlated with each other. The remaining factors including the total scale all correlated with each other. Theoretically it follows that the factors are all related. However, it should be noted that the threshold for significance is easily met with such a large sample. Examination of effect sizes showed that these relationships range from small to large with many of the effects falling in the small range (See Table 4-1).

**Hypothesis Testing** The resulting 46 items combine to form the new version of the DLBS, the DLBS-2. As outlined above, scores on the DLBS-2 were computed for each factor by averaging the items in each factor. A total score for all items was calculated using this same method. The factors of the DLBS-2 were then used to examine the hypotheses proposed in Chapter 1.

Hypothesis 1 predicted that the factor structure of the new version of the DLBS will match the structure of the original DLBS. This hypothesis received partial support. Three factors from the original DLBS appear to be reflected among the new factors, Relationship Support, Scripting,

and Sex. Caring Actions did not seem as important to the non-collegiate sample because that factor did not re-emerge in the DLBS-2. Two additional factors not seen in the collegiate sample appeared in the life-span sample, Personal Support and Respect. At the level of individual items, 12 items from the original DLBS remained on the DLBS-2.

Hypothesis 2 predicted that women in the sample would desire more relationship support than men in order to feel loved. A *t*-test revealed a statistically significant difference with women scoring higher than men [ $t(549) = 5.49, p < .001$ ; a small effect,  $d = .37$ ]. See Table 4-2 for means and standard deviations of all *t*-tests and ANOVAs. Hypothesis 3 predicted gender differences in desires for sex as it relates to love and was supported. Men desired significantly more sex than did women [ $t(549) = 3.244, p < .005, d = .27$ , a small effect]. A statistically significant inverse correlation supported Hypothesis 4. There was an inverse relationship between age and desires for sex ( $r = -1.22, p < .005, r^2 = .015$ ), a small effect. Hypothesis 5 predicted a negative relationship between the length of relationship and all of the original DLBS factors. Hypothesis 5 received partial support. The prediction that there would be an inverse relationship between relationship length and desire for sex in order to feel loved was supported ( $r = -.129, p < .01, r^2 = .017$ ), but it was a small effect. Incidentally, age and relationship length were predictably correlated ( $r = .78, p < .001, r^2 = .61$ , a large effect). Also, the total DLBS-2 score inversely correlated with relationship length ( $r = -.111, p < .05, r^2 = 0.012$ , a small effect). There were no other significant correlations between relationship length and any of the other DLBS-2 factors. However, it was not possible to examine the correlation between relationship length and caring actions because caring actions did not emerge as a factor in the DLBS-2.

Hypothesis 6 suggested that couples without children will desire more sex, relationship support, and scripting to elicit feelings of love. This hypothesis received partial support. Whether

or not participants had children was recoded into a dichotomous variable and Hypothesis 6 was then tested using a *t*-test. People without children desired more Relationship Support [ $t(645) = 2.26, p < .05, d = .18$ , a small effect] and Sex [ $t(645) = 2.59, p < .05, d = .20$ , a small effect] to feel loved. However, there was no difference in Scripting [ $t(645) = 0.61, ns$ ]. A correlation was then conducted to see if there was any relationship between the factors and the *number* of children. None of the relationships between the number of children and the DLBS-2 factors achieved conventional levels of statistical significance.

**Ancillary Analyses** In addition to the hypothesis tests, exploratory analyses were conducted on the data. As mentioned previously, gender differences were predicted and found on the Relationship Support and Sex subscales. Additional *t*-tests revealed other gender differences. Participants also differed on the other three DLBS-2 factors as a function of participant gender. Women desired more Personal Support [ $t(549) = 4.28, p < .001, d = .37$ , a small effect], Scripting [ $t(549) = 2.67, p < .01, d = .23$ , a small effect], and Respect [ $t(549) = 5.94, p < .001, d = .51$ , a medium effect] to feel loved as compared to men. An ANOVA was also conducted to examine group differences in the DLBS-2 factors based on work status. Differences were found in Factor 2 [ $F(7, 541) = 2.24, p < .05$ ] and Factor 4 [ $F(7, 541) = 2.49, p < .05$ ]. Bonferroni post-hoc analyses revealed that participants that reported their work status as “Graduate Student” desired more “Personal Support” to feel loved than people that reported working full-time ( $p < .05$ ). Analysis of Factor 4 differences found that graduate students desired more “Respect” to feel loved than participants who reported their work status as “Other” ( $p < .05$ ). Participants who recorded that work status as “Other” included four homemakers, two self-employed workers, and one person in-training to become a full-time worker. The small number of people in this group suggests caution in generalizing from this finding.

Income was also analyzed using an ANOVA. No differences on any of the factors were found based on the participants' income. While this is not an appropriate test for confirming that differences do not exist in love based on one's income, it is nonetheless informative that there were no differences based on income in such a large sample.

Additional *t*-tests revealed other differences in people with vs. without children. Testing of Hypothesis 6 found that people without children desired more Sex and Relationship Support in order to feel loved. Ancillary analyses found that people without children also desired more Personal Support [ $t(645) = 2.1, p < .05, d = .17$ , a small effect] and that, in general, people without children desired more from their partners to feel loved, as demonstrated by significant differences on the Total DLBS-2 scale [ $t(645) = 3.2, p < .005, d = .25$ , a small effect].

In summary, results suggest that the data collection successfully produced a survey assessing desired loving behaviors in a non-collegiate sample. The survey includes five factors: Relationship Support, Scripting, Personal Support, Respect, and Sex. Hypothesis testing and ancillary analyses revealed differences on these factors based on participant gender, age, parenthood status, work status, and the length of the relationship. Additionally, inverse correlations were found among age and desire for sex, and in relationship length and desire for sex as it relates to love.

Table 4-1 Correlations of the Factors and the Total Scale

		Correlations of DLBS-2 Factors					
		Relationship Support	Personal Support	Scripting	Respect	Sex	Total
Relationship Support	Pearson Correlation	1.000	.160(**)	.140(**)	.230(**)	.301(**)	.680(**)
	Sig. (2-tailed)		0.000	0.000	0.000	0.000	0.000
	N	647	647	647	647	647	647
	Effect size ( $r^2$ )		.0256	.0196	.0529	.091	.462
Personal Support	Pearson Correlation	.160(**)	1.000	.271(**)	.515(**)	.083(*)	.613(**)
	Sig. (2-tailed)	0.000		0.000	0.000	0.035	0.000
	N	647	647	647	647	647	647
	Effect size ( $r^2$ )	.0256		.0734	.265	.0069	.376
Scripting	Pearson Correlation	.140(**)	.271(**)	1.000	.162(**)	.151(**)	.578(**)
	Sig. (2-tailed)	0.000	0.000		0.000	0.000	0.000
	N	647	647	647	647	647	647
	Effect size ( $r^2$ )	.0196	.0734		.0262	.0228	.334
Respect	Pearson Correlation	.230(**)	.515(**)	.162(**)	1.000	0.035	.542(**)
	Sig. (2-tailed)	0.000	0.000	0.000		0.371	0.000
	N	647	647	647	647	647	647
	Effect size ( $r^2$ )	.0529	.265	.0262		.001	.294
Sex	Pearson Correlation	.301(**)	.083(*)	.151(**)	0.035	1.000	.570(**)
	Sig. (2-tailed)	0.000	0.035	0.000	0.371		0.000
	N	647	647	647	647	647	647
	Effect size ( $r^2$ )	.091	.0069	.0228	.001		.3249

Note. Effect sizes indicate amount of variance explained by each factor. Effect sizes ( $r^2$ ) values below .01 are considered negligible, values between .01 and .059 are considered small effects, values between .059 and .138 are considered medium effects, and values above .138 are considered large effects.

\*\* . Correlation is significant at the 0.01 level (2-tailed).

\* . Correlation is significant at the 0.05 level (2-tailed).

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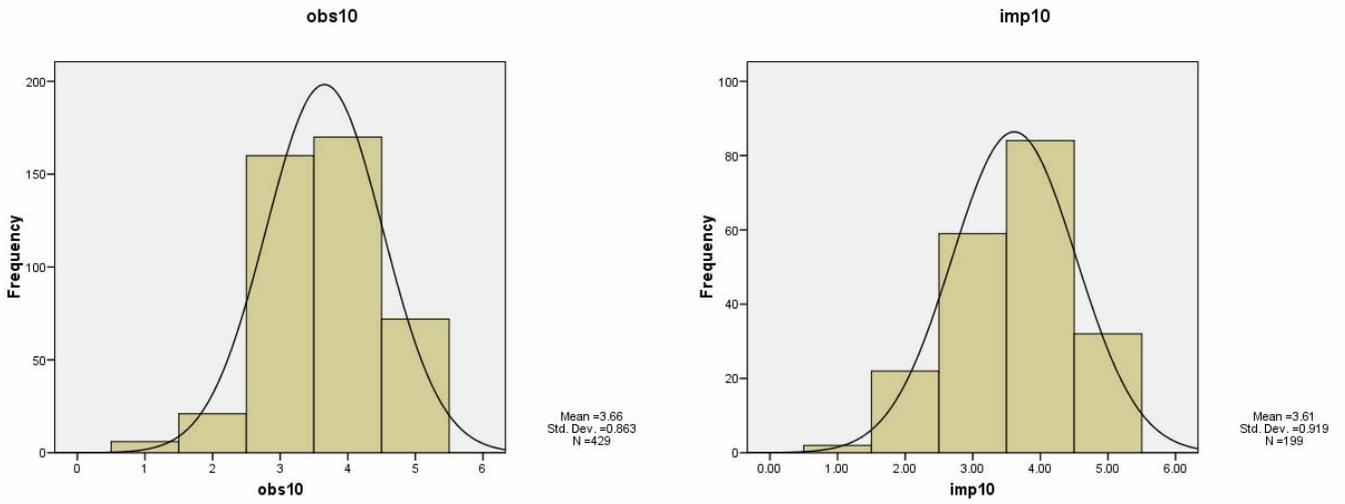
Table 4-2 Means and Standard Deviations of significant *t*-tests and ANOVA's

Means and Standard Deviations

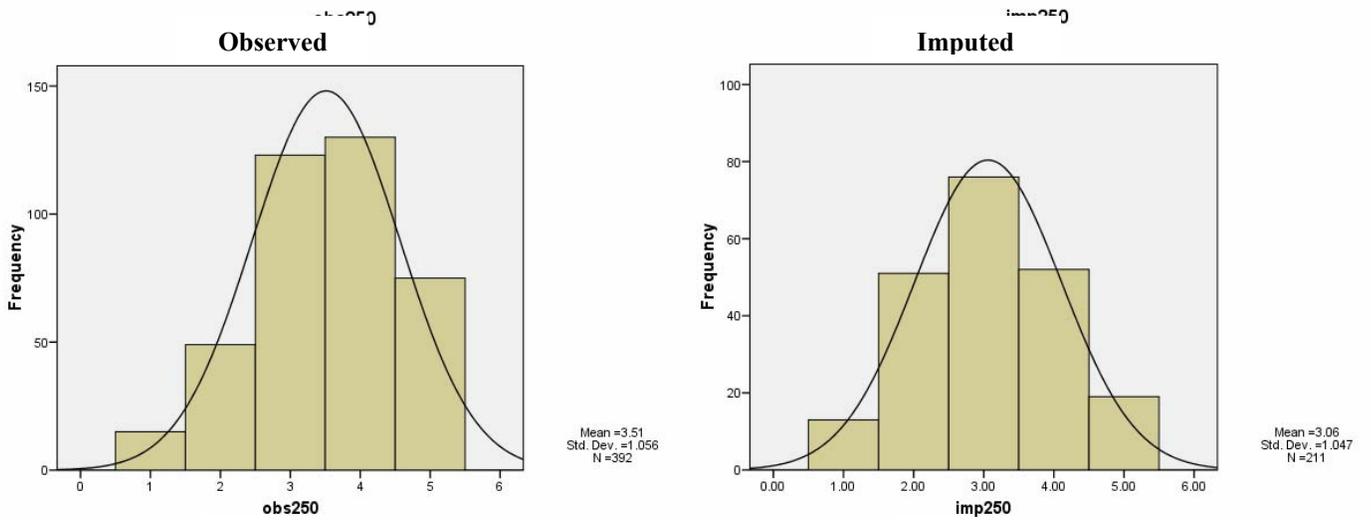
	Women	Men	Parents	Non-parents	Grad Students	Full-time work	Other work status
Relationship Support	4.24 (.50)	4.04 (.50)	4.13 (.55)	4.25 (.52)			
Personal Support	3.52 (.68)	6.24 (.68)			3.92 (.79)	3.40 (.69)	
Scripting	3.45 (.75)	3.26 (.74)	3.37 (.75)	3.42 (.83)			
Respect	4.33 (.52)	4.02 (.59)			4.55 (.35)		3.83 (.53)
Sex	2.63 (.67)	2.84 (.75)	2.64 (.69)	2.81 (.74)			
Total DLBS	3.67 (.38)	3.53 (.39)	3.60 (.38)	3.71 (.40)			

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Figure 4-1 Sample histograms demonstrating similarities in Observed and Imputed data

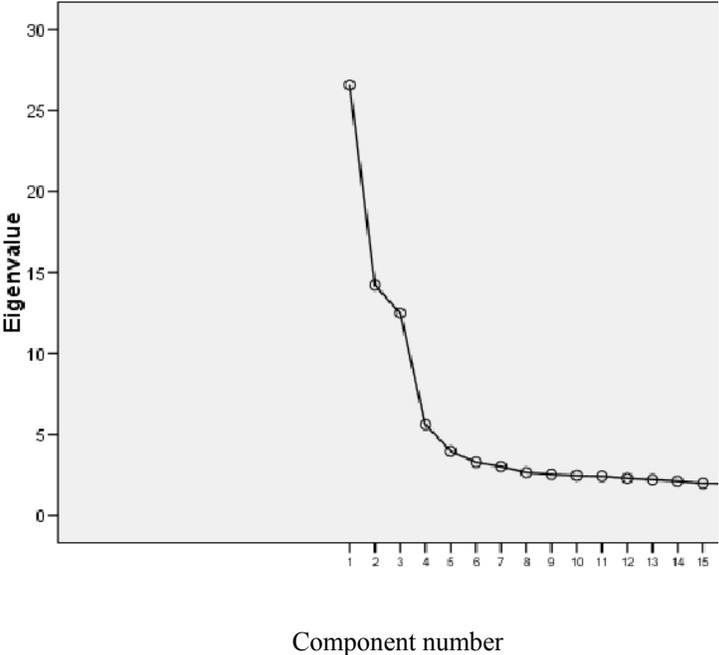


Note. Observed data and imputed data for item 1.



Note. Observed data and imputed data for item 22.

Figure 4-2 Scree Plot of Factor Analysis Showing eigenvalues and Component Numbers.



## CHAPTER 5 DISCUSSION

### **Phase 1 – Love is Simple, not Easy, but Simple**

Participants in Phase 1 produced an abundance of items. Some of the items were heart-warming (e.g., snuggle together on the couch), some were depressing (e.g., “I wish he would just listen to me once in a while”), and some were even funny (e.g., clean up the dog poop in the yard”). Even with the wide array of items there was a commonality to what people desired in order to feel loved by their partners – that is, love is simple, not easy, but simple, at least according to these data.

Even though the items produced in this study represent relatively simple things, these data should not be construed to suggest that love and romantic relationships are easy. Even with the list of simple things, the actions desired by lovers require work, commitment, and at the most basic level, awareness. If people are unaware of what their partners desire in order to feel loved, they will fail to fulfill those desires. Even if people *are* aware, they are still required to be willing to provide them and to maintain commitment to providing those desired loving behaviors. Moreover, as Phase 2 revealed, desires for these behaviors appear to change over time. People and relationships are dynamic. Couples may need to revisit their desires on a regular basis and to take inventory of what they desire, what they are receiving, and how those behaviors are changing over time and with changing circumstances (e.g., children, age, length of relationship).

### **Phase 2**

#### **Factor Analysis of the DLBS-2**

Analysis of the items produced in Phase 1 yielded five coherent factors with strong internal consistency. The five factors relate closely to other previous research. Hypothesis 1 predicted that the factors found in the DLBS will be evident in the DLBS-2. Three of the factors

on the original DLBS were retained in the DLBS-2, namely Relationship Support, Scripting, and Sex. However two new subscales emerged, Personal Support and Respect. These factors differ from the original DLBS, but are similar to factors found in other relationship research. For example, Critelli, Myers, and Loos (1986) came up with five factors in their research. Their factors generally mirror those of the DLBS-2. Aspects of their Communicative Intimacy scale are found in the Scripting and Relationship Support scales of the DLBS-2. DLBS-2 Sex subscale is reflected in Critelli et al.'s Physical Arousal scale while Respect is a factor common to both their study and my study. Romantic Compatibility and Romantic Dependency are reflected in the Relationship Support and Personal Support scales of the DLBS-2.

The five factors in the DLBS-2 also represent concrete, behavioral aspects of Sternberg's (1988) more theoretical, relationship research. Sternberg (1988) proposed three theoretical components of love: intimacy, passion, and commitment. The Sex subscale readily translates into passion, Scripting and Personal Support reflect components of intimacy, and Relationship Support and Respect fit within Sternberg's concept of commitment.

Caring actions, a factor of the original DLBS, was not retained in the current research. Items reflecting this factor were produced by participants in Phase 1. However, the factor did not emerge as a strong component in the DLBS-2. Analysis of the factors with an eigenvalue over one suggested that such a factor was present, but it did not account for much variance in the current sample. The reasons for this result could be many. One explanation is that people might desire more caring actions at the beginning of their relationships. There was great variability of relationship length in the current sample including some new relationships, but the average length of relationship was 16.6 years (SD = 12.6 years). The participants used to create the DLBS were likely in a very different stage of relationship development (i.e., attraction and

relationship building as opposed to relationship maintenance) than those used to create the DLBS-2. Also, differences could be caused by cohort effects. Older generations might desire fewer actions than younger generations. Any differences found between the DLBS and DLBS-2 might be caused by differences in the social environment in which participants were raised or the one in which they are presently embedded. Dion and Dion (2006) proposed that love is a culture-bound phenomenon. Culture is dynamic and always evolving.

One of the driving factors leading to this project was the belief that having and caring for children would be a major influence on the reported desires of those individuals with children. Surprising to this author, no such factor emerged in the factor analysis. Participants in Phase 1 produced items regarding caring for children but these items did not account for much variance in Phase 2. Group differences between people with and without children were found in the desires on the factors that emerged (which will be discussed in more detail later in this chapter), but because of the large impact of children on romantic relationships I expected a larger effect. The data suggest instead that there are more important factors in producing feelings of love than those linked to providing care for children. That does not mean that caring for children is *unrelated* to feeling loved (although the design of this study cannot confirm or deny this relationship), but simply that other, more influential factors related to feeling loved emerged.

In a similar vein, there was a common theme in the responses in Phase 1 that did not survive the winnowing that occurred in Phase 2. A number of participants wrote that they wanted to just be held, or that they wanted to be intimate with their partner without it leading to sex. Other similar items included, “waiting for me to be ready to have sex”, or “not pressuring me to have sex”. The fact that these items were not retained in Phase 2 suggests that there are more important contributors to feeling loved. However, the issues of readiness for sex and social

pressure to have sex are important ones. It may simply be that these issues are important, but relatively unrelated to feeling loved. People might still feel loved even though they feel a mismatch between their own sexual desire and that of their partner. In therapeutic settings it will be important to assess for such discrepancies even though these items are not on the DLBS-2. One possible solution for therapists using the DLBS-2 with clients is to have them take fill out the DLBS-2, but then also leave blanks at the end to write in other things that they desire in order to feel loved.

Another common item produced in Phase 1 that was not retained in Phase 2 was the desire to hear the partner say “I love you”. Many participants indicated that they wanted their partners to say they loved them, in order for them to feel loved. However, there were also many people that supported the view that “actions speak louder than words.” That is, they did not want to hear “I love you,” at least not without some action supporting the words. Rationally it follows that it should load onto the Scripting factor; however that was not the case. In reviewing the factor analysis, the “Say ‘I love you’ item” loaded onto Factor 8 (below the cut-off point indicated by the scree plot) and it cross-loaded on another factor. This failure to achieve simple structure necessitated that the item be dropped even though it has high face validity. The effect on scale validity of including or excluding any one item is likely to be negligible because a lot of variation in feeling loved will be captured by the other items. However, it might be worthwhile to include it as an item in clinical settings, or at least to include it as a topic of discussion with a couple in counseling. Asking participants what it means for them to hear “I love you” from their partners and asking whether that is important to them might facilitate further discussion in a therapeutic setting.

## Hypothesis Testing

Hypothesis 2 predicted that women would desire more relationship support than men in order to feel loved. Hypothesis 2 was based on a consistent gender difference found on that subscale of the DLBS (Tiegs et al., 2008). These gender differences were upheld in the current sample. It appears that women, more than men, want to feel support in the relationship. This finding suggests that women desire to focus more on the relationship at least as it pertains to these items in order to feel loved. Popular theories have suggested that women are interested in romantic relationships whereas men are not. One way of interpreting women's greater desires for relationship support to feel loved might be just that—the fact that women are more interested in the relationship. However, a more accurate interpretation might be to say that women are more interested in working on the relationship *in that way*. It doesn't appear that men are uninterested in the relationship. It just might be that they do not as strongly desire a relationship focus in order to feel loved. The scores, while statistically different, were close, suggesting that women and men do differ, just not that much (by Cohen's standards this was a small effect). The same argument could be made for the findings for Hypothesis 3, also a small effect. Men desired more sex than did women in order to feel loved. Does this mean that women are uninterested in sex? Not hardly; again scores for women and men were statistically different, but still similar. The point here is not to pigeonhole women and men, but rather to look at how they approach relationships with the understanding that there are some differences, but that there are many similarities as well. In addition, the current research tells us nothing about the origin of any differences. Are they biological in nature or socially constructed? Or, and perhaps more likely, is it some combination of nature and nurture?

As predicted in Hypothesis 4, the data showed an inverse correlation between age and desire for sex as it relates to feeling loved. It is well documented (e.g., Brewis & Meyer, 2005;

Long, Burnett, & Thomas, 2006) that as people age they want less sex, whether it makes them feel loved or not. Related to Hypothesis 4 are the predictions made in Hypothesis 5. Relationship length was found to be inversely correlated with certain, but not all of the, factors on the DLBS-2. Relationship length and desire for sex were predictably inversely correlated. This effect is also likely to be related to changes from getting older. Relationship length and total DLBS-2 score were negatively correlated, albeit a small effect. No other factors were significantly correlated with relationship length suggesting that the drop in desire for sex likely drives the drop in total desire as it relates to love. This finding also suggests that the DLBS-2 factors *other* than sex remain important to feeling loved the relationship. It also likely means that partners must continue to provide loving behaviors for their partners throughout the span of the relationship that the relationship requires work to maintain feelings of love in each partner.

Hypothesis 6 introduced children as a factor in romantic relationships. As predicted, people without children desired more sex and more relationship support in order to feel loved. They did not, however, desire more scripting than people with children. Many possible reasons explain this difference. The most obvious seems to be time and focus. In general, couples with children have more distractions from the relationship. That is, simply caring for the children requires a lot of time (not counting any additional activities that the children may be involved in that take time away from focus on the romantic relationship). Couples without children are perhaps no less busy, but with no children in the home they may focus on each other more both sexually and in regards to improving the relationship. Another possible explanation is that couples with children may get some of their love needs met by caring for their children and consequently the romantic partner's actions are less important.

## **Ancillary Analyses**

In addition to the predicted gender differences on Sex and Relationship Support subscales, significant effects were found for the remaining DLBS-2 factors. Women desired more Personal Support, Scripting, and Respect than men in order to feel loved. The differences in Personal Support and Scripting were both small effects and whereas the difference in Respect was a medium sized effect. These findings suggest that women simply want more from their romantic relationships than men do. Again, it is important not to pigeonhole women and men into restrictive gender roles but rather to examine overall patterns that may play out in individual relationships. The current research can only demonstrate that there are differences. It cannot speak to the origins of these differences. One speculation is that the differences in loving desires on Personal Support, Scripting, and Respect are related to the social environment in which participants were raised and in which they live currently. Common communication styles in the U.S. suggest that women talk more and want to hear that they are loved (e.g., Tannen, 2007). Also, women historically have been disadvantaged with regard to receiving respect. Women could not vote until the 20<sup>th</sup> century. They still do not receive equal pay for equal work, and they often do not have access to the same resources as men. Even though these disparities are diminishing, research (Gervais & Vescio, in press) suggests that women continued to be disrespected in our society. The culminating effect of this disrespect in many aspects of their lives may lead women to desire more respect in their personal relationships. Men receive respect in many other arenas and so may desire less in order to feel loved. Or, possibly men may not value the respect they receive from their partners or that the respect they receive does not translate into feelings of love and consequently they have lower desires in this area. All of these ideas are simply conjecture that may seed future research.

As mentioned in the discussion of Phase 1, the items produced by participants represented simple things; none of the items represented desires for money or expensive gifts. An ANOVA of income differences on DLBS-2 factors produced results consistent with this lack of focus on money and expensive gifts. There were no differences in what people desired based on their reported incomes. The ANOVA suggest that love and money are unrelated.

A curious, but not surprising, effect was found in the experience of graduate students. ANOVAs revealed that graduate students desired more personal support than people in full-time positions and more respect than people reporting work status as other in order to feel loved. The experience of graduate school is often difficult and challenging; an experience that may elicit a greater need to rely on social support resulting in their higher scores on the Personal Support scale. A few possibilities exist to explain graduate students' higher scores on the "Respect" scale compared to those indicating "Other" for their work status. Again, graduate school is a challenging process that may lead to humble feelings, which, in turn, may cause graduate students to desire more respect in order to feel loved from their partners. Another possible explanation is that graduate students are more empowered and demand more respect from their partners. Research (e.g., Phelan, Link, Stueve, & Moore, 1995) suggests that there is a correlation between education level and endorsement of social liberal ideology. This tendency toward liberal thinking may lead graduate students to want more respect in their relationships than others, especially considering that many of the people in the Other category were full-time, stay-at-home mothers. These participants represent a more traditional understanding of gender roles in relationships, which may impact how much respect they demand from their romantic partners. The current project was not designed to answer these questions, but in conducting these ancillary analyses more future opportunities are possible. Another possible explanation is that

there is a sex effect confounding the results. Further exploration will likely explicate the answer to this question.

Hypothesis 6 predicted that people without children would desire more loving behaviors on the Sex and Relationship Support subscales. This hypothesis received support. Ancillary analyses provided further information regarding having children and feeling loved. People without children also had higher scores on the Personal Support and Total DLBS-2 scales. These findings suggest that having children strongly influences how people experience their romantic relationships. Seemingly, the focus for couples with children shifts from each other toward caring and providing for their offspring. In fact, the only DLBS-2 factors that couples with and without children did not differ on in their loving desires were Scripting and Respect. One possible explanation of these findings is that the factors of Respect and Scripting represent core aspects of the relationship. That is, that unrequited desires for these loving behaviors may lead to dissolution of the relationship. Desires for Sex, Relationship Support, and Personal Support in order to feel loved may be secondary to caring for children as long as there is still respect and some expression of love between partners.

### **Strengths, Limitations, and Future Directions**

The current project has a number of strengths. The DLBS-2 was created using a bottom-up approach. By having participants produce the items in Phase 1, the DLBS-2 represents real life experiences and desires in adults' relationships; some of which likely could not have been predicted by experts. Another strength is the large sample collected from the community. The participants represented a large cross-section of the population and were not simply a sample of convenience. Accordingly, their responses may be more representative of the population than research done on college students. Also, the sheer number of participants allows for detection of even small effects (this may also represent a weakness, as will be discussed later). The use of a

planned-missing data design allowed for a large number of participants to complete the survey without being overwhelmed by an enormous number of items. This methodology represents an additional strength of the current project.

In addition to its strengths, the current research has a few limitations. In some ways the sample was quite diverse, but in other ways it was rather homogenous. The sample had large variability in age and relationship length. One weakness of Phase 1 is that it only included 30 men. However those men represented a wide age range and their responses were largely redundant with those provided by women. In addition, cultural minorities and LGBT groups were not well-represented. Also, the sample itself was more affluent than the general population. Again, there was wide variability in participants' reported income, but people in the highest income bracket (annual income over \$100,000 in this case) were overrepresented. There did not appear to be any effects based on income, but income may remain as a factor to attend to. A related limitation is that the research was conducted entirely through on-line surveys. This method automatically introduces bias into the sample. Although many people have access to computers and the internet, collecting data on-line might still bias samples towards higher income level, higher levels of education, and greater technical sophistication than the population at large. Everyone in this sample is a member of the "haves" in the digital divide. Future research might include paper and pencil copies of the survey to be used in community settings where people do not have access to the internet. Additionally, the sample might be skewed somewhat in education. By having college students forward the survey to friends and family their might be a bias toward a more highly educated sample of the population. Unfortunately education level was not assessed in the current research so the extent of this bias is unknown.

Another potential limitation of the research might reside in and mirror one of its strengths. The large size of the sample in Phase 2 likely elevated the chance to find significant effects when testing hypotheses. For example, some of the gender differences might be magnified and statistically significant simply because there were so many participants. Effect sizes were reported and should be attended to in understanding the practical significance of statistically significant effects.

The inability to rule out cohort effects represents a further limitation of the current project, but also an opportunity for future research. The current research used a cross-sectional approach and therefore constitutes a snapshot of people across age groups. However, the cross-sectional design cannot control for cohort effects. In this case socialization around love and romantic relationships is one example of a potentially very influential cohort effect. Going forward, a longitudinal research design could be combined with a cohort research design to produce a sequential design, which would increase the ability to estimate the separate influences of age and cohort on DLBS-2 responses.

The current research presents many other opportunities for future research as well. An important next step in any scale creation is to verify its reliability and validity. A scale's validity depends on its reliability. Future research should assess the test-retest reliability of desires on the DLBS-2. Theoretically, the amount of received loving behaviors will change and so it does not make sense conceptually to evaluate the test-retest reliability of received loving behaviors. However, as demonstrated by research on the DLBS, desires for loving behavior stay fairly constant and should be mostly consistent over time. The factor structure of the DLBS-2 should also be further assessed using confirmatory factor analysis as a way of verifying the established structure. Confirmatory factor analysis will help to show how well the current factor structure

describes the experiences of participants. A confirmatory factor analysis would also help to see how well the established factor structure would generalize to other samples.

Following assessment of test-retest reliability and confirmatory factor analysis, further studies of the validity of the DLBS-2 should be examined. Research on the DLBS (Tiegs et al., 2008) found that the discrepancy between desired and received loving behaviors is a good predictor of relationship satisfaction. The same predictive relationship should be tested for the DLBS-2. Also, convergent and discriminant validity should be assessed by comparing the DLBS-2 to other relationship measures including possibly the DLBS.

Beyond verifying the validity of the scale, other future research involves using the DLBS-2 to examine relationship issues and patterns. It can also be used to examine gender emotion stereotypes in romantic relationships for adults. Such research might include additional comparisons of women and men on the DLBS-2 subscales. Gender stereotypes can be tested by having participants rate how they think men and women would respond to the items and then comparing that to the participants' own responses. The purpose of this line of research would be to assess the accuracy of gender differences in order to understand in what realms women and men may actually differ and where they are similar. Inaccurate beliefs regarding gender differences could then be challenged to help empower women and men alike in their lives and in their romantic relationships.

Other research could extend the utility of the DLBS-2 into counseling. Future studies might examine couples' reactions to completing the DLBS-2 and then sharing and comparing their answers with their partners. One intervention might be to have individuals rate how they think their partner would respond to the items and then compare those answers to their partner's actual responses. The idea being that taking the DLBS-2 in this context might raise people's

awareness of their partner's desires. Doing so might facilitate a discussion of what people want from the relationship and how they can go about getting what they want from their partners. Such discussions might lead to behavioral changes and ultimately could improve satisfaction in the relationship.

### **Use of the DLBS-2**

Once its reliability and validity have been demonstrated across several samples, the DLBS-2 could be used in multiple settings with an array of applications. The DLBS-2 may serve as a powerful research tool in understanding how adults experience love in their relationships. Using the DLBS-2 in research settings may help to elucidate gender roles and gender differences in how people experience and approach love in their relationships. The DLBS-2 could also be employed to help understand the impact that other influences (e.g., age, children, education) have on love. Research on the original DLBS demonstrated a strong relationship between relationship satisfaction and an individual's reported discrepancy between their *desired* loving behaviors and those that they *received* from their partners. If this discrepancy effect is replicated with the DLBS-2, it could then be used as a predictor of relationship satisfaction and relationship dissolution among non-collegians. Further, the DLBS-2 could potentially be used in therapeutic settings to help facilitate discussion of and increase understanding of how partners experience and how they want to experience love in their relationships.

### **Summary**

The current project created a new version of the Desired Loving Behavior Scale, the DLBS-2. The new version was created using a bottom-up approach utilizing items produced by participants. The DLBS-2 extends the research capabilities of the existing DLBS in that the DLBS-2 was produced and normed on a non-collegiate (i.e., non-undergraduate students), adult sample. One of the driving forces behind creating a new version is that adults beyond the age

range of those in college experience their relationships differently. College students are most likely still early in their relationship development and their own personal development, as well. Older participants have likely progressed beyond those early relationship stages and therefore may desire different behaviors from their partners in order to feel loved. They may also have other life factors impacting their relationship, such as children. The current project demonstrated both similarities to, and differences from the factors in the DLBS. This project produced two new factors, and dropped one of the original factors. These new factors closely relate to factors produced in earlier research and to ideas proposed in earlier conceptual work. Hypothesis testing revealed significant differences as a function of gender, age, relationship length, and parenthood on desires for loving behaviors. Such findings constitute valuable information about how women and men experience love in their relationships as well as how age and parenthood can alter romantic relationship desires. While limited, the current research helps to pave the way for future studies on gender, gender stereotypes, and relationship satisfaction. In addition to its potential utility in research, the DLBS-2 holds promise for use in therapeutic settings to facilitate discussion and increase relationship satisfaction in couples.

APPENDIX A  
PHASE 1 ITEMS

In the following space please reflect on a current, past, or future relationship and fill in what you want your romantic partner to **DO or SAY in order for you to feel loved**. Note there is a difference between what you want them to do in your relationship, and what you want them to do in order for you to feel loved. Remember, all answers are kept confidential.

For example: You may expect your partner to help with the kids. If this is an expectation you have unrelated to you feeling loved, do not list it. But if your partner helping with the kids helps you feel loved, then please list it.

Please list what you want a romantic partner to **DO or SAY in order for you to feel loved**. List as many as you can think of (the text box will expand).

Previous research has documented common areas that people list when asked about what they want from romantic partners in order to feel loved.

Please reflect again on what you want your partner to DO or SAY in order for you to feel loved with each of the listed specific areas in mind. If you listed an item in a previous section that you think would fit here, please do not list it again.

**Caring Actions** – some people desire caring actions from their partner in order to feel loved.

Examples of caring actions include:

Plan a candlelight dinner.

Put a note on my car.

Do my laundry every once in a while.

Please list what you want a romantic partner to DO or SAY related to caring actions that you desire in order to feel loved.

**Sex** – some people desire sex and sexual behavior from their partner in order to feel loved.

Examples of sex items may include:

Tell me what he/she likes and dislikes in bed.

Seduce me.

Be open to trying new sexual positions.

Please list what you want a romantic partner to DO or SAY related to sex that you desire in order to feel loved.

**Communication/Scripting** – some people desire to talk and to have their partner say certain things in order to feel loved.

Examples of scripting items may include:

Tell me that I make them happier than anyone else.

Say to me, “You mean so much to me.”

Say, “I love you with all my heart and soul.”

Please list what you want a romantic partner to DO or SAY related to communication/scripting that you desire in order to feel loved.

**Relationship Support** – some people desire actions that help to build a strong relationship.

Examples of relationship support items may include:

Make our relationship a mutual project.

Be a good listener to me.

Help me through tough times.

Please list what you want a romantic partner to DO or SAY related to relationship support that you desire in order to feel loved.

Please list any additional things that you have not listed already you want your partner to DO or SAY in order for you to feel loved that may not fit into these areas.

APPENDIX B  
DLBS-2 FACTORS AND ITEMS

Factor	Item
1	1. Make me a priority in their life.
1	2. Stand up for me to others.
1	3. Remember what I say.
1	4. Be honest with me.
1	5. Get along well with my friends and family.
1	6. Make our relationship a mutual project.*
1	7. Initiate activities to strengthen our relationship.
1	8. Create a feeling of security between us.*
1	9. Look me in the eyes lovingly.
1	10. Discuss and work together to solve problems.
1	11. Live up to their promises, be true to their word.
1	12. Be fair and balanced and keep me balanced.
1	13. Be happy to see me.
1	14. Laugh with me.
2	15. Say to me, "You mean so much to me."*
2	16. Say to me, "You make me happy."
2	17. Be romantic.
2	18. Tell me they love me more than they have loved anyone else.
2	19. Ask me if they can help me.
2	20. Tell me the reasons why they love me.
2	21. Say, "All of my friends/family love you".
2	22. Say to me, "I think that we make a great couple."*
3	23. Say to me, "You look beautiful/handsome".
3	24. Tell me that I am part of their family.
3	25. Tell me that I am the most important person in their life.
3	26. Say to me, "I trust you".
3	27. Say to me, "I enjoy spending time with you more than any other person."*
3	28. When talking to others say "we" instead of "I".
3	29. Tell me that I make them happier than anyone else.
3	30. Say to me, "You make me want to be a better person".
4	31. Care about my whole person, including my mind and my body.
4	32. Help me through stress and rough times.*
4	33. Show respect for my intelligence and my contributions to conversations.
4	34. Work on our relationship together.
4	35. Be sympathetic to my feelings.*
4	36. Listen to and care about my opinions.
4	37. Be aware of how their actions impact me.

*Note.* Factor 1 = Relationship Support, Factor 2 = Personal Support, Factor 3 = Scripting, Factor 4 = Respect, Factor 5 = Sex. \*indicates that this item was held over from the DLBS.

Factor	Item
5	38. Try new things and be spontaneous during sex.*
5	39. Say to me, "Let's make love."*
5	40. Buy sexy clothes/lingerie.
5	41. Use sex toys or lotions during sex.
5	42. Oral sex.*
5	43. Leave me a sexy voicemail/e-mail at work.
5	44. Seduce me, or allow me to seduce them.*
5	45. Strip for me.
5	46. Read sexy books or watch sexy movies together.

*Note.* Factor 1 = Relationship Support, Factor 2 = Personal Support, Factor 3 = Scripting, Factor 4 = Respect, Factor 5 = Sex. \*indicates that this item was held over from the DLBS.

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## BIOGRAPHICAL SKETCH

Tom Tiegs was born and raised in Minnesota, but he got to Florida as quickly as he could. He received his undergraduate degree in psychology from the University of St. Thomas in St. Paul, Minnesota. He received his Master's degree in psychology from the University of Florida and is completing this dissertation to receive his Ph.D. from that same hallowed institution. He married Sarah Gervais and has since moved around the country with her in order to complete their degrees together and to find actual jobs. They are now moving to Nebraska, but they hope to one day return to the Sunshine State and Gatorville.