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# Measuring passionate love in intimate relationships

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Theorists such as Farber argue that in adolescence passionate love first appears in all its intensity. Both adolescence and passion are "intense, overwhelming, passionate, consuming, exciting, and confusing". As yet, however, clinicians have been given little guidance as to how to deal with adolescents caught up in their passionate feelings. Nor has there been much research into the nature of passionate love. In Section 1 of this paper, we define passionate love, explain the necessity of developing a scale to measure this concept, and review evidence as to the nature of passionate love. In Section 2, we report a series of studies conducted in developing the Passionate Love Scale (the PLS). We present evidence as to the PLS's reliability, validity, and relationship to other factors involved in close relationships. We end by describing how we have used this scale in family therapy to open conversations about the nature of passionate love/companionate love/and intimacy . . . and discussing profitable directions for subsequent research.

## INTRODUCTION

Recently, social psychologists have become interested in passionate love. (Other theorists have labeled this phenomenon puppy love, a crush, infatuation, lovesickness, or obsessive love.) Passionate love is defined by Hatfield and Walster (1978) as:

> A state of intense longing for union with another. Reciprocated love (union with the other) is associated with fulfillment and ecstasy. Unrequited love (separation) with emptiness; with anxiety or despair. A state of intense physiological arousal. (p. 9)

Perhaps at no other time is passionate love experienced more intensely than during adolescence. (Theorists such as English and English, 1958; define that as the period beginning at 12 to 13 years, with puberty, and ending around 21 to 22 years.)

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For example, Farber (1980) has observed that romantic love is essentially an adolescent phenomenon:

> Adolescence is also that period when we generally fall in love with a willing partner for the first time. Kephart (1967), for example, found that "infatuation" generally occured for the first time at age thirteen and "love" at age seventeen . . . Finally, romantic love and adolescence share a common descriptive vocabulary within our language. Both concepts are frequently described as intense, overwhelming, passionate, consuming, exciting, and confusing. (pp. 44–45)

Farber points out that adolescents rarely know very much about the powerful feelings that they are experiencing and know little about the differences between passionate love and the more realistic feelings of companionate love/intimacy that will occur later.

Although passionate love seems to be a common experience in adolescence, it has not been systematically examined, primarily because, up until this point, no scale has been developed to measure passion. In 1977, however, a team of researchers set out to develop the Passionate Love Scale (the PLS). This paper will describe the development of that scale.

In the years that psychometricians have spent developing the PLS, other researchers have forged ahead, assessing passion as best as they could, yet learning a great deal about the nature of passion. Let us review some of their findings. (It is important, of course, that the PLS reflect what is known about the nature of love.)

## THE NATURE OF PASSIONATE LOVE

Primatologists such as Rosenblum (Rosenblum and Plimpton, 1981; Rosenblum, 1985) argue that even non-human primates seem to experience something very much like passionate love. In infancy, primates cling to their mothers. As long as mother and child are in close proximity, all goes well. If a brief separation occurs, however, the young primate becomes desperate. He howls and rushes frantically about, searching for her. When the mother returns, the young primate is joyous; he clasps her, then bounds about in excitement. If she does not return, and his frantic efforts to find her fail, eventually the infant will abandon all hope of contact, despair and probably die. The experience Rosenblum describes certainly sounds much like the passionate lover's "desire for union", and its accompanying lows and highs. This, we think, is the groundwork for passionate attachments.

Most researchers have come to a different conclusion. They assume that passionate love first appears at puberty. For example, Offit (1977) argues "we do not fall in love until we suspect we are ready to leave our parents".

Neuroanatomists and neurophysiologists assume that passionate love is fueled by adolescent hormonal changes and thus necessarily appears after puberty (See Gadpaille, 1975; Kaplan, 1979; Money, 1980; Liebowitz, 1983). Farber (1980), in his review of research on the subject, discounts early love attachments as mere "crushes" and places the onset of romantic passion during early adolescence.

Regardless of *when* passionate love first begins, theorists are in some agreement as to how it operates. Scientists who explore emotion have long been aware that both mind and body interact in shaping emotional experience. **Mind:** People's semiconscious assumptions about what they *should* be feeling have a profound impact on what they *do* feel. For example, people learn from society, parents, friends, and their own personal experiences, who is appealing, what passion feels like, and how lovers behave. Such cognitive factors influence how men and women label their feelings. **Body:** People can experience an emotion only if they have some feelings (i.e. they must be aroused physiologically). Both mind and body make indispensible contributions to emotion. Cognitive factors determine how people perceive, interpret, and encode emotional experiences. Physiological factors determine whether or not they will feel any emotion at all (see Hatfield and Walster, 1978).

Recent social psychological research makes it clear that passionate love is intimately linked to a variety of strong emotions, both positive and negative (See Hatfield and Rapson, 1985).

### *Cognitive factors*

According to the folklore, passionate lovers are plunged from ecstasy to agony. Tennov (1979) interviewed more than 500 passionate lovers. Almost all took it for granted that passionate love (which she labels "limerence") is a bitter-sweet experience.

Liebowitz (1983) provides an almost lyrical description of the mixed nature of passionate love:

> Love is, by definition, the strongest positive feeling we can have . . . Other things—stimulant drugs, passionate causes, manic states—can induce powerful changes in our brains, but none so reliably, so enduringly, or so delightfully as that "right" other person . . . If the relationship is not established or is uncertain, anxiety or other displeasure centers may be quite active as well, producing a situation of great emotional turmoil as the lover swings between hope and torment. (pp. 48–49)

It is clear, then, that people assume it is "appropriate" to use the term passionate love to label any "intense longing for union with another",

regardless of whether that longing is reciprocated (and thus a source of fulfillment and ecstacy), or it is uncertain or unrequited (and thus is a source of emptiness, anxiety, or despair.)

### *The chemistry of love*

Neuroanatomists and neurophysiologists are beginning to learn more about the chemistry of passionate love and a pot-pourri of related emotions. They are also learning more about the way that various emotions, positive and negative, interact. Liebowitz (1983) has been the most willing to speculate about the chemistry of passionate love. He argues that love brings on a giddy feeling, comparable to an amphetamine high. It is phenylethylamine (PEA), an amphetamine-related compound, that produces the mood-lifting and energizing effects of romantic love. He observes that love addicts and drug addicts have a great deal in common. The craving for romance is the craving for a particular kind of high. The crash that follows a breakup is much like amphetamine withdrawal. Liebowitz speculates that there may be a chemical counteractant to lovesickness: MAO (monoamine oxidase) inhibitors may inhibit the breakdown of PEA, thereby "stabilizing" the lovesick.

Liebowitz also offers some speculations about the chemistry of the emotions which criss-cross lovers' consciousness as they plunge from the highs to the lows of love. The highs include euphoria, excitement, relaxation, spiritual feelings, and relief. The lows include anxiety, terrifying panic attacks, the pain of separation, and the fear of punishment. Research has not yet established whether or not Liebowitz's speculations are correct.

Kaplan (1979) provides supplementary information as to the neuroanatomy and neurochemistry of passionate love/sexual desire.

Although passionate love's "highs" and "lows" may be produced by specific chemical neurotransmitters (or by chemicals which increase/decrease the receptors' sensitivity), most intense emotions have a great deal in common: they are intensely arousing. They all produce a sympathetic response in the nervous system. This is evidenced by the symptoms associated with all these emotions—a flushed face, sweaty palms, weak knees, butterflies in the stomach, dizziness, a pounding heart, trembling hands, and accelerated breathing. (The exact pattern of reaction varies from person to person, see Lacey (1967).)

Recent neuroanatomical/neurophysiological research suggests that the various emotions probably have tighter links than psychologists once thought. Recently, researchers have begun to examine the exact nature of these interlinkages (see, for example, Zillman, 1984). This research is consistent with the recognition that in a passionately exciting encounter, people can move from elation, through terror, to the depths of despair . . .

and back again . . . in a matter of seconds. Such observations led Hatfield and Walster (1978) to conclude that passion can be ignited by pleasure and/or pain; by delight in the other's presence or pain at the other's absence.

*Behavioral evidence that both pleasure and pain may fuel passionate love*

Passionate love is a risky business. Success sparks delight, failure invites despair. We get some indication of the strength of our passion by the intensity of our delight/despair. There is an abundance of evidence to support the contention that, under the right conditions, a variety of intensely positive experiences, intensely negative ones, or neutral but energizing experiences, can intensify the passion of passion.

*Passion and the positive emotions*

The definition of passionate love states: "Reciprocated love (union with the other) is associated with fulfillment and ecstacy". No one doubts that love is a delightful experience in its own right. The joy of love generally spills over and adds sparkle to everything else in life.

Psychologists have also been interested in the converse of this proposition: i.e., Can the highs in a person's life spill over and make passion more passionate? A number of carefully crafted studies make it clear that passion can be intensified by a variety of intertwined positive experiences—listening to a comedy routine (White, Fishbein and Rutstein, 1981), sexual fantasizing (Stephan, Berscheid and Hatfield, 1971), erotic excitement (Istvan and Griffitt, 1978), or general excitement (Zuckerman, 1979).

*Passion and the negative emotions*

The definition of passionate love also observes: "Unrequited love (separation) is associated with emptiness, anxiety or despair". (p. 2). Psychologists have long observed that the loss of love is a devistating experience. Theorists such as Bowlby (1973), Peplau and Perlman (1982), or Weiss (1973) describe the panic, despair, and eventual detachment that both children and adults feel at the loss of someone they love.

By now, psychologists have also amassed considerable evidence that people are especially vulnerable to love when their lives are turbulent. Passion can be intensified by the spill over of feeling from other realms. A variety of awkward and painful experiences—anxiety and fear (Aron, 1970; Dutton and Aron, 1974; Hoon, Wincze and Hoon, 1977; Brehm, Gatz, Goethals, McCrimmon and Ward, 1978; Dienstbier, 1979; Riordon and Tedeschi, 1983), embarrassment (Byrne, Przybyla and Infantino, 1981), the discomfort of seeing other involved in conflict (Dutton, 1979), jealously (Clanton and Smith, 1977), loneliness (Peplau and Perlman, 1982), anger (Barclay, 1969), anger at parental attempts to break up an affair (Driscoll,

Davis and Lipetz, 1972), grisley stories of a mob mutilating and killing a missionary while his family watched (White *et al.*, 1981), or even grief—all these have been found by researchers to deepen passion.

*Passion and emotionally neutral arousal*

In fact, recent laboratory research indicates that passion can also be stirred by "excitation transfer" from such emotionally neutral, but arousing, experiences as riding an exercise bicycle (Cantor, Zillman and Bryant, 1975) or jogging (White *et al.*, 1981).

The evidence suggests that adrenalin makes the heart grow fonder. Delight is one stimulant of passionate love, yet anxiety and fear, or simply high arousal, can often play a part. Perhaps one reason adolescents are so likely to experience passionate love is because the teenage years are turbulent; they experience intense highs and deep lows.

In the next section of this paper, we will describe a series of studies, conducted to develop a reliable and valid scale to measure passionate love. This scale attempts to take into account all that is thus far known about the phenomenon of passionate love.

## 1. DEVELOPMENT OF THE PASSIONATE LOVE SCALE (PLS)

The first goal was to select a group of items that adequately represent *passionate love*; that is, to develop a scale that is content-valid (Nunally, 1978). This goal was accomplished in three steps. First, the components (or dimensions) of passionate love were identified. Second, items were written to reflect these components. Third, items analysis was conducted to select the best items for a final scale.

*Identifying the components of passionate love*

Three sources were examined to identify the components of passionate love. First, the works of authors who have speculated on passionate love, or similar types of love, were examined. For example, Tennov (1979) interviewed approximately 500 men and women about their passionate love experiences (she called this type of love "limerence") and identified several components of such love, including preoccupation with the loved one, desire for exclusivity, and fear of rejection. Second, a variety of scales designed to measure love or other varieties of interpersonal attraction were examined. Although none of these scales focus exclusively on passionate love, they include certain components of passionate love. These scales included Rubin's (1970) "Love" and "Liking" scales, Lee's (1977) "Styles of loving", and Swensen's (1972) "Scale of feelings and behaviors of love". Finally, additional information as to what specific dimensions constitute passionate

love was obtained from conducting interviews with children (Hatfield, Easton, Synodinos and Schmitz, 1985), adolescents (Traupmann, Hatfield and Wexler, 1983), newlyweds (Hatfield, Traupman, Sprecher, Utne and Hay, 1984), and elderly couples (Traupmann and Hatfield, 1981) about their passionate love experiences.

The above sources suggested that passionate love could be best identified as an intense *longing for union with another*. This longing can be manifested in cognitions, emotions, and behaviors. The specific components that were identified as important to include in the PLS are the following:

*Cognitive components*

(1) Intrusive thinking or preoccupation with the partner: Adolescent lovers often spend much of their time thinking about the other. Their thoughts are often persistent and intrusive. (In Figure 1, items *5, *9, and 21 tap this component.)

(2) Idealization of the other or of the relationship: Adolescent lovers tend to attribute such favorable attributes as beauty, kindness, and intelligence to one another. They idealize the relationship, and believe that their match is a perfect one. (Items *7, 9, and *15 measure this component.)

(3) Desire to know the other and be known: Passionate lovers long to know and to be known by their partners. (Item *10 measures the desire to know. Item *22 measures the desire to be known.)

*Emotional components*

(1) Attraction to other, especially sexual attraction. Positive feelings when things go well. (See Items, 16, 18, and *29.)

(2) Negative feelings when things go awry. (See Items 1, *2, *8, 20, 28, and *30.)

(3) Longing for reciprocity: Passionate lovers not only love, but they want to be loved in return. (Item *14.)

(4) Desire for complete union: Adolescent lovers desire to become as close as possible to the other. They want their affair to be permanent. (Items *11, 12, 23, and 27.)

(5) Physiological arousal: Passionate love is a state of intense physiological arousal. (Items 3, 13, *17, and 26.)

*Behavioral components*

A passionate lover's desire for union may be reflected in a variety of behaviors.*

(1) Actions toward determining the other's feelings: Passionate lovers try to determine how the other feels about them. (Item *24.)

(2) Studying the other person. (Item 4.)

(3) Service to the other: Adolescent lovers try to demonstrate their love for their partners by serving and helping them. (Items *6 and 25.)

(4) Maintaining physical closeness: We had hoped to include some items designed to measure adolescents' efforts to get *physically* close to the other, but lovers did not endorse such items, and they were dropped from the final version of the scale.

Once the components of passionate love were identified, the next step was to write items to represent these components.

### *Generating a pool of items*

The goal of this stage of scale construction was to devise a set of items that would adequately represent the components identifed as part of passionate love. A team consisting of these authors and undergraduate honors students constructed a number of items designed to assess the cognitive, emotional, and behavioral components of passionate love. In total, 165 items were written.

At this stage of scale construction, several decisions were made about the format of the PLS.

#### *Direction of items*

Although psychometricians generally recommend that items be keyed in both directions in order to control for such response biases as acquiescence responding (the tendency to agree with a statement regardless of its content) (Cronbach, 1946), all of the items of the PLS are keyed in the positive direction. This was done because reversed items seemed less meaningful and more difficult to understand, and because recent evidence indicates that the acquiescence tendency is not a major problem in the measurement of sentiments (Nunnally, 1978). [Other love scales, such as Rubin's (1970), also contain only items worded in the positive direction.]

#### *Type of response scale*

Careful consideration was given to how many "scale steps" should be provided in the response scale for the items. According to psychometric theory, the reliability and discriminability of a scale increase with more steps, although this increase tends to level off after about seven to nine steps (Nunnally, 1978). After a series of pretests, a nine-point response scale was

* Initially, we theorized that each of the cognitive and emotional items would have a behavioral manifestation, and thus we planned to include 15 behavioral items in the PLS. In pretesting, however, we found that passionate love appeared to be a phenomenon more of the mind and the heart than of actual behavior. Thus, you will note, almost no behavioral items survived our rigorous screening.

**Figure 1.** Passionate Love Scale.

In this section of the questionnaire you will be asked to describe how you feel when you are passionately in love. Some common terms for this feeling are passionate love, infatuation, love sickness, or obsessive love.

Please think of the person whom you love most passionately *right now*. If you are not in love right now, please think of the last person you loved passionately. If you have never been in love, think of the person whom you came closest for caring for in that way. Keep this person in mind as you complete this section of the questionnaire. (The person you choose should be of the opposite sex if you are heterosexual or of the same sex if you are homosexual.) Try to tell us how you felt at the time when your feelings were the most intense.

All of your answers will be strictly confidential.

1. Since I've been involved with _____, my emotions have been on a roller coaster.
* 2. I would feel deep despair if _____ left me.
3. Sometimes my body trembles with excitement at the sight of _____ .
4. I take delight in studying the movements and angles of _____'s body.
* 5. Sometimes I feel I can't control my thoughts; they are obsessively on _____ .
* 6. I feel happy when I am doing something to make _____ happy.
* 7. I would rather be with _____ than anyone else.
* 8. I'd get jealous if I thought _____ were falling in love with someone else.
9. No one else could love _____ like I do.
*10. I yearn to know all about _____ .
*11. I want _____ —physically, emotionally, mentally.
12. I will love _____ forever.
13. I melt when looking deeply into _____'s eyes.
*14. I have an endless appetite for affection from _____ .
*15. For me, _____ is the perfect romantic partner.
16. _____ is the person who can make me feel the happiest.
*17. I sense my body responding when _____ touches me.
18. I feel tender toward _____ .
*19. _____ always seems to be on my mind.
20. If I were separated from _____ for a long time, I would feel intensely lonely.
21. I sometimes find it difficult to concentrate on work because thoughts of _____ occupy my mind.
*22. I want _____ to know me—my thoughts, my fears, and my hopes.
23. Knowing that _____ cares about me makes me feel complete.
*24. I eagerly look for signs indicating _____'s desire for me.
25. If _____ were going through a difficult time, I would put away my own concerns to help him/her out.
26. _____ can make me feel effervescent and bubbly.
27. In the presence of _____, I yearn to touch and be touched.
28. An existence without _____ would be dark and dismal.
*29. I possess a powerful attraction for _____ .
*30. I get extremely depressed when things don't go right in my relationship with _____ .

Possible responses to each item ranged from:

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|
| Not at all true | | | | moderately true | | | Definitely true | |

* *Note:* The * indicates items selected for the short version of the Passionate Love Scale.

chosen (see Figure 1). Again, this is identical to the choice made by Rubin (1970), possibly for the same reasons.

*Number of scale items*

It was also necessary to decide how many items to include in the final scale. Enough items were needed to adequately represent the different dimensions of passionate love and achieve reasonable reliability, but not so many items that validity would suffer because respondents became bored completing too many items. We decided on two scales, a 30-item scale and a shorter 15-item version. The shorter version will be adequate in most investigations of passionate love. The longer version will be more appropriate if the investigator intends to focus on the cognitive, emotional or behavioral components of the PLS. (See Figure 1 for both versions.)

## *C. Item analysis*

The next step was to conduct item analyses on the initial set of items in order to choose the best set of items for the PLS. Two studies were conducted to secure appropriate data.

*Study 1*

One hundred and thirty-six late adolescent boys and girls at the University of Wisconsin completed a questionnaire that contained items from the large pool of items that had been written. The 165 items were randomly divided into five versions so that the students were not faced with the impossible task of responding to all 165 items. The questionnaire was completed during classtime.

Adolescents were asked to think of the person whom they loved most passionately. This was a current dating partner for 78 per cent of the sample. The rest of the sample, who were not currently in love, were directed to think of their last relationship. Adolescents were directed to think of their love feelings *at their peak* when they responded to the items. The questionnaire also contained other measures—a global measure of passionate love, a global measure of companionate love (these had been used in earlier studies; see Traupmann and Hatfield, 1981), and Rubin's (1970) "Liking" and "Loving" scales.

Several criteria were used in deciding which items to retain for additional pretesting and possible inclusion in the final version of the PLS:

(1) Mean of the item: Because respondents were asked to think of their love at its peak, only items with a relatively high mean (above 5 on the 9-point scale) were considered to be good indicators of passionate love.

(2) Internal consistency: Within each subset of items, items that correlated highly (0·50 or above) with the sum of the items were considered to be good indicators of passionate love.

(3) External associations: How each item correlated with several related measures were also considered. (See Piazza, 1980, for a discussion of the importance of this procedure.) Items that measure only passionate love, and not components of other types of love and affection as well, were most desired. Thus, if an item was not correlated to a significantly greater degree with the global measure of passionate love than with the global measure of companionate love, it was not retained. An item that was not correlated to a greater degree with Rubin's love scale than with his liking scale was also likely to be deleted.

All of the above criteria were considered in deciding which of the original items to retain for further consideration. Seventy-six items, representing all categories of passionate love enumerated earlier, were retained for pilot Study 2.

*Study 2*

The 76 items chosen in the first pilot study were included in a second survey study. Study 2 was designed to continue the item-analysis necessary to select final items for the PLS. One-hundred and sixty-four adolescent volunteers (53 men and 111 women) from sociology courses at the University of Wisconsin, completed the questionnaire.

To insure that the PLS would be a "pure" measure of passionate love (other scales, such as Rubin's "Love" scale already exist to measure love in general), Study 2 was designed to examine to what extent the items discriminated between feelings for a passionate vs. a companionate lover. Students were randomly assigned to complete the PLS questionnaire for either someone they passionately loved or someone they companionately loved. (Definitions of passionate and companionate love were provided in each version.) Adolescents were directed to think of their love feelings (either passionate or companionate) at their peak when they responded to the items.

Several analyses were conducted to determine which items should be retained for the PLS. First, an item was more likely to be included in the final version of the PLS if the mean of the item was significantly higher for those completing the scale for a passionate lover than those completing it for a companionate lover. Second, all of the criteria applied to the items in Study 1 were also applied to the 60 per cent of the sample who completed it for a passionate lover. That is, the means of the items, the item-to-total correlations, and the correlations between the item and other affection measures were examined.

At this stage, 30 items were selected for the PLS. These 30 items constitute the long version of the PLS. (These items can be found in Figure 1.) Fifteen of these items, representing each of the components of passionate love, were randomly selected for a short version of the PLS. (In Figure 1, these 15 items are indicated with an asterisk.)

## II. ESTABLISHING THE RELIABILITY AND VALIDITY OF THE SCALE AND ASSESSING ITS RELATIONSHIP TO OTHER FACTORS INVOLVED IN CLOSE HETEROSEXUAL RELATIONSHIPS

In Section 1, we described the development of the PLS. In Section 2, we turn to establishing the reliability and validity of the PLS and examining its correlates.

With a sample of late adolescents involved in dating or more serious relationships, we examined all of the following: Whether the scale is (1) unidimensional, (2) reliable, as indicated by a measure of internal consistency, (3) uncontaminated by a social desirability bias, (4) correlated with other indicants of love and intimacy. In addition, we will examine (5) whether gender and stage/length of a relationship influence PLS scores. The first three steps are routinely conducted with newly development scales and need not be discussed further. The last two points will be discussed briefly.

### *Correlates of passionate love*

If the PLS is a valid measure, it should be positively associated (but not identical with) other measures of love and intimacy. Thus, the correlation between passionate love and other related constructs will be examined in this study. These constructs include: trust, commitment, overall satisfaction with the relationship, satisfaction with the sexual aspect of the relationship, and various measures of desire to be physically close to the partner. Furthermore, the relationship between the PLS and Rubin's "Love" scale will be examined. These two scales include a few of the same components. Thus, they should be somewhat, but of course not perfectly, correlated.

### *The impact of gender and stage/length of relationship on passionate love*

One of the purposes of developing the PLS is to use it in research to determine the antecedents, correlates, and consequences of passionate love. In this paper, we get a start on that endeavor. We will examine how the background characteristic of gender and length of relationship (as measured by stage and duration of the relationship) may shape passionate feelings.

#### *How gender affects passionate love*

According to folklore, women are more concerned with love than are men. Aristotle (1962) argued that, by nature, men are superior in every aspect to

women: "Because the wife is inferior to her husband, she ought to love him more than he her; algebraically, this would compensate for their inequality and result in a well-balanced relationship". Interestingly enough, modern feminists have tended to agree with Aristotle. Firestone (1971) observes, "Men can't love . . . That women live for love and men for work is a truism". Dinnerstein (1977) agrees:

> It has often been pointed out that women depend lopsidedly on love for emotional fulfillment because they are barred from absorbing activity in the public domain. This is true. But it is also true that men can depend lopsidedly on participation in the public domain because they are stymied by love. (p. 70)

Research indicates, however, that whether women or men are found to love more depends on the type of love measured and the stage or length of the relationship (see reviews by Hatfield, 1982; Hatfield and Rapson, 1985; or Peplau, 1983). It appears that almost everyone is capable fo loving passionately. Passionate lovers are generally in love with a daydream. It is easy to love someone who you believe is all perfect, who could fulfill all your desires, if only he/she would. The evidence suggests that men and women, of all ages (Traupmann and Hatfield, 1981; Hatfield *et al.*, 1984), of varying ethnic groups (Easton, 1985), of varying intellectual capacities, mentally ill or healthy, are capable of passionate love. In response to the direct question "How much do you passionately love your partner?", no gender differences were found among dating or married couples (see Easton, 1985 or Traupman and Hatfield, 1981). Rubin (1970) secured no gender differences on his "Love" scale. There is only one bit of evidence that there might be gender differences in passion. Women are somewhat more likely to report such *symptoms* of passionate love as "felt like I was floating on a cloud" and "felt like I wanted to run, jump, and scream" (Dion and Dion, 1975; Kanin, Davidson and Scheck, 1970). In this study, we will examine whether ther are gender differences in passionate love, as measured by the PLS, a more reliable and valid scale than has existed heretofore.

Are there gender differences in passionate love at various stages of a relationship and at various times in a relationship? We do not know. Some authors have found that men are quicker to fall in love (Coombs and Kendell, 1966; Kanin *et al.*, 1970), but that gender differences disappear as couples become more committed to one another (Rubin, Peplan and Hill, 1981). Yet, in their interviews with dating and newlywed couples, Traupman and Hatfield (1981) found no Gender × Stage/Length of Relationship effect on passionate love. They did find that elderly women assumed their husbands loved them more passionately than they loved their husbands. It is time for more systematic research to investigate whether Gender and Stage/Length of

relationship interact in influencing passionate love. We will explore that question in this Study.*

*How passionate love is affected by stage and length of relationship*

According to the folklore, passionate love lasts for only a short time. If a couple is lucky, passionate love evolves into companionate love. Companionate love is believed to be a more stable kind of love. It can last a lifetime. For example, Safilios-Rothschild (1977) writes:

> Sometimes romantic passion slowly diminishes in strength and becomes transformed into a stable and tender "affectionate love" that is able to withstand the responsibility, problems, and routine, and even boredom that come with a lasting relationship. (p. 10)

This idea of a linear passage from passion to companionship has been incorporated into stage theories of relationship development. Goldstine, Larner, Zuckerman and Goldstine (1977), for example, identified three stages through which relationships pass. Stage 1 is characterized by such symptoms of passionte love as excitement and vulnerability. In Stage 2, there is a period of disillusionment during which passionate love seems to wane. In Stage 3, companionate love becomes more prominent. Expectations for each other are realistic, and there is a sense of security in the relationship. Coleman (1977) identified five stages in relationship development: (1) recognition, (2) engagement, (3) harmony, (4) discordance, and (5) resolution. In the second and third stages, idealization, physical attraction, and other characteristics of passionate love are most intense. In the fifth stage, companionate love begins to develop. Both longitudinal and cross-sectional studies exist to suggest that feelings of love might change over the course of a relationship as folklore and stage theories expect (see Pam, 1970; Driscoll *et al.*, 1972; Cimbalo, Failing and Mousaw, 1976).

Some empricial research, however, suggests that passionate love may not necessarily die as companionate love emerges. (See, for example,

* Gender differences in companionate love. There is considerable evidence that women do love their partners more *companionately* than they are loved in return. (See Hatfield and Rapson, 1985, for a summary of this research.) Traupmann and Hatfield (1981) asked dating, newlywed, and older people how companionately they loved their partners and how much they thought they were loved in return. They found that from the dating period until very late in life, women seemed to love their partners more than they were loved in return. It is only in the final years of life that men and women came to love one another with equal intensity.

Rubin *et al.* (1981) secured similar results in their research with dating couples. He found that women liked their boyfriends more than they were liked in return.

Consistent with the conclusion that women like and love their partners more than they are liked and loved in return is the finding that women are willing to work harder to keep a love affair going than are men (Hatfield *et al.*, 1984).

Traupmann and Hatfield, 1981.) These studies, in contrast to the studies cited above, include couples married over 20 years. Knox (1970) interviewed three groups of couples: dating high-school seniors; couples married less than five years; and couples married more than 20 years. He found that both the youngest and the oldest groups had the most romantic conceptions of love. Munro and Adams (1978) also found dating couples and couples married a long time were more romantic than were young married couples. These authors presented an ingenious explanation for this curvilinear relationship. They suggest that romanticism is highest when there is low structure in a relationship. Role structure is especially low in the early dating period and then late in the marriage when children have left home. Role structure is highest early in marriage when a houshold is being established and children are arriving. Finally, Reedy, Birren and Schaie (1981) and Swensen, Eskew and Kohlehepp (1981) observe that different aspects of love are important at different stages in the life cycle. (Other theorists who provide models for the way relationships change over time are Kerchoff and Davis, 1962; Murstein, 1970; Levinger, 1974.)

In this study, we examined whether there were Stage/Length differences in passionate love, as measured by the PLS, a more reliable and valid scale than has existed heretofore. It was expected that in our sample of dating couples, passionate love would increase in early sages of the relationship and then level off or even decrease.

## *Method*

### *The sample*

The sample consisted of students recruited from sociology classes at the University of Wisconsin. Announcements were made to various classes that men and women who were in dating or more serious relationships were needed to participate in a survey study on relationships. They were told that their participation was voluntary and they would be paid $3.50 for completing a questionnaire on their relationship. In total, 60 men and 60 women participated in the study.

The mean age of the respondents was 20·11 years (S.D. = 1·58). They were distributed among the undergraduate years: 22·5 per cent freshmen, 22·5 per cent sophomores, 18·3 per cent juniors, and 33·3 per cent seniors. Four respondents were not currently enrolled in school. Of the 120 respondents, 119 were Caucasian and one was Hispanic. In religious background, 44 per cent were Catholic, 29 per cent were Protestant and the other respondents were about equally distributed in the three categories of Jewish, other religion, and no religion. Most of the respondents (86·6 per cent) came from upper-middle or middle-class families. Of the respondents, 7·5 per cent were dating occasionally, 15·8 per cent were dating regularly, 56·7 per cent were

dating exclusively, 10·8 per cent were living together, 5·8 per cent were engaged but not living together, 2·5 per cent were engaged and living together and 0·8 per cent (one subject) did not identify the current status of the relationship. The average length of time the respondents had been dating their partner was 21 months.

*Procedure*

All participants completed the questionnaire, which was self-administered, in small private rooms. The investigator was always in the next room, available to answer any questions. The questionnaire took approximately 30–45 minutes to complete. Upon completion of the questionnaire, each respondent was paid, told more about the purpose of the study, and thanked for his/her participation.

*Measures*

In addition to asking for background information, the questionnaire consisted of several scales designed to measure present feelings for the partner. The variables were measured in the following way:

*The Passionate Love Scale.* The 30-item PLS was included in the questionnaire. Evidence of its reliability and validity will be presented in the Results section.

*Rubin's "Liking" and "Love" Scales.* Rubin's (1970) "Liking" and "Love" scales were included to measure other varieties of attraction. The "Love" scale seems to measure aspects of both passionate and companionate love. It includes a few components of passionate love (absorption and need) as well as many components of companionate love (such as responsibility, trust, and forgiveness). The "Liking" scale measures such components as respect, perceived similarity, likability, and favorability of evaluation. The items in Rubin's scales, in the PLS, as well as in the other scales described next, were each followed by a nine-point response scale. There is considerable evidence that Rubin's (1970) "Liking" and "Love" scales are valid and reliable measures (see, for example Dermer and Pyszcynski, 1978; Dion and Dion, 1976; Peplau, Rubin and Hill, 1977; Rubin, 1970, 1974). In this study, coefficient alpha was 0·85 for the "Liking" scale and 0·89 for the "Love" scale.

*Trust.* A scale recently developed by Larzelere and Huston (1980) to measure trust in close relationships was included in the questionnaire. The scale consists of eight items, including such statements as "There are times when my partner cannot be trusted" and "My partner is truly sincere in his/her promises". Larzelere and Huston present evidence of reliability and validity for the scale. The coefficient alpha was 0·83 in this study.

*Commitment to the partner.* Items to measure commitment were developed based on Rusbult's (1980) work on this phenomenon. The respondents were asked five questions: (a) "How likely is it that you will end your relationship with your partner in the near future?" (b) "How often have you seriously considered ending your relationship with your partner?" (c) "How much would you desire to get married to your partner someday?" (d) "To what extent are you committed to your relationship with your partner?" and (e) "How attached are you to your partner?" These responses to these five itmes were summed to form an index of commitment. The index had a coefficient alpha of 0·82.

*Satisfaction.* The respondents were asked to indicate their overall satisfaction with the relationship, as well as their satisfaction with the sexual part of the relationship. The specific questions were: "All things considered, how satisfying is your relationship with your partner?" and "To what extent are you satisfied with the sexual part of your relationship with your partner (regardless of the level of intimacy of the relationship)?"

*Desire for physical interaction.* Several questions were asked concerning how much the respondent desired to physically interact with the partner: (a) "How much do you desire to go out with _____ tonight!" (b) "How much do you desire to be with _____ right now?" (c) "How much do you desire to talk with _____ right now?" (d) "How much do you desire to be held by _____ right now?" (e) "How much do you desire to kiss _____ right now?" (f) "How sexually excited are you about _____ right now?" and (g) "How much do you desire to engage in sex with _____ right now!" The _____ in each statemement referred to the respondent's partner. Each question was followed by a response scale ranging from 1 = not at all, to 9 = a great deal.

*Social desirability.* To examine whether the PLS is uncontaminated by social desirability, a form of the Crowne and Marlowe (1964) Social Desirability scale was included. Of the 33 items included in the original scale, 16 items were randomly selected and used in this questionnaire. The respondent was asked to indicate whether each statement was true or false for him/her. This scale had a coefficient alpha of 0·56.

## RESULTS AND DISCUSSION

### *Evidence of the scale's reliability, unidimensionality, and freedom from social desirability bias*

The results indicate that the PLS is a highly reliable scale. Coefficient alpha, a measure of internal consistency, is 0·94. This is a very high coefficient, and, in fact, higher than the coefficients found for the other established scales (e.g., Rubin's "Liking" and "Love" scales or Larzelere and

Huston's "Trust" scale) [Note: The shorter version of the PLS has only a slightly lower coefficient alpha—0·91. The results below will refer only to the long version of the PLS, although similar statistics were secured with the shorter version.]

The responses to the PLS were subjected to principal factoring with multiple correlations used as communality estimates. After rotation, one major factor explained 70 per cent of the variance (eigenvalue = 12·24).

Finally, the results suggest that the scale is uncontaminated by a social desirability bias. The correlation between the PLS and the Social Desirability Scale was nonsignificant ($r = 0{\cdot}09$).

The means and standard deviations of the 30 items are presented in Table 1.

*Evidence of the construct validity of the PLS: its relationship to other indicants of relationship intimacy*

If the PLS is valid, it should be related to other variables in ways expected by past empirical and/or theoretical work. We hypothesized that passionate love would be positively correlated with a variety of other feelings of intimacy. The correlations between passionate love and other measures of intimacy, for men and women separately, can be found in Table 2.

As can be seen in Table 2, scores on the PLS are highly correlated with other measures of relationship intimacy. For both men and women, the PLS is significantly correlated (<0·001 level) with Rubin's "Love" scale, Rubin's "Liking" scale, commitment, satisfaction with the overall relationship, and satisfaction with the sexual aspect of the relationship. The PLS is significantly correlated with trust for men ($P < 0{\cdot}01$), but not for women.

Furthermore, as evidence of its discriminant validity, the PLS is more highly correlated with the particular variables that are most closely related conceptually to the construct of passionate love. First, the PLS is correlated to a significantly greater degree with the one-item measure of passionate love than with the one-item measure of companionate love ($t = 2{\cdot}57$, $P < 0{\cdot}05$ for men; $t = 2{\cdot}00$, $P < 0{\cdot}05$ for women). Second, the PLS is significantly more correlated with Rubin's "Love" scale than Rubin's "Liking" scale ($t = 5{\cdot}56$, $P < 0{\cdot}01$ for men; $t = 4{\cdot}34$, $P < 0{\cdot}01$ for women). Third, the PLS is significantly more correlated with Rubin's "Love" scale than with the Trust scale ($t = 7{\cdot}44$, $P < 0{\cdot}01$ for men; $t = 8{\cdot}27$, $P < 0{\cdot}01$ for women). (Trust has been identified as one of the major components of companionate or conjugal love; see, for example, Driscoll *et al.*, 1972.)

That passionate love is generally highly correlated with other measures of intimacy and correlated to a significantly greater degree with those variables most similar conceptually, provides evidence for the validity of the PLS.

**Table 1.** *Means and standard deviations of passionate love items*

| Passionate love items | Men | | Women | |
|---|---|---|---|---|
| | Mean | S.D. | Mean | S.D. |
| 1. | 4·43 | 2·47 | 4·75 | 2·81 |
| 2. | 7·18 | 2·10 | 7·53 | 2·15 |
| 3. | 6·02 | 2·47 | 6·18 | 2·26 |
| 4. | 6·93 | 2·23 | 7·05 | 1·86 |
| 5. | 6·12 | 2·19 | 5·83 | 2·52 |
| 6. | 8·29 | 1·13 | 8·33 | 1·04 |
| 7. | 7·14 | 2·35 | 7·42 | 1·93 |
| 8. | 7·83 | 1·71 | 8·12 | 1·52 |
| 9. | 5·98 | 2·62 | 6·18 | 2·63 |
| 10. | 7·02 | 1·82 | 7·47 | 1·62 |
| 11. | 7·70 | 1·67 | 7·63 | 1·79 |
| 12. | 6·56 | 2·66 | 6·92 | 2·27 |
| 13. | 5·70 | 2·25 | 5·95 | 2·31 |
| 14. | 7·02 | 1·88 | 6·80 | 2·28 |
| 15. | 6·24 | 2·34 | 6·40 | 2·23 |
| 16. | 6·81 | 2·16 | 7·22 | 2·01 |
| 17. | 7·88 | 1·37 | 7·45 | 1·61 |
| 18. | 7·98 | 1·27 | 8·23 | 1·03 |
| 19. | 6·42 | 1·90 | 6·57 | 2·32 |
| 20. | 6·56 | 2·22 | 6·90 | 2·63 |
| 21. | 6·12 | 2·11 | 6·45 | 2·20 |
| 22. | 7·33 | 1·76 | 7·75 | 1·59 |
| 23. | 7·33 | 1·47 | 7·00 | 2·07 |
| 24. | 7·42 | 1·65 | 6·70 | 2·03* |
| 25. | 7·62 | 1·54 | 8·08 | 1·05* |
| 26. | 7·32 | 1·56 | 7·80 | 1·35 |
| 27. | 7·47 | 1·48 | 7·37 | 1·61 |
| 28. | 5·22 | 2·53 | 5·62 | 2·57 |
| 29. | 7·08 | 1·89 | 6·87 | 1·69 |
| 30. | 6·36 | 2·04 | 6·55 | 2·33 |
| Total passionate love | 204·75 | 37·22 | 209·12 | 38·12 |

* A significant difference was found between men and women on this item.

We examined not only how the PLS is associated with other measures of feelings and attitudes within the relationship, but also how it is associated with desire to engage in particular intimate behaviors with the partner. There is a long-standing debate on whether attitudes and/or feelings (e.g., passionate love, companionate love, trust) are predictive of actual behavior. Although the relationship between attitudes and behavior has been examined in several specific contexts (such as contraceptive behavior and voting

**Table 2.** *Correlations of passionate love with other measures of relationship intimacy*

| Variable | Men | Women |
|---|---|---|
| Other measures of feeling: | | |
| Rubin's "Love" | 0·86*** | 0·83*** |
| Rubin's "Liking" | 0·46*** | 0·51*** |
| Trust | 0·30** | 0·16 n.s. |
| Commitment | 0·87*** | 0·73*** |
| Satisfaction with overall relationship | 0·69*** | 0·42*** |
| Satisfaction with sexual aspect of relationship | 0·56*** | 0·32*** |
| One-item indicant of passionate love | 0·71*** | 0·71*** |
| One-item indicant of companionate love | 0·48*** | 0·56*** |
| Desire for interaction: | | |
| Go out tonight | 0·62*** | 0·23* |
| Be with right now | 0·58*** | 0·30* |
| Talk with | 0·54*** | 0·34** |
| Held by | 0·56*** | 0·44** |
| Kiss | 0·49*** | 0·31** |
| Engage in sex | 0·34** | 0·34** |
| How sexually excited are you? | 0·29** | 0·31** |

*** $P < 0{\cdot}001$; ** $P < 0{\cdot}01$; * $P < 0{\cdot}05$.

behavior), the attitude/behavior link has not been thoroughly examined within the context of the intimate relationship. There is some evidence, however, to indicate that love, as measured by Rubin's "Love" scale, is predictive of the amount of time couples spend mutually gazing (Rubin, 1970).

Although actual behaviors are not measured in this study, behavioral intentions or desires are. Respondents were asked to indicate how much they would desire to be with, held by, kiss and to do other behaviors with the partner. Furthermore, they were asked how sexually excited they were just thinking about their partners.

The correlations between these behavioral desires and the PLS are in the bottom half of Table 2. The higher the score on the PLS, the more respondents desired to interact physically with their partners, and the more sexually excited they were just thinking about them. This provides further evidence for the validity of the PLS. It also provides evidence for the proposition that measures of feelings can be predictive of behavioral intentions or desires. Unfortunately, whether feelings are predictive of actual behavior cannot be concluded from the measures used in this study.

Interestingly, the correlations between passionate love and the items of behavioral desire are greater for men than for women (with the exception of

the two items referring to sex). This may reflect the fact that men are used to being the initiator in close relationships, whereas women have taken the more passive role. That is, men have learned that they can act on their feelings, while women have not to the same degree.

There were also gender differences in the mean responses to two of the behavioral desires. Women were more likely than men to want to be with the partner right now ($t = 2{\cdot}25$, $P < 0{\cdot}05$) and want to talk with him/her ($t = 3{\cdot}21$, $P < 0{\cdot}01$). Contrary to past research suggesting that men are much more interested in sex, there was no gender difference in sexual responsiveness and desire.

In the preceding sections, we reviewed evidence for the PLS's: (a) reliability, unidimensionality, and freedom from social desirability bias, and (b) construct validity, which included its relationship to other indicants of intimacy. We will now turn to the substantive questions we posed earlier.

*The effects of gender and stage/length of relationship on passionate love*

Are there gender differences in the susceptibility to passionate love? How is love affected by time, as measured by either stage of the relationship or its duration? With the PLS, we set about to answer these two questions.

In order to determine the relationship between the background variables of gender and stage/length of relationship and passionate love, we will assess the main effect for gender, the linear and nonlinear effects of the passage of time (stage/length of relationship) and the interaction between gender and stage/length of relationship. Stage of relationship is represented by three categories of increasing degrees of intimacy: (1) occasional or regular dating, (2) exclusive dating, (3) living together and/or engaged. Length of the relationship is represented in number of months since the first time of going out.

Thus, the regression equation to be tested is the following:

$$Y = a + b_1X_1 + b_2X_2 + b_3X^2_2 + b_4X_1X_2$$

where,

$Y$ = Score on PLS

$X_1$ = Gender

$X_2$ = Passage of time

$X^2_2$ = The square of passage of time (representing the quadratic form of passage of time)

$X_1X_2$ = Gender × Passage of time (representing the interaction term)

The regression equation is conducted twice, with the passage of time represented first by the stage of the relationship and second by the length of the relationship. The results of the regression analyses are presented in Tables 3 and 4.

**Table 3.** *Regression analysis (with time represented by stage of the relationship)*

| Predictor variable: | *B* | Beta | S.E. | $F(1,111)$ | *P* |
|---|---|---|---|---|---|
| A Gender | 15·09 | 0·20 | 19·25 | 0·62 | n.s. |
| B *Stage* of the Relationship | 123·05 | 2·14 | 25·74 | 22·85 | 0·001 |
| B × B = (Curvilinear effect of Stage of relationship) | −24·11 | −1·68 | 6·19 | 15·18 | 0·001 |
| A × B = (Interaction between Gender and Stage of the relationship) | −7·95 | −0·22 | 9·38 | 0·72 | n.s. |

$R^2 = 0{\cdot}28$ $F(4,111) = 10{\cdot}78$ $P < 0{\cdot}0001$.

Note: *B* = raw regression coefficient; Beta = standardized regression coefficient; S.E. = standard error of *B*.

**Table 4.** *Regression analysis (with time represented by length of the relationship)*

| Independent variable: | *B* | Beta | S.E. | $F(1,111)$ | *P* |
|---|---|---|---|---|---|
| A = Gender | −6·41 | −0·09 | 10·89 | 0·35 | n.s. |
| B = *Length* of Relationship | 1·61 | 0·72 | 0·90 | 3·23 | 0·10 |
| B × B = Curvilinear effect of Length of Relationship | −0·03 | −0·77 | 0·01 | 6·72 | 0·05 |
| A × B Interaction between Gender and Length of relationship | 0·31 | 0·26 | 0·41 | 0·57 | n.s. |

$R^2 = 0{\cdot}32$; $F(4,111) = 3{\cdot}14$, $P < 0{\cdot}05$.

Note: *B* = raw regression coefficient; Beta = standardized regression coefficient; S.E. = standard error of *B*.

As can be seen in these tables, gender is not an important predictor of how much passionate love is experienced. In fact, it is not important as either a main effect nor in interaction with the stage of the relationship. A recent replication of this study by Easton (1985) also found that men and women from a vareity of ethnic groups love with equal passion. (We may find that men and women differ in how easily they express their intense emotions, but that is a topic for future investigation.)

Passage of time, as represented by stage of relationship, is found to have an important effect on passionate love* Both the linear and nonlinear components of stage of the relationship are found to be significant. The means for passionate love, broken down by gender and relationship stage, can be found in Table 5. Passionate love increases as the relationship goes from early stages of dating to the dating exclusively state, but then levels off by the more committed stage. Similar, but less powerful results are secured for relationship length (see Table 4). In the future, the relationship between pasage of time and passionate love should also be examined in a sample that includes couples married for varying lengths of time.

**Table 5.** *Mean of passionate love as a function of gender and dating stage*

| Stage of relationship | Mean of Passionate Love | |
|---|---|---|
| | Men | Women |
| Occasional dating/regular dating | 177·50 ($n = 16$) | 164·83 ($n = 12$) |
| Exclusive dating | 215·45 ($n = 31$) | 220·89 ($n = 35$) |
| Living together and/or engaged | 216·67 ($n = 9$) | 218·31 ($n = 13$) |

Although a stage/length of relationship × gender interaction was not secured, examination of the means in Table 4 indicates that the largest difference between men and women appears in the early stages of dating, when men passionately love more than women. This is consistent with past research that has found that men may be the first to fall in love, while women are more cautious (Coombs and Kendell, 1966; Kanin, Davidson, and Scheck, 1970).

## CONCLUSIONS

This paper was designed to introduce the PLS. The PLS contains cognitive, emotional, and behavioral indicants of "longing for union". Evidence is provided that the scale is reliable and valid. It has high internal consistency, is uncontaminated by a social desirability bias, and is unidimensional. Furthermore, it is highly correlated with other measures of feelings of intimacy, which provides support for the construct validity of the scale.

The validity and reliability of a scale cannot be determined in one study and/or in one way. It is necessary that future investigations provide additional tests of the validity and reliability of this newly-developed PLS. In

* Because of the cross-sectional nature of the data, in this study we can draw only limited conclusions concerning this question. Not only can time have an effect on passionate love, but passionate love can have an effect on the longevity of the relationship.

fact, additional evidence is already accumulating on the scale's validity (see Easton, 1985 and Sullivan, 1985).

One study explored whether gender and relationship stage/length affected PLS scores. No differences were found in men and women's passionate feelings.

Passionate love did appear to be altered by the passage of time. Both the linear and curvilinear components of passage of time (stage and length of relationship) had significant effects on passionate love.

The next step of passionate love researchers is to use the PLS in research designed to continue to uncover the correlates of this intense emotion. Researchers have already begun to do this (see Sullivan and Landis, 1984; Shizuri, Fujii and Sullivan, 1985; Easton, 1985; Hatfield *et al.*, 1985; Sullivan, 1985).

## CLINICAL IMPLICATIONS

The senior author is a family therapist at King Kalakaua Center in Honolulu. She and her co-therapist Richard Rapson often use the PLS with adolescents to open conversation on the nature of love. Adolescents are asked to complete the PLS, Rubin's "Love" and "Liking" measures, and Miller and Lefcourt's (1982) "Intimacy" scale. This process gives adolescents a chance to express their ideas and feelings, and to begin a series of conversations about the nature of love, sex, and intimacy. It gives therapists a chance to talk about the skills adolescents must develop if they are to be capable of shaping a passionate encounter into a relationship which is companionate and intimate as well. [For such a "training program", see Hatfield (1984).]

## DIRECTIONS FOR FUTURE RESEARCH

The PLS appears to be a reliable and valid measure of passionate love. What then is the next step? That seems relatively clear. Theorists have often distinguished between passionate and companionate love. They have assumed that passionate love vs. companionate love may have slightly different antecedents, correlates, and consequences. Thus, they argue that it is critically important to study each type of love separately. [For example, the need to treat each type of love as a separate entity has been argued by Kelley (1981).]

Now that a relatively pure measure of passionate excitement exists, we can begin the twin tasks of (1) examining the extent to which the PLS and scales such as Rubin's "Love" scale are measuring similar vs. different entities, and (2) Determining whether or not different forms of love really do have different antecedents and consequences.

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