

A brief history of social scientists' attempts to measure passionate love

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Abstract

The concept of passionate love has a long history, yet it was not until the 1940s that social scientists created tools designed to measure this emotion. Over the next 60 years, numerous scales of romantic and passionate love were created and tested. Currently, however, there exists no single compendium of existing scales. This paper attempts to fill in the missing information on existing love scales by providing a list of 33 different measures and indicating where each scale's reliability and validity information can be found. We close by attempting to explain how scholars' conceptions of the nature of love have changed over the years, and how these historical and scientific changes are reflected in the scales designed to measure passionate love.

Keywords

love, measures, passionate love, romantic love, scales

For more than 5000 years, poets, writers, and troubadours have sung of the delights and sufferings of love and lust. When the Sumerians invented writing around 3500 BCE, one of the first topics they wrote about was passionate love. Buried among the Sumerians' clay tablets was history's oldest known love letter – a poem dedicated to King Shu-Sin by one of his chosen brides. She wrote: "Bridegroom, let me caress you. My precious

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caress is more savory than honey" (Arsu, 2006). Passionate love and sexual desire possess a very long and distinguished lineage.

Beginning in the 1940s, social scientists began crafting ways to measure this emotion (sometimes called passionate love, romantic love, puppy love, deficiency love, being in love *versus* loving, limerence, and the like.) A few of the pioneering measures were casually constructed. They read a bit like the slap-dash "scales" readers confront in *Cosmopolitan* or *Glamour*. (Those who constructed the scales provided little or no information as to their theoretical rationale or the scales' reliability and validity). Most, however, were well conceived and utilized (then) sophisticated psychometric techniques in their construction. What has become of these measures? Alas, many of them have been lost in the mists of time.

Scientists interested in assessing attitudes, personality, emotion, or occupational aptitude and achievement can often turn to yearbooks or handbooks to find a vast collection of potentially relevant scales. Not so with passionate love scales and related constructs. In spite of the intense interest in such measures, strangely enough, no single compendium exists that would allow scholars to sort through and choose among existing scales. True, a few passionate love scales appear in publications such as the *Buros' Mental measurement yearbook* (Geisinger, Spies, Carlson, & Plake, 2007), the *Handbook of family-measurement techniques* (Touliatos, Perlmutter, & Straus, 1990), or the *Handbook of sexually related measures* (Fisher, Davis, Yaber, & Davis, 2009), but only a few. It is difficult to ferret out these measures. There are several reasons for this. Firstly, it is difficult to find the authors and names of these scales. GoogleScholar allows one to access only a few of these measures. Once we know the scale's name, it is often difficult to find a reference to the original scale and to secure a copy. We may find dozens of references to studies that have used the scale, but no information as to where one can find the scale itself, much less information as to the scale's reliability and validity, and critiques of the scale. Descriptions of these scales are usually scattered throughout a number of journals, and published in an array of disciplines (clinical psychology, social psychology, sociology, marriage and family courses, and the like).

In this paper, we will attempt to fill in this missing information. We will (1) provide a list of the authors and names of 33 different measures of passionate love; (2) indicate where a copy of the scales can be found (if indeed published accounts are available); and (3) point the way to sources where the latest information as to the reliability and validity of these measures (as well as serious critiques), can be found. We hope that this list will be useful to researchers who may be interested in the history of love measures, who wish to critique existing measures, who wish to survey existing measures in order to choose the best available measure for their research projects, or who wish to avoid wasting time constructing passionate love measures of their own, when an abundance of perfectly good measures are already available. We will close by pointing out how scholars' conceptions as to the nature of love have changed over the years, and how these historical and scientific changes are reflected in the scales designed to measure this concept.

Definition of passionate love

For the purposes of this paper, we will define passionate love as follows.

A state of intense longing for union with another.

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A complex functional whole including appraisals or appreciations, subjective feelings, expressions, patterned physiological processes, action tendencies, and instrumental behaviors. Reciprocated love (union with the other) is associated with fulfillment and ecstasy; unrequited love (separation) is associated with emptiness, anxiety, or despair (Hatfield & Sprecher, 2010).

Scientists have given many names to this kind of love. For simplicity's sake, we will label these constructs collectively as "passionate love." Sex researchers tend to use the terms "passionate love" and "sexual desire" almost interchangeably. This is not surprising given that passionate love is defined as a "longing for union," while sexual desire can be defined as a "longing for *sexual* union."

Collecting scales designed to measure passionate love (1940 to the present)

Method

We first attempted to collect all the measures of passionate love that we could find. In order to do this, we engaged in the following bits of detective work. We first contacted pioneers in love research, as well as scholars who were currently conducting research on romantic attraction, mating, and personal relationships, and asked them for leads. We discovered three scholars who had assembled lists of such scales – George A Parks, University of Washington, who provided a mimeographed copy of "The measurement of love: A bibliography," which he had constructed in April of 1991 for his graduate class in personal relationships. We also found a text by Oliver CS Tzeng (1993) on the *Measurement of love and intimate relations* and an article by Fehr (1994), both of which contained a few additional scales. Our next step was to personally contact all the scholars who had attempted to construct such scales and ask for information about the construction of their scales and up-to-date information as to their scales' reliability and validity and any existing critiques with which they were familiar. (Naturally, given the time span of our survey, a number of these psychometricians were deceased, ill, or otherwise unavailable.) We also conducted computer searches of the terms "passionate love," "puppy love," "romantic love," "infatuation," "desperate love," "obsessive love," "limerence," "eros," "mania," "being in love," and so forth, utilizing the PsycINFO database (American Psychological Association, 1967–2010) and MEDLINE (National Library of Medicine, 1966–2010) and search engines such as Google, GoogleScholar, Safari, Explorer, and Netscape. In the end, we were able to identify 72 potential measures.

We then read the original articles introducing the scale, studies by scholars who had utilized the scales in research, critics of the various scales' methodology, and supplementary publications dealing with these measures. This allowed us to narrow our list of measures to those that actually attempted to measure attitudes toward passionate love or the cognitive, emotional, or behavioral indicants of such love and the intensity of that love, rather than some related construct (such as companionate love, liking, intimacy, or relationship stability.) Finally, we constructed a list of these measures, and wrote to the original authors, their collaborators, critics, and secondary users of the scale, asking the following.

- Do you know the name of any measures of the various kinds of romantic love that we have omitted from our list?
- Have we used the appropriate name for *your* love scale? (Scholars often used slightly different names at different times.)
- Where can we find the latest published version(s) of your love scale? (Please indicate cost if applicable.)
- Have we correctly described what YOU hoped to measure with this love scale?
- Where can scholars find up-to-date information on the reliability and validity of this scale? We would be especially interested in any critiques of this scale with which you are familiar.

When all was said and done, we were able to identify 33 scales that assessed the kinds of people who tend to be most susceptible to love, attitudes toward passionate love, or the cognitive, emotional, and behavioral characteristics associated with this form of love and/or the intensity of love. Surely more exist, but we have been unable to find them.

The pioneer in attempting to assess attitudes toward romantic love was Llewellyn Gross (1944), a University of Buffalo sociologist. In an attempt to discover a Romantic Cultural Pattern in visions of love, Gross sorted through articles written by sociologists, attended movies, collected popular songs, and listened to radio "soap operas," and other cultural artifacts. Even by today's strict standards, Gross's work is quite sophisticated psychometrically; his scale was artfully and rigorously constructed. He began with 240 statements expressing either a Romantic or Realistic sentiment. After a great deal of pretesting, he whittled these items down to an 80-item scale, designed to measure a Romantic Cultural Pattern versus its opposite, a Realist Cultural Pattern. The two scales contain such items as (Romanticism) "The impetuous person makes the best kind of sweetheart," versus (Realism) "It is questionable whether there is any love strong enough to overcome the passing of time." Respondents were instructed to check those statements with which they agreed. The extent to which college men and women possessed a Romantic view was calculated by summing the number of Romantic items checked minus the number of Realistic items checked. Gross (1944) provided considerable evidence that his scale was indeed a reliable and valid one.

More scales followed.

Scales¹

Llewellyn Gross (1944): Sociology

Attitudes Toward Romanticism Scale. Designed to assess people's tendency to possess a romantic versus a realistic view of love relationships (80 items).

For information on the scale's reliability and validity, see Gross (1944; this article contains 16 items of the 80-item scale).

Charles W. Hobart (1958): Sociology

A Romanticism Scale. Hobart attempted to construct a short (12-item) version of the Gross *Attitudes Toward Romanticism Scale*, with a simplified (Agree or Disagree) scoring

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system. It measures the extent to which one endorses romantic beliefs such as "To be truly in love is to be in love forever."

For information on the shorter scales' reliability and validity, see Hobart (1958; article contains the 12-item scale).

Dwight Dean (1961, 1964): Sociology

Romanticism Scale. Designed to measure the extent to which people think romantic love is of primary importance in a relationship and all other considerations are unimportant. Consists of a 16-item scale gauging attitudes toward romantic love, a six-item scale of emotions and feelings associated with love, and a 21-item scale assessing subjective experiences when in love.

For information on the scale's reliability and validity, see Dean (1961 (the 32-item in the Romanticism scale did not appear in this article), 1964) and Spanier (1972; the 32-item Dean Romanticism Scale is not included in this paper).

Clifford H. Swensen (1961); revised scale: C. H. Swensen, M. Killough, J. W. Nelson, & D. Dunlap (1992): Psychology

The Scale of Feelings and Behavior of Love. Designed to identify the patterns of behavior and feelings people exhibit and experience in their love relationships. Among the things assessed are the verbal, material, and physical expressions of love; shared values, outlooks, and activities; and self-disclosure; considerateness and a willingness to forgive flaws (383 items).

For information on the scale's reliability and validity, see Swensen (1961 (contains only a few sample items of the 383 item scale), 1990 (describes the history of the scale and contains a few of the revised 120-item scale items), Swensen and Gilner (1964) and Swensen et al. (1992; contains the 383-item revised scale) (for a critique of this measure, see Swensen and Fuller, 1992).

Ira L. Reiss (1964a,b, 1967): Sociology

The Reiss Romantic Love Scale. Designed to measure beliefs concerning the nature of romantic love. Allows one to assess the relationship between love and sexual permissiveness (12 items).

For information on the scale's reliability and validity, see Reiss (1967 (the scale is discussed on pp. 45-53 and pp. 78-81, while the eight-item love scale appears on p. 77), 1976).

Ronald P. Hattis (1965): Medicine and public health

Hattis Love Scale. Designed to measure people's feelings of love. It measures six components of love - pride in partner, warm feelings for a partner, erotic feelings for partner, a desire for love in return, feelings of closeness and intimacy, including even occasional feelings of hostility (24 items).

For information on the scale's reliability and validity, see Hattis (1965; this article contains the 24-item scale) or Pam, Plutchik, and Conte (1975).

Everett L. Shostrom (1966, 1970): *Clinical and humanistic psychology*

Pair Attraction Inventory and the Caring Relationships Inventory. The Pair Attraction Inventory (PAI) is designed to measure men and women's attitudes and feelings toward their partners and their relationship. The Caring Relationships Inventory (CRI) is designed to measure five elements of love – affection, friendship, eros, empathy, and self-love (83 items).

For information on the scale's reliability and validity, see Shostrom (1980a,b; the 83-item CRI and the 224-item PAI are available from EdITS, P. O. Box 7234, San Diego, CA) (for a critique of this measure, see Shostrom, 1972).

William M. Kephart (1967): *Sociology*

Romantic Love Scale. Designed to measure characteristics of romantic love – cultural status, mysticism, love at first sight, cardiac-respiratory love, complete involvement and exclusiveness, daydreaming, jealousy, centrality and urgency.

For information on the scale's reliability and validity, see Kephart (1967, 1973; scale available from author).

David H. Knox and Michael J. Sporkowski (1968): *Sociology*

A Love Attitudes Inventory. Designed to measure romantic versus conjugal love, they argue that romantic love is characterized by excitement, arousal, and urgency (original scale 85 items; revision 30 items).

For information on the scale's reliability and validity, see Fehr (1994), Knox (1970, 1971; presents the entire 30-item scale) and Knox and Sporkowski (1968; contains 29 of the original 85-item Attitudes Toward Love scale).

E. J. Kanin, K. R. Davidson, & S. R. Scheck (1970)

Love Reactions Measure. Designed to measure the extent to which lovers experience intense passionate reactions when in love (8 items).

For information on the scale's reliability and validity, see Fehr (1994).

Zick Rubin (1970): *Psychology and law*

Love and Liking Scales. Designed to measure romantic love and liking.

The scale is designed to measure three components of romantic love: affiliative and dependent needs, a predisposition to help, and an orientation of exclusiveness and absorption. The *Love scale* possesses a few items designed to assess romantic love, but is generally it is considered to be primarily a measure of companionate love (12 items).

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For information on the scale’s reliability and validity, see Fehr (1994) and Graham and Christiansen (2009) (for a critique of this measure, see Hendrick & Hendrick, 1986; Kelley, 1983).

Charles B. Spaulding (1970): Sociology

Romantic Love Complex. Designed to measure beliefs about love (11 items, four of which overlap with Hobart’s scale). For information on the reliability and validity of this measure see Fehr (1994) and Spaulding (1970).

Karen K. Dion and Kenneth L. Dion (1973): Psychology

Romantic Love Questionnaire. Designed to measure several parameters of romantic love: (1) people’s attitudes toward romantic love; (2) their subjective emotional experiences when in love; and (3) the frequency, duration, and intensity of their romantic experiences (consists of a 16-item scale gauging attitudes toward romantic love, a six-item scale of emotions and feelings associated with love, and a 21-item scale assessing respondents’ subjective experiences when in love).

For information on the scale’s reliability and validity, see Dion and Dion (1973, 1975) and Fehr (1994) (for a critique of this measure, see Hendrick & Hendrick, 1989).

Panos D. Bardis (1974, 1978): Sociology

Erotometer and Orpheus-Eurydice, Zeus, Penelope Typology. Designed to measure attitudes toward heterosexual love (50 items).

For information on the scale’s reliability and validity, see Bardis (1974, 1978).

Alfred P. Fengler (1974): Sociology

Romantic Idealism. Deigned to assess romantic idealism versus realism (six items). For information on the scale’s reliability and validity, see Fehr (1994) and Fengler (1974).

John Alan Lee (1974): Sociology

The Styles of Loving Scale. Designed to measure eight possible love styles: eros, ludis, storge, mania, ludic eros, storgic eros, storgic ludis, or pragma (35 items).

For information on the scale’s reliability and validity, see Lee (1974; this article contains the 35-item Styles of Love Scale).

Thomas E. Lasswell and Marcia E. Lasswell (1976): Sociology and psychology

For a later, more popular version see Lasswell and Lobsenz (1980).

The SAMPLE Profile. This profile is so named for the initial letter of six scales. Based on John Lee’s (1973) earlier scale, the authors attempted to isolate six distinct concepts of love: storge, agape, mania, pragma, ludis, and eros (53 items).

For information on the scale's reliability and validity, see Lasswell and Lasswell (1976; the 53-item Profiles of Personal Concepts of Loving scale is included in this article) and Lasswell and Lobsenz (1980).

Brenda E. Munro and Gerald R. Adams (1978a,b): Sociology

Love Attitudes Scale. This scale is comprised of three subscales: Romantic Power, Romantic Idealist, and a Conjugal-Relational view (26 items.)

For information on the scale's reliability and validity, see Fehr (1994) and Munro and Adams (1978a,b).

Dorothy Tennov (1979): Psychology

Limerence. Scale designed to assess limerence (or passionate love.)

For reliability and validity information see Tennov (1979). Her "scale" consists entirely of material from books, poetry, plays, and readers' letters to demonstrate that the many characteristics of limerence (or passionate love), such as idealization, shyness, swings from joy to despair, obsessive thinking, and fear of rejection, are cultural universals (for a critique of this measure, see Reynolds, 1983).

Harold Bessell (1981): Clinical psychology and sex therapy

The Romantic Attraction Questionnaire. Designed to measure romantic chemistry (60 items.)

For information on the scale's reliability and validity, see Bessell (1981). Scales are available in Bessell and Hurlburt (2004; for a critique of this measure, see Reynolds, 1983).

Eugene W. Mathes (1982): Psychology

The Romantic Love Symptom Checklist. Designed to measure the extent to which men and women display the feelings that are elicited by thoughts of their romantic partner (76 items).

For information on the scale's reliability and validity, see Mathes (1982; the 76-item true or false measure is available from author) and Mathes and Severa (1981).

David H. Olson, D. G. Fournier, and J. M. Druckman (1985): Family social psychology

PREPARE-ENRICH Program—Enriching and nurturing relationship issues, communication, and happiness. This scale is designed as a diagnostic tool for couples seeking marriage counseling. It is designed to assess three aspects of love relationships – personal issues, interpersonal issues, and external issues. A number of items measure constructs related to passionate love (12 categories and 125 items).

For information on the scale's reliability and validity, see Tzeng (1993) and Life Innovations: www.prepare-enrich.com (for a critique of this measure, see Bowling, Hill, and Jencius, 2005).

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Michael B. Sperling (1985): Psychology

Desperate Love Scale. Designed to measure the extent to which men and women are susceptible to desperate love, which is said to be characterized by narcissism, idealization, neediness, anxious attachment, diffuse interpersonal boundaries, and an insatiable desire for love (eight items).

For information on the scale's reliability and validity, see Sperling (1985; questionnaire available from author).

Elaine Hatfield and Susan Sprecher (1986): Psychology and sociology

Passionate Love Scale. Designed to assess the cognitive, physiological, and behavioral indicants of passionate love (the scale comes in two parallel versions – a 15-item and a 30-item scale).

For information on the scale's reliability and validity, see Fehr (1994), Graham and Christiansen (2009) and Hatfield and Sprecher (2010). [See *The Most Popular Scales* for more details.] (For a critique of this measure, see Fehr, 1994, Hendrick & Hendrick, 1989; Landis & O'Shea, 2000.)

Clyde Hendrick and Susan Hendrick (1986; Hendrick, Hendrick, & Dicke, 1998): Psychology

Love Attitudes Scale and the Love Attitudes Scale: Short Form. Designed to measure six types of love – eros, ludus, storge, pragma, mania, and agape. Two types of love (eros and mania) seem most closely related to passionate love (the eros and mania measures consist of four items each; the entire questionnaire consists of 24 items).

For information on the scale's reliability and validity, see Graham and Christiansen (2009) and Hendrick and Hendrick (1986 (original version of the scale – article contains the 42-item Love Attitudes Scale), 1989). [See *The Most Popular Scales* for more details.]

Keith E. Davis and H. Latty-Mann (1987; Davis, 2001): Psychology

The Relationship Rating Form: A measure of the characteristics of romantic relationships and friendships. Designed to measure seven global characteristics (viability, intimacy, passion, care, global satisfaction, commitment, and conflict/ambivalence) and 20 facets of romantic relationships and friendships. One factor (passion) seems most related to passionate love (there is a brief 16-item version and an original 68-item version).

For information on the scale's reliability and validity, see Davis (2001) and Davis and Latty-Mann (1987). The original 68-item scale and the newer, brief 16-item version are available on the author's University of South Carolina webpage and via http://people.cas.sc.edu/daviske/LoveFriendsMeasure_rrf.pdf (for a critique of this measure, see Hendrick & Hendrick, 1989).

Cindy Hazan and Phillip Shaver (1987): Developmental psychology

General Relationship Attitudes. Designed to assess three types of romantic attachments: avoidant, anxious-ambivalent, and secure attachments. Although technically the General Relationship Attitudes (GRA) is a precursor of passionate love (and not a *measure* of passionate love), two love styles (anxious-attachment and secure love styles) seem closely linked to passionate love.

Initially, the three love styles were each assessed via a one-item scale. In response to psychometric critiques, a number of attachment researchers developed a variety of scales to measure the construct. Other scholars have proposed that people possess four, five, or even six attachment styles (see Bartholomew & Horowitz, 1991; Charania & Ickes, 2007; Hatfield & Rapson, 2005, 2010; Hazan & Shaver, 1987; Latty-Mann & Davis, 1996 for a description of these various perspectives – all based on the original Hazan and Shaver work). In an attempt to reconcile these differences, Brennan, Clark, and Shaver (1998) conducted a large-sample factor-analytic study in which all known self-report measures were included in a single analysis. The authors found 12 specific-construct factors that, when factored, formed two more global factors – 45-degree rotations of the dimensions of Anxiety and Avoidance. Currently, the authors recommend that researchers use the Brennan et al. (1998) 36-item measures or (if preferred) one of the other two-dimensional measures constructed by Collins and Read (1990, 1994), Feeney, Noller, and Hanrahan, (1994), Fraley and Waller (1998), Fraley, Waller, and Brennan (2000), and Simpson, and Rholes (1998) (see Brennan et al., 1998). See <http://internal.psychology.illinois.edu/~rcfraley/measures/measures.html> for a discussion of these alternate measures of the original Hazan and Shaver (1987) construct.

Regardless of the version of the scales used, over the decades, scholars have discovered that – in a wide variety of cultures and ethnic groups, and among people of different ages and sexual orientations – people's attachment styles have been found to have a profound impact on men's and women's romantic preferences, their comfort when facing serious romantic commitments, the dynamics of romantic and marital relationships, and how they react when romantic and marital relationships fall apart (for a summary of this vast literature, see Hatfield & Rapson, 2009).

For information on the scale's reliability and validity, see Tzeng (1993).

Susan Sprecher and Sandra Metts (1989): Sociology and communication

Romantic Beliefs Scale. Designed to assess an ideology of romanticism, this scale assesses four beliefs: Love Finds a Way, One and Only, Idealization, and Love at First Sight (15 items).

For information on the scale's reliability and validity, see Fehr (1994) and Sprecher and Metts (1989; contains the 15-item Romantic Beliefs Scale) (for a critique of this measure, see Weaver & Canong, 2004).

Elaine Hatfield and Richard L. Rapson (1993, 2005): Psychology and history

Love Schemas Scale. Designed to measure six love styles, based on an extension of the Hazan and Shaver model: clingy, secure, skittish, fickle, casual, and uninterested.

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types of romantic attachments: Although technically the General Love Scale (and not a *measure* of it and secure love styles) seem

one-item scale. In response to psychologists developed a variety of scales to measure how people possess four, five, or even six types of love (Hazan & Ickes, 1991; Charania & Ickes, 2007; Hatfield, Latty-Mann & Davis, 1996 for an original Hazan and Shaver work). Hatfield, Latty-Mann, and Shaver (1998) conducted a study in which self-report measures were included in a battery of factors that, when factored, formed dimensions of Anxiety and Avoidance. Brennan et al. (1998) 36-item measures constructed by Collins and Frazier and Waller (1998), Frazier, Brennan, and Waller (1998). See [http://www.psychology.com/love/love.html](#) for a discussion of the construct.

the decades, scholars have discussed different groups, and among people of different attachment styles have been found to have different preferences, their comfort with intimacy, and their comfort with romantic and marital relationships fall apart (for a critique, see Hatfield, 2009). For a critique, see Tzeng (1993).

Psychology and communication

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see Fehr (1994) and Sprecher & Cate (1999) (for a critique of this

2005): Psychology and history

styles, based on an extension of the Sternberg Triangular Theory of Love Scale, casual, and uninterested.

One type (clingy) seems most closely related to passionate love (one item in a three-item scale).

For information on the scale's reliability and validity, see Hatfield and Rapson (2010) (for a critique of this measure, see Stephan & Bachman, 1999).

Arthur Aron and Lori Westbay (1996)

Prototype of Love Scale. Based on the pioneering work of Fehr (1988) and Fehr and Russell (1991), the authors developed a scale designed to measure people's conceptions of love and the extent to which they experienced passion, intimacy, and commitment in their own relationships (five items assess passion in a 15-item scale).

For information on the scale's reliability and validity, see Aron and Westbay (1996), Fehr (1988), and Fehr and Russell (1991).

Robert Sternberg (1997): Cognitive psychology

Triangular Theory of Love Scale. Sternberg argues that different kinds of love differ in how much of three different components – passion, intimacy, and decision/commitment to stay together – they possess. Passionate love (which he labels infatuation) involves intense passionate arousal but little intimacy or commitment (15 items of a 45-item scale).

For information on the scale's reliability and validity, see Graham and Christiansen (2009) and Sternberg (1997). [See *The Most Popular Scales* for more details.] (For critiques of this measure, see Aron & Westbay, 1996; Hendrick & Hendrick, 1989; Tzeng, 1993.)

Félix Neto and Etienne Mullet (2002): Psychology

The Romantic Acts Questionnaire. Designed to assess the importance attributed to romantic acts (such as kindness, trust, and sexual acts) by Portuguese and Cape Verdean peoples (nine items of a 28-item Romantic Acts Questionnaire).

For information on reliability and validity see Neto and Mullet (2002; article contains the nine-item Romantic Acts Questionnaire) and Neto, Mullet, and Barros (2003).

Helen Fisher (2004): Anthropology and neuroscience

Being in Love: A Questionnaire. Designed to measure infatuation, passionate love, and romantic love (54 items).

For information on the scale's reliability and validity, see Fisher (2004).

The changing face of passionate love measures

If one reads through the articles containing descriptions of the preceding passionate love scales (in temporal order), several trends jump out.

Interest in passionate love has burgeoned

When Ellen Berscheid and Elaine Hatfield (1969) wrote *Interpersonal attraction*, the first social psychology textbook to contain a chapter on romantic love, they discovered that almost no social psychological research on passionate love had been conducted. They were forced to speculate about the nature of love with little or no data – and (sadly or happily, depending upon your own point of view) precious little experience of their own to guide them.

What a change has occurred in 40+ years! Today, scholars from a wide variety of theoretical disciplines – anthropologists, clinical psychology, communication studies, developmental psychology, evolutionary psychologists, historians, neurobiologists, neuroscientists, primatologists, social psychologists, and sociologists, among others – are attempting to understand the nature of love. They are employing an impressive array of new techniques. Primatologists are studying primates in the wild and in captivity. Neuroscientists are pouring over functional magnetic resonance images (fMRIs). Historians are now studying history from the “bottom up” rather than the “top down,” generally examining the lives not of kings and queens but of the majority of people. They utilize demographic data (marriage, birth, divorce, and death records), architecture, medical manuals, paintings, church edicts, law cases, songs, and the occasional treasure of a diary that turns up in someone’s attic. Anthropologists go out into the field or track down early ethnographic records. People from a variety of fields now study not just passionate love, but many types of love, commitment, and relationship satisfaction (see Hatfield & Rapson, 1993; Reis, 2009; Reis and Sprecher, 2009).

Passionate love is now assumed to be a universal emotion/motivation

Early sociologists assumed passionate love was a Western phenomenon. As Goode (1959) observed: “The implicit understanding [among sociologists] seems to be that love as a pattern is found only in the United States” (p. 40). Sociologists possessed a rather dim view of this “Western” phenomenon. Many lamented the fact that young Americans tended to choose life partners on the basis of flimsy, transient emotions, such as romantic love and sexual desire. Generally, these sociologists found wisdom in more traditional societies, where marriage stood on a more solid foundation of community and familial approval.

Hobart (1958) observed:

Sociological interest was first focused on this subject by E. W. Burgess in his classic paper on “The Romantic Impulse and Family Disorganization,” in which he emphasized the dysfunctions of romanticism for the family.

Willard Waller, who stressed the irresponsible pleasure-seeking aspects of the rating-dating complex, saw idealization and romanticization as a natural response to blocking of the sex drive. He conceived of unrealistic romantic love as “the anesthetic which renders the amputation of our cherished habits [of “blessed singleness”] painless,” in marriage.

... Parsons sees adolescent romantic love as part of a more general tendency in a youth subculture to behave in unconventional, irresponsible, unrealistic ways... (p. 362).

wrote *Interpersonal attraction*, the notion of romantic love, they discovered that passionate love had been conducted. It was done with little or no data – and (sadly) with precious little experience of their

Today, scholars from a wide variety of disciplines – psychology, communication studies, anthropology, linguists, historians, neurobiologists, and sociologists, among others – are employing an impressive array of techniques in the wild and in captivity. These include brain resonance images (fMRIs). His- tory is “top down,” rather than the “top down,” that has come out of the majority of people. They study death records), architecture, music, songs, and the occasional treasure hunt. Psychologists go out into the field or track down a variety of fields now study not just the nature of love and relationship satisfaction (see Hatfield et al., 2009).

Why emotion/motivation

Western phenomenon. As Goode (1986) [and sociologists] seems to be that love is a cultural phenomenon. Sociologists possessed a rather different perspective. They noted the fact that young Americans experience transient emotions, such as romantic love, are found wisdom in more traditional cultures. The notion of community and familial

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functioning aspects of the rating-dating scale as a response to blocking of the sex drive. The aesthetic which renders the ampu- tation painless,” in marriage.

There is a general tendency in a youth sub- culture to do things in sub- stantial ways... (p. 362).

Looking back, these views appear somewhat provincial and prudish, for today the notion that passionate love is a cultural universal is so embedded in our scholarly consciousness that it seems almost a part of researchers’ DNA. Evolutionary theorists, such as Barkow, Cosmides, and Tooby (1992) and Buss (1994), argue that a desire for love and sex is instilled in the architecture of the mind – so critical is it to the transmission of one’s genetic heritage to the next generation. Neuroscientists, such as Bartels and Zeki (2000) and Fisher (2004), use the *Passionate Love Scale (PLS)* (Hatfield & Sprecher, 1986) to identify lovers and search for the brain structures where this universal emotion is lodged.

Anthropologists, too, have begun to document the universality of these “feelings of the heart.” William Jankowiak and Edward Fischer (1992), for example, studied men’s and women’s feelings in a collection of tribal societies. They selected 166 hunting, foraging, and agricultural societies from the *Standard Cross-Cultural Sample*, which provides comprehensive information on 186 cultures from six distinct geographical regions. In only one of the 166 societies did the resident anthropologist state that there was no evidence of passionate love. The scientists could find no evidence one way or another as to whether or not passionate love existed in 18 of the societies. In 147 of the 166 societies, people showed definite scars from Cupid’s arrows. In all of these far-flung societies, young lovers talked about passionate love, recounted tales of love, sang songs of love and longing, and talked endlessly about the cravings and anguish of infatuation. When the adolescents’ passionate affections clashed with their parents’ or elders’ wishes, sometimes they even eloped. The authors concluded that romantic love may well be a pan-human characteristic. They admitted, however, that there may be cultural variability in how common such heart-pounding, sweaty-palmed feelings are. Historians, for example, have pointed out that religious and political prohibitions against the greatest forms of social subversiveness – individualism, passionate love, and sexual desire – can effectively dampen biologically universal passions (Stone, 1977).

As a consequence, today scholars are busily translating existing measures of passionate love into a variety of languages and administering the scales in a variety of far-flung cultures (Hatfield & Rapson, 2005; Neto et al., 2000). The study of passionate love is no longer in the closet.

Over the decades, definitions of passionate love have broadened and deepened.

In the early days, theorists tended to view love from a narrow theoretical perspective. They tended to define love as an attitude OR an emotion OR as a physiological response OR as intimacy seeking behavior. In *Interpersonal attraction*, Berscheid and Hatfield (1969) defined romantic love very narrowly – as a positive attitude toward another – very much like friendship only more intense.

In the 1970s, however, as sociobiological and evolutionary psychology perspectives gained currency, social psychologists came to think of emotions as integrated wholes. As a consequence, conceptions of love began to become increasingly inclusive. The reader may have noticed that the working definition of passionate love we adopted in this paper is broad indeed:

A complex functional whole including appraisals or appreciations, subjective feelings, expressions, patterned physiological processes, action tendencies, and instrumental behaviors.

Scholars from a variety of disciplines now recognize passionate love as of critical importance, and in consequence they have begun to develop and utilize scales designed to measure various aspects of this construct. A look at today's most popular scales makes it clear that a firm theoretical vision guides scale construction and that the scales are designed to assess cognitive, emotional, and behavioral components of love. They are also designed to assess the personality of lovers and the varieties of love that may exist.

These facts have had a profound impact on the development of modern-day passionate love scales

Sociologists pioneered the development of passionate love scales.

The very first passionate love scales (in the 1940s and 1950s) were conceived by sociologists teaching large marriage and the family classes.

By 1985 change was in the wind. As Hendrick and Hendrick (1986) noted: "During the past decade, love has become respectable as an area for study by psychologists" (p. 392). Scholars were moving from a narrow sociological focus on romantic love as a prelude to marriage (preferably a happy or at least stable marriage) to an interest in understanding the nature of love, in and of itself. As we observed, there is a new emphasis on theory building. What do men and women mean by love? Whom do they love? Why do they love? What is the nature of that love? How intensely do men and women love? What are the behavioral consequences of that love? Currently, scales exist to tap all those interests.

If modern-day scales are to be accepted, they must display more psychometric sophistication.

When we examine the earliest scales, we find that although they attempted to conform to the (then) ideal psychometric standards, modern-day psychometricians would judge them to fall far short of the sophisticated standards now considered the sine qua non of publication. The later scales remedy those defects.

The most popular scales

Today, the most commonly used scales of passionate love measures (see Graham & Christiansen, 2009; Masuda, 2003) are one that assesses people's attitudes toward love (Hendrick & Hendrick's *Love Attitudes Scale*) and two that directly assess people's feelings of love, in and of itself (Hatfield and Sprecher's *PLS* and Sternberg's *Triangular Love Scale*).

Attitudes toward love

Love Attitudes Scale. John Alan Lee (1973) proposed that when men and women think of "love," they might be thinking of characteristics of any of six types of love: *Mania* (possessive, dependent love), *Eros* (passionate love), *Pragma* (logical, "shopping list"

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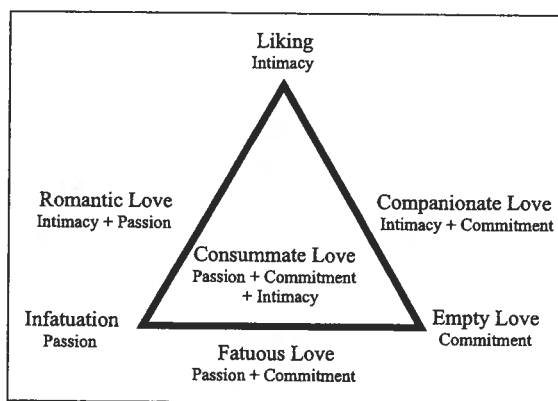


Figure 1. The Triangular Model of Love. Sternberg (1988), p. 122.

love), *Storge* (friendship love), *Ludus* (game-playing love), or *Agape* (all-giving, selfless love) (both *Pragma* and *Storge* sound a bit like companionate love; both *Eros* and *Mania* sound a bit like passionate love). In 1986, Clyde Hendrick and Susan Hendrick developed a carefully crafted a 42-item scale to tap these six varieties of love. *Eros*, for example, contains such items as "My partner and I were attracted to each other immediately after we first met." Possible responses range from 1 = strongly agree to 5 = strongly disagree.

In the decades since the introduction of the scale, Hendrick and Hendrick and their colleagues have collected a great deal of evidence that the *Love Attitudes Scale* (or *Love Styles Scale*) is indeed a reliable and valid scale (see Hendrick & Hendrick, 1986, 1989, 1990 (a new revision of the scale); Hendrick et al., 1998). A brief version of scale was developed, the *Love Attitudes Scale: Short Form* (Hendrick et al., 1998). This 24-item scale has strong psychometric properties and appears to measure the six varieties of love as well as does the longer version.

Over the years, scholars have begun to use the scale as both a measure of people's attitudes toward love and a measure of their experience in love.

The emotion of passionate love

Triangular Theory of Love Scale. Robert Sternberg (1988) outlined a triangular model of love. He argued that different kinds of love differ in the extent to which they contain the three basic ingredients of love – passion, intimacy, and the decision and commitment to stay together (see Figure 1).

As you can see from Figure 1, three kinds of love each offer just one main asset: *Passionate love* (which Sternberg labeled "infatuation"), which thrives on passion (but promises little commitment or intimacy). *Empty love* involves the decision to stay committed, but little else. *Liking* provides intimacy alone. On the other hand, other kinds of love provide more than one asset. *Companionate love* offers more. It may be lacking in passion, but it provides a great deal of intimacy and commitment. *Romantic Love* provides both intimacy and passion. *Fatuous love* involves passion and commitment. *Consummate love* is the most complete form of love. It has it all: passion, intimacy, and commitment.

The Triangular Theory of Love Scale (TLS) consists of 45 items designed to assess the three components: passion, intimacy, and commitment. It consists of statements such as "Just seeing _____ excites me," and "I find myself thinking about _____ during the day." Possible answers are indicated on a nine-point unidirectional Likert scale, ranging from 1 = "Not at all," to 9 = "Extremely."

A great deal of evidence exists to indicate that the TLS is a fine predictor of people's romantic attitudes, emotions, and behavior. For information on the reliability and validity of this scale, see Sternberg (1997) or Tzeng (1993). For a critique of the Sternberg scales, see Aron and Westbay (1996).

The Passionate Love Scale. The PLS was designed to assess the cognitive, physiological, and behavioral indicants of passionate love (Hatfield & Sprecher, 1986). The *cognitive components* consist of (1) intrusive thinking or preoccupation with the partner; (2) idealization of the other or of the relationship; (3) desire to know the other and be known by him/her. Emotional components consist of (1) attraction to the partner, especially sexual attraction; (2) positive feelings when things go well; (3) negative feelings when things go awry; (4) longing for reciprocity—passionate lovers not only love, but they want to be loved in return; (5) desire for complete and permanent union; and (6) physiological (sexual) arousal. Finally, *behavioral components* consist of (1) actions aimed at determining the other's feelings; (2) studying the other person; (3) service to the other; and (4) maintaining physical closeness. The most common form of the PLS is a 15-item scale, but an alternative 15-item version (consisting of parallel but different items) is also available. The two scales can be combined to form a 30-item scale.

Participants are presented with statements such as: "I would feel deep despair if _____ left me" and are asked to indicate how true the statement is of them. Possible responses range from 1 = not at all true; to 9 = definitely true.

The PLS has been administered to children (via a children's version of the PLS (Hatfield & Young, 2010), adolescents, and adults in a variety of cultures and countries, such as France, Germany, India, Indonesia, Iran, Italy, Japan, Korea, Peru, Poland, Spain, Sweden, and Switzerland, and has been translated into more than a dozen languages. In recent fMRI studies of brain activity, the PLS has been found to correlate well with certain well-defined patterns of neural activation. For example, Aron et al. (2005) discovered that PLS scores correlated well with activation in a region of the *caudate* associated with reward (see Bartels & Zeki, 2000, 2004 and Hatfield & Rapson, 2009, for a review of recent neuroscience research correlating the PLS with participants' fMRI reactions). The PLS has also been found to be highly correlated with a variety of scales and measures of love, intimacy, and sexuality (see Graham & Christiansen, 2009; Hatfield & Sprecher, 2010; Hatfield & Young, 2010; Masuda, 2003, for information on the reliability and validity of both the JLS and the PLS measures.)

Conclusion

In this paper we presented information on 33 scales that have been devised to measure the construct of passionate love and its close cousins, "puppy love," "romantic love,"

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"infatuation," "desperate love," "obsessive love," "limerence," "eros", "mania,"
"being in love," and the like. We spent some time reviewing how scholars' visions of
passionate love and the scales needed to measure this construct have changed over time.
Firstly, interest in passionate love has burgeoned. The social sciences once considered
love to be a taboo subject. Now, scholars from a variety of disciplines – anthropologists,
clinical psychology, communication studies, developmental psychology, evolutionary
psychologists, historians, neurobiologists, neuroscientists, primatologists, social psy-
chologists, and sociologists, among others – are investigating the antecedents and con-
sequences of such love. Currently, there are a plethora of scholarly journals devoted to
this topic. Passionate love is now assumed to be not a Western social construction but a
universal emotion/motivation. Over the decades, definitions of passionate love have
broadened and deepened. Once, theorists tended to view love from a narrow theoretical
perspective. Now, most theorists assume love to be a multi-faceted phenomenon.

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Note

1. All of the scales mentioned in this article have been filed with the Kinsey Institute. Contact: Dr Liana Zhou, Chief Librarian, The Kinsey Institute for Research in Sex, Gender, and Reproduction, 401 Morrison Hall, Indiana University, Bloomington, IN 47405-2501, USA. zhou@indiana.edu or www.kinseyinstitute.org.

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