

97. Hatfield, E. & Rapson, R. L. (March 13-15, 2007). Passionate love and sexual desire: Multidisciplinary perspectives. In J. P. Forgas (Ed.). *Personal Relationships: Cognitive, Affective, and Motivational Processes*. 10th Sydney Symposium of Social Psychology. Sydney, Australia.

Dr. Elaine Hatfield
2430 Campus Road
University of Hawai'i
Honolulu, HI 96822
(808) 956-6276
elaineh1@aol.com
<http://www.elainehatfield.com>
<http://www.elainehatfield.com/novels.htm>

Word Count: 5,968

Passionate Love and Sexual Desire: Multidisciplinary Perspectives

Elaine Hatfield and Richard L. Rapson

University of Hawai'i

Outline

- I. Introduction
- II. Anthropological and Evolutionary Perspectives
- III. Neuroscience and Biological Perspectives
- IV. Historical Perspectives
- V. Cross-Cultural Perspectives
- VI. How Long Does Passionate Love Last?
- VII. Speculations About the Future

I. Introduction

The Sumerians invented writing around 3500 BCE. Buried among the Sumerians' clay tablets is inscribed history's first known love poem, It dedicated to King Shu-Sin by one of his chosen brides. She says: "Bridegroom, let me caress you/My precious caress is more savory than honey" (Arsu, 2006). Passion possesses a very long lineage.

A. Defining Passionate Love

Poets, novelists, and social commentators have proposed numerous definitions of passionate love. We accept this one:

A state of intense longing for union with another. Passionate love is 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) with emptiness, anxiety, or despair (Hatfield & Rapson, 1993, p. 5).

The Passionate Love Scale was designed to assess the cognitive, physiological, and behavioral indicants of such love (Hatfield & Sprecher, 1986). It has been translated into a variety of languages—including Farsi, German, Indian, Indonesian, Korean, Peruvian, Spanish, and Swedish (Kim & Hatfield, 2004; Lundqvist, 2006.)

In this paper, we will review what scholars from a variety of disciplines—anthropology, neuroscience, social psychology, cross-cultural psychology, and history—have discovered about the nature of passionate love and sexual desire.

II. Anthropological and Evolutionary Perspectives

Americans are preoccupied with love—or so cross-cultural observers once claimed. In a famous quip, Linton (1936) mocked Americans for their naïve idealization of romantic love and their assumption that it was a prerequisite to marriage:

All societies recognize that there are occasional violent, emotional attachments between persons of opposite sex, but our present American culture is practically the only one which has attempted to capitalize these, and make them the basis for marriage. . . . The hero of the modern American movie is always a romantic lover, just as the hero of the old Arab epic is always an epileptic. A cynic may suspect that in any ordinary population the percentage of individuals with a capacity for romantic love of the Hollywood type was about as large as that of persons able to throw genuine epileptic fits. (p. 175)

Throughout the world, a spate of commentators have echoed Linton's claim that passionate love is a peculiarly Western institution (Hatfield & Rapson, 1996; Murstein, 1974). Yet, such confident assertions are wrong.

People in all cultures have recognized the power of passionate love. In Australian aboriginal literature, for example, the tale is told of twin sisters, Mar-

rallang, who fell in love with Wy-young-gurrie. The trio defied traditional taboos, and married. Powerful tribal leaders tried to separate them with “truth, inexorable law, and raging fire” but failed. There are also the “Dreamings” of Lintypilinti, who chanted love songs and sent a magical bird to a woman who turned out to be his mother in law; as punishment for breaking a Jungarrayi taboo, the two lovers were turned to stone (Uniapon, 2001).

Today, most anthropologists argue that passionate love is a universal experience, transcending culture and time (Buss, 1994; Hatfield & Rapson, 1996; Jankowiak, 1995; Tooby & Cosmides, 1992). Jankowiak and Fischer (1992), for example, proposed that both passion and lust are universal feelings. Drawing on a sampling of tribal societies from the *Standard Cross-Cultural Sample*, they found that in almost all societies, young lovers talked about passionate love, recounted tales of love, sang love songs, and spoke of the longings and anguish of infatuation. When passionate affections clashed with parents’ or elders’ wishes, young couples often eloped.

Passionate love and sexual desire, then, appear to be cultural universals.

III. Neuroscience and Biological Perspectives

Recently, social psychologists, neuroscientists, and physiologists have begun to explore the links between love, sexual desire, and sexual behavior.

The first neuroscientists to study passionate love were Birbaumer and his Tübingen colleagues (1993). They concluded (on the basis of their EEG assessments) that passionate love was “mental chaos.” More recently, Bartels and Zeki (200) (using fMRI imaging techniques) attempted to identify the brain

regions associated with passionate love. They put up posters around London, advertising for men and women who were “truly, deeply, and madly in love.” Seventy young men and women from 11 countries and several ethnic groups responded. All scored high on the *Passionate Love Scale (PLS.)* Seventeen men and women were rolled into an fMRI scanner. This high-tech mind-reader constructs an image of the brain in which changes in blood flow (induced by brain activity) are represented as color-coded pixels. Bartels and Zeki gave each person a photograph of their beloved to gaze at, alternating the beloved’s picture with other friends with whom he or she was not in love. They then digitally subtracted the scans taken while the subjects viewed the “friends” pictures from those taken while they viewed their “beloved” pictures, creating images that represented the brain regions that became more (or less) active when people viewed their beloved’s picture. These images, the researchers argued, show the brain regions involved when a person experiences passionate love.

Bartels and Zeki (2000) discovered that passion sparked increased activity in the brain areas associated with euphoria and reward, and decreased levels of activity in the areas associated with sadness, anxiety, and fear. Activity seemed to be restricted to foci in the medial insula and the anterior cingulate cortex and, subcortically, in the caudate nucleus, and the putamen, all bilaterally. Most of the regions that were activated during the experience of romantic love have previously been shown to be active while people are under the influence of euphoria-inducing drugs such as opiates or cocaine. Apparently, both passionate love and those drugs activate a “blessed-out” circuit in the brain. The

anterior cingulate cortex has also been shown to become active when people view sexually arousing material. This makes sense since passionate love and sexual desire are generally thought to be “kissing cousins.”

Among the regions whose activity *decreased* during the experience of love were zones previously implicated in the areas of the brain controlling critical thought and in the experience of painful emotions such as sadness, anger and fear. The authors argue that once we get close to someone, there is less need to critically assess their character and personality. (In that sense, love may indeed be “blind.”) Deactivations were also observed in the posterior cingulate gyrus and in the amygdala and were right-lateralized in the prefrontal, parietal, and middle temporal cortices. The authors also found passionate love and sexual arousal to be tightly linked.

Other psychologists who have studied passionate love and sexual desire (using fMRI techniques) have found roughly similar (but not identical) results (Fisher, et al., 2006; Aron et al., in press).

This is only one-half of the equation, of course. In the preceding research, the couples were happily in love. But love is often unrequited. What kind of brain activity occurs when people have been rejected and, as our definition implies, are feeling anxiety, anger, emptiness, and/or despair?

In a recent study, Fisher and her colleagues (2006) studied men and women who had been wildly in love but had just been rejected by their beloved. Preliminary fMRI analysis indicated that rejected lovers display greater activity in the right nucleus accumbens/ventral putamen/pallidum, lateral orbitofrontal

cortex, and anterior insular/operculum cortex—areas associated with theory of mind (understanding others), with go-for-broke risk taking, and with anxiety, pain, obsessive/compulsive behaviors, and attempts at controlling anger. Alas, other neuroscientists who have studied the fMRI responses of lovers who were actively grieving over a recent romantic breakup, found very different results (Najib, 2004). Perhaps we are back to Bierbaumer and his colleagues' (1993) initial observation that “love is mental chaos.”

In parallel with this fMRI research, a number of social psychologists, neurobiologists, and physiologists have begun to explore the neural and *chemical* substrates of passionate love, sexual desire, and sexual behavior (Carter, 1998; Komisaruk & Whipple, 1998; Maraziti, et al., 1999; Marazziti & Canale, 2004.) Their results seem to fit nicely with the work on romantic love. They have not studied the chemistry of romantic rejection as yet, however.

Psychologists may differ on whether romantic and passionate love are or are not emotions (Fisher, 2006; Shaver, Morgan, & Wu, 1996) and whether passionate love, sexual desire, and sexual motivation are closely related constructs (both neurobiologically and physiologically) or very different in their natures (Beck, Bozman, & Qualtrough, 1991; Diamond, 2004; Hatfield & Rapson, 1987.) Nonetheless, this path-breaking neuroscience and neurobiological research, though in its early stages, has the potential to answer age-old questions as to the nature of love and human sexuality.

IV. Historical Perspectives

Passionate love is as old as humankind. The Sumerian love poem which began this chapter dated from 3500 BCE. The Sumerian love fable, telling of Inanna and Dumuzi, was spun by tribal storytellers in 2000 BCE (Wolkstein, 1991.) The world literature abounds in stories of lovers caught up in a sea of passion and violence: Daphnis and Chloe (Greek myths), Shiva and Sati (Indian), Hinemoa and Tutanekai (Maori), Emperor Ai and Dong Xian (Chinese) and the VhaVhenda lover who was turned into a crocodile (African).

Although passionate love and sexual desire have always existed, they were rarely encouraged. Throughout history, most cultures and the political and religious authorities that held power viewed passionate lovers' primitive and powerful feelings as a threat to the social, political, and religious order, and thus they endeavored to suppress such dangerous feelings. In the West, during the early Christian era, for instance, suppression was especially harsh. For 1500 years—from the earliest days of the Roman Catholic Church to the 16th Century Protestant Reformation and Catholic Counter-Reformation--the Church proclaimed passionate love and sex (even marital sex) for any purpose other than procreation to be a mortal sin, punishable by eternal damnation (Gay, 1984). In those early days, love was not expected to end well. Romeo and Juliet, Ophelia and Hamlet, Abelard and Eloise did not make love, get married, have two children, and live happily ever after. Juliet stabbed herself. Romeo swallowed poison. Ophelia went mad and died. Hamlet was felled by a poisoned sword point. Peter Abelard (a real person) was castrated and his

beloved Eloise retired to a nunnery. (In Japan, love suicides have been an institution since the end of the 17th century.)

In the West, after 1500, all that began to change—albeit slowly. Large transformations followed in the wake of the Renaissance, the Scientific Revolution, and the Industrial Revolution. The rest of the world has not escaped these deep currents of change, and consequently the non-West has begun to “Westernize.” Perhaps the major theme in world history over the past 500 years has been the rise of the West and the subsequent “Westernization” of the rest of the world, and that includes psychological dimensions as well as economic, political, and technological ones.

What do historians mean by “Westernization?” It has meant an increasing insistence on individualism, the desirability of the goal of personal happiness and the reduction of pain, and a metamorphosis in Euro-American approaches to love and sex. The West initiated such ideas and practices (among many) as: marriage for love (as opposed to arranged marriage); egalitarian families (as opposed to patriarchal, hierarchical arrangements); the high value placed on romantic and passionate love, including the possibility that love affairs did not have to end in castration and suicide; sexual freedom for men *and* women; the movement toward gender equality, and childhood considered as a separate phase of the life cycle with children deserving special treatment (as opposed to treating very young children as miniature adults sent out to farm the fields as soon as they could walk.) By 1800, the West had been significantly transformed

by these ideas. Slowly after that, the rest of the world would commence to follow suit.

One particularly intriguing and important phenomenon: it has taken the West over 500 years (from the Renaissance into the present) to even approach accepting such “modern” homegrown ideas about love, sex, and intimacy. In non-Western cultures, however, historians have been observing that many of these same changes sometimes seem to occur in less than 50 years. Given the speed of these transformations, it sometimes seems as though some deity has pushed the fast-forward button on social change. (For more recent research on the history of passionate love and sexual desire, see Anderson & Zinsser, 1999; Collins, 2003; Coontz, 2005; Gay, 1984, 1986, 1996, 1999; Hartog, 2001; Hodes, 1999; Robb, 2004; Yalom, 2001.)

V. Cross-Cultural Perspectives

Culture can, of course, have a profound impact on how people view love, how susceptible they are to falling in love, with whom they tend to fall in love, and how their passionate affairs work out.

Cross-cultural psychologists such as Harry Triandis and his colleagues (1990) have observed that the world's cultures differ profoundly in the extent to which they emphasize individualism or collectivism (although some would focus on related concepts: independence or interdependence; modernism or traditionalism; urbanism or ruralism; affluence or poverty). Individualistic cultures (such as the United States, Britain, Australia, Canada, and the countries of northern and western Europe) allow members to focus on personal goals.

Collectivist cultures (such as China, many African and Latin American nations, Greece, southern Italy, and the Pacific Islands) insist that members subordinate personal interests to those of the group. Individualist cultures stress rights over duties; collectivists stress duties over rights.

Let us now review what cultural researchers have discovered about the impact of culture on passionate love and sexual desire.

A. The Meaning of Passionate Love

In a now classic study, Shaver, Wu, and Schwartz (1991) interviewed young people in America, Italy, and the People's Republic of China about their emotional experiences. They found that Americans and Italians tended to equate love with happiness and to assume that both passionate and companionate love were intensely positive experiences. Students in Beijing, China, possessed a darker view of love. In the Chinese language, there are few "happy-love" words; love is associated with sadness. Not surprisingly, then, in the 1990s, Chinese men and women tended to associate passionate love with such ideographs as infatuation, unrequited love, nostalgia, and sorrow love. (Shaver, et al., 2001, argue that China, too, may be "modernizing" in their view of love.)

Researchers agree that cultural values may have a subtle influence on the meanings people associate with the construct "love." (Kim & Hatfield, 2004; Kitayama, 2002; Luciano, 2003; Nisbett, 2003; Oyserman, Kemmelmeier, & Coon, 2002; Weaver & Ganong, 2004.) There is, however, considerable debate as to the importance of such differences. When social psychologists explored folk conceptions of love in a variety of cultures—including the People's Republic

of China, Indonesia, Micronesia, Palau, and Turkey—they found that people possessed surprisingly similar views of love and other “feelings of the heart” (see Fischer, Wang, Kennedy, & Cheng, 1998; Jankowiak, 1995; Kim and Hatfield, 2004; Shaver, Murdaya, & Fraley, 2001, for a review of this research.)

As we observed earlier, cultural theorists have predicted that cultural rules should exert a profound impact on how common passionate feelings are within a culture, how intensely passion is experienced, and how people attempt to deal with these tumultuous feelings. Alas, the sparse existing data, provide only minimal support for this intriguing and plausible sounding hypothesis.

B. Culture and Susceptibility to Love

Sprecher and her colleagues (1994) interviewed 1,667 men and women in the United States, Russia, and Japan. Based on notions of individualism *versus* collectivism, the authors predicted that American men and women should be most vulnerable to love, the Japanese the least likely to be “love besotted.” The authors were wrong. Passion turned out to be more common worldwide than they had expected. In fact, 59% of American college students, 67% of Russians, and 53% of Japanese students said they were in love at the time of the interview. In all three cultures, men were slightly less likely than were women to be in love (see Table 1). There was no evidence, however, that individualistic cultures breed young men and women who are more love-struck than do collectivist societies.

Are You Currently in Love?

		<u>YES</u>
	American men	53%
	American women	63
	Russian men	61
	Russian women	73
	Japanese men	41
	Japanese women	63

Table 1

Similarly, surveys of Mexican-American, Chinese-American, and Euro-American students have found that in a variety of ethnic groups, young men and women show similarly high rates of “being in love” at the present time (Aron & Rodriguez, 1992; Doherty, Hatfield, Thompson, & Choo, 1994).

C. Intensity of Passionate Love

What impact does culture have on how passionately men and women feel about their beloved? Hatfield and Rapson (1987) asked young people of European, Filipino, and Japanese ancestry to complete the *Passionate Love Scale*. Men and women from the various ethnic groups seemed to love with equal passion. Doherty and his colleagues (1994) confirmed these results in a

study with European-American, Chinese-Americans, Filipino-American, Japanese-American, and Pacific Islanders.

PLS Scores of Various Ethnic Groups

	<u>Men</u>	<u>Women</u>
Caucasians (in Hawaii)	100.50	105.00
Caucasians (mainland USA)	97.50	110.25
Filipinos	106.05	102.90
Japanese	99.00	103.95

Table 2

D. The Willingness to Marry Someone You Do Not Love

In the West, since the 19th century, love has been considered to be the *sine qua non* of marriage (Kelley, et al., 1983; Sprecher, et al., 1994.)

In the mid-1960s, William Kephart (1967) asked more than a 1,000 college students: “If a boy (girl) had all the other qualities you desired, would you marry this person if you were not in love with him (her)?” He found that men and women had different ideas as to how important romantic love was in a marriage. Men thought passion was essential (only 35% of them said they would marry someone they did not love). Women were more practical. They

said that the absence of love would not necessarily deter them from considering marriage. (A full 76% of them said they would be willing to marry someone they did not love). Kephart suggested that while men might have the luxury of marrying for love, women did not. The status of women was dependent on that of their husbands. Thus, they had to be practical and take a potential husband's family background, professional status, and income into account.

Since the 1960s, sociologists have continued to ask young American men and women this question. They have found that, year-by-year, young American men and women have come to demand more and more of love in the marital equation. In the most recent research, 86% of American men and 91% of American women answered The Question with a resounding “No!” (Allgeier & Wiederman, 1991). Today, American men and women assume that romantic love is so important that they insist that if they fell out of love, they would not even consider *staying* married! (Simpson, et al., 1986). Some social commentators have suggested that with more experience these young romantics might find that they are willing to “settle” for less than they think they would, but as yet there is no evidence to indicate that this is so.

How do young men and women in other countries feel about this issue? Many cultural psychologists have pointed out that cultural values have a profound impact on how people feel about the wisdom of love matches as compared with arranged marriages.

Throughout the world, arranged marriages are still relatively common. It seems reasonable to argue that in societies such as China (Pimentel, 2000; Xu & Whyte, 1990), India (Sprecher & Chandak, 1992) and Japan (Sprecher, et al, 1994) where arranged marriages are fairly typical, particularly in rural areas, they ought to be viewed more positively than in the West, where they are relatively rare.

To test this notion, Sprecher and her colleagues (1994), asked American, Russian, and Japanese students: "If a person had all the other qualities you desired, would you marry him/her if you were not in love?" (Students could answer only yes or no.) The authors assumed that only Americans would demand love *and* marriage; they predicted that both the Russians and the Japanese would be more practical. They were wrong! Both the Americans and the Japanese were romantics. Few of them would consider marrying someone they did not love. (Only 11% of Americans and 18% of the Japanese said "Yes"). The Russians were more practical; 37% of them said they would accept such a proposal. Russian *men* were only slightly more practical than were men in other countries. It was the Russian *women* who were most likely to "settle."

Despite the larger proportion of Russian women willing to enter a loveless marriage, it remains true that a large majority of individuals in the three cultures would refuse to marry someone they do not love (see Table 3).

Would You Marry Someone You Did Not Love?

		<u>YES</u>	<u>NO</u>
	American men	13%	87%
	American women	9	91
	Russian men	30	70
	Russian women	41	59
	Japanese men	20	80
	Japanese women	19	81

Table 3

Similarly, in a landmark study, Levine and his colleagues (1995) asked college students in 11 different nations if they would be willing to marry someone they did not love even if that person had all the other qualities they desired. (Students could answer “yes” or “no” or admit that they were “undecided”). In affluent nations such as the United States, Brazil, Australia, Japan, and England young people were insistent on love as a prerequisite for marriage. Only in traditional, collectivist, third world nations such as the Philippines, Thailand, India, and Pakistan were students willing to compromise and marry someone they did not love. In these societies, of course, the extended family is still extremely important and poverty widespread (see Tables 4-5).

Question 1: If a man (woman) had all the other qualities you desired, would you marry this person if you were not in love with her (him)?

	India	Pakistan	Thailand	USA	England	Japan
Yes	49.0	50.4	18.8	3.5	7.3	2.3
No	24.0	39.1	33.8	85.9	83.6	62.0
Undecided	26.9	10.4	47.5	10.6	9.1	35.7
	Philippines	Mexico	Brazil	HongKong	Australia	
Yes	11.4	10.2	4.3	5.8	4.8	
No	63.6	80.5	85.7	77.6	80.0	
Undecided	25.0	9.3	10.0	16.7	15.2	

[Answers are shown in percentages]

Table 4

Question 2: If love has completely disappeared from a marriage, I think it is probably best for the couple to make a clean break and start new lives. Ó

	India	Pakista	Thailan	USA	Englan	Japan
Agree	46.2	33.0	46.9	35.4	44.6	41.1
Disagre	26.0	49.6	32.1	34.7	23.2	17.7
Neutral	27.9	17.4	21.0	29.9	32.1	41.9
	Philippine	Mexico	Brazil	HongKor	Australi	
Agree	45.5	51.7	77.5	47.1	29.3	
Disagre	40.9	28.0	12.7	25.5	31.1	
Neutral	13.6	20.3	9.9	27.4	39.6	

[Answers are shown in percentages]

Table 5

Research suggests that today, young men and women in many countries throughout the world consider love to be a prerequisite for courtship and marriage. It is primarily in Eastern, collectivist, and poorer regions—such as in Africa or Latin America, in China or the Arab (Egypt, Kuwait, Lebanon, Libya, Saudia-Arabia, Iraq, or Syria)—that passionate love remains a bit of a luxury. However, it may be that even there, the winds of Globalization are blowing. Throughout the world, religious and parental power appears to be crumbling; the idealization of arranged marriages is being replaced by the ideal of love marriages.

VI. How Long Does Passionate Love Last?

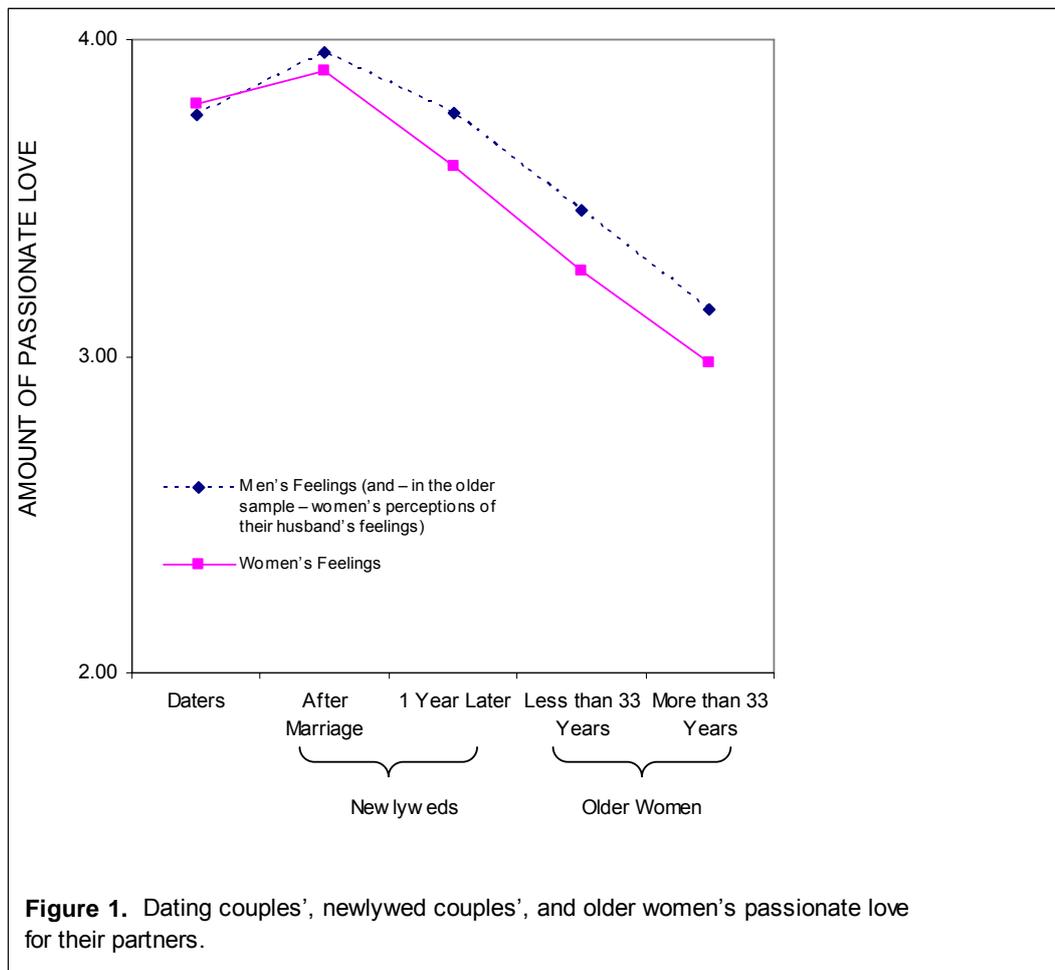
Passion soon burns itself out. Consider this exchange between anthropologist Shostak (1981) and a !Kung (African) tribesman, who were observing a young married couple, running after each other:

As I stood watching, I noticed the young man sitting in the shade of a tree, also watching. I said, "They're very much in love, aren't they?" He answered, "Yes, they are." After a pause, he added, "For now." I asked him to explain, and he said, "When two people are first together, their hearts are on fire and their passion is very great. After a while, the fire cools and that's how it stays." . . . "They continue to love each other, but it's in a different way—warm and dependable." . . . How long did this take? "It varies among couples. A few months, usually; sometimes longer. But it always happens." Was it also true for a lover? "No," he explained, "feelings for a lover stay intense much longer, sometimes for years." (p. 268).

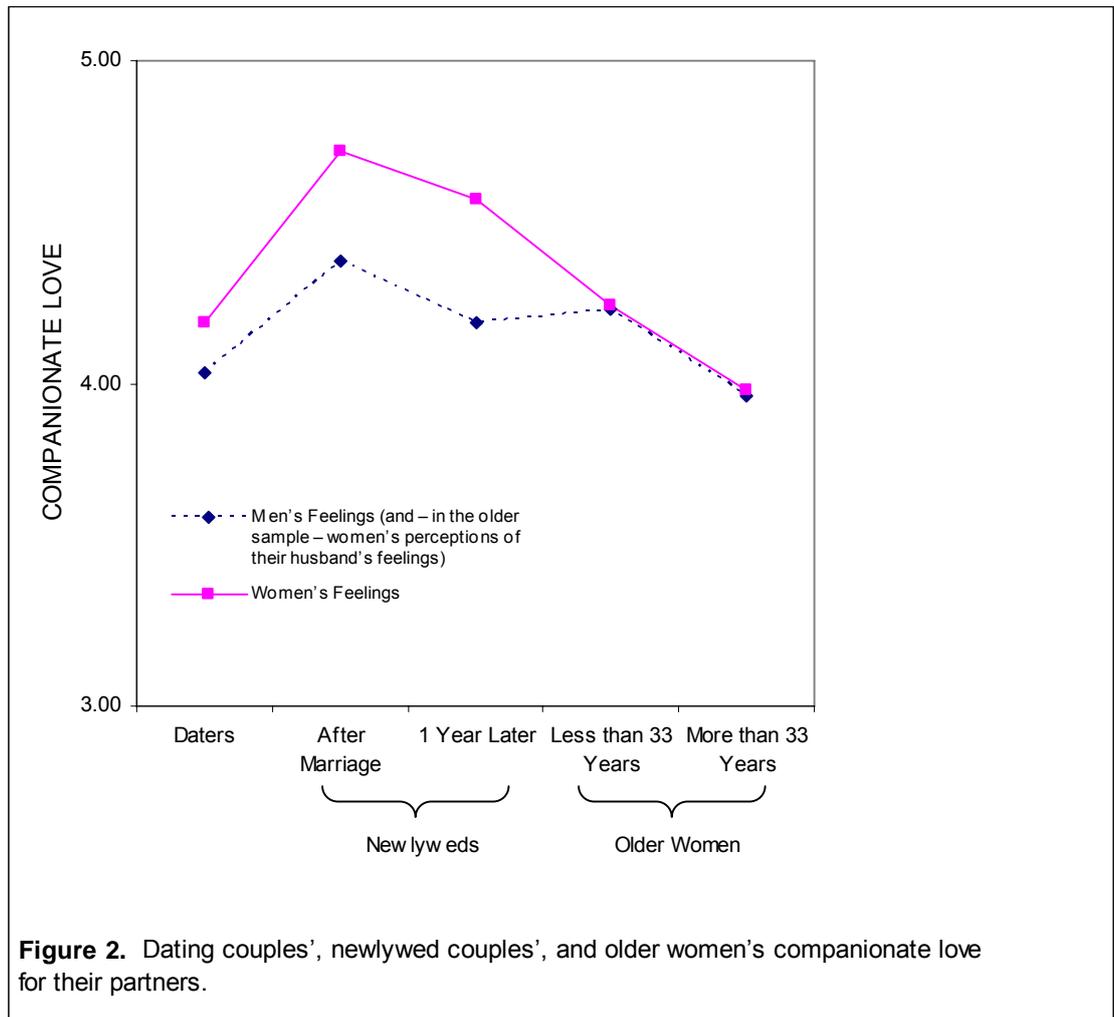
Fisher (2004) argues that the transient nature of passionate love is a cultural universal. She contends that our *Homo Sapien* ancestors experienced passionate love and sexual desire for very practical genetic reasons. They were primed to fall ardently, sexually, in love for about four years. This is precisely the amount of time it takes to conceive a child and take care of it until it is old enough to survive on its own. (In tribal societies, children are relatively self-sufficient by this age. By that time, they generally prefer to spend most of their time playing with other children.) Once our ancestors no longer had a

practical reason to remain together, they had every evolutionary reason to fall out of love with their previous partner and to fall in love with someone new. Why were people programmed to engage in such serial pair-bonding? Fisher maintained that such serial monogamy produces maximum genetic diversity, which is an evolutionary advantage.

There is indeed evidence that passionate love does erode with time. Traupmann and Hatfield (1981), for example, interviewed a truly random sample of 953 dating couples, newlyweds, and older women (who had been married an average of 33 years) in Madison, Wisconsin. (The longest marriage was 59 years.) The authors assumed that although passionate love would decline precipitously with time, companionate love would hold its own or even increase. Not quite. Over time, passionate love did plummet. Couples started out loving their partners intensely. Both steady daters and newlyweds expressed “a great deal of passionate love” for their mates. But after many years of marriage, women reported that they and their husbands now felt only “some” passionate love for one another (See Figure 1).



And what of the fate of companionate love? Theorists generally paint a rosy picture of such love. Sternberg (cited in Goleman, 1985) for example, proposed that: "Passion is the quickest to develop, and the quickest to fade (p. 13.)" Alas, the authors found that over time, both passionate and companionate love tended to decline, at approximately the same rate (See Figure 2).



This finding was especially unsettling since the authors were only interviewing couples whose marriages had survived for 10, 20, or 50 years! Couples whose relationships were most dismal, may well have divorced and thus been lost from the samples.

VII. Speculations About The Future

Yale historian Robin Winks (1968) once said that writing history is “like nailing jelly to the wall.” Trying to describe sweeping historical trends and then

attempting to predict future trends is even more difficult. But despite the fact that history does not always move in a linear direction, let us make an effort.

First, recent evidence suggests that men and women in the West appear to be moving slowly and bumpily toward gender and social equality in their sexual preferences, feelings, and experiences. Most modern societies are also moving in the direction of allowing greater sexual freedom for all individuals (although this can be slowed by events, such as the AIDS epidemic.) The global village created by worldwide communication, computers and satellites, information exchange, travel, and trade makes it hard to imagine that non-Western cultures can long hold off the deeper advancing currents of individualism or that they can forever restrain the spirit of sexual equality and experimentation. Of course, that revolution is far from being consummated--and healthy, honorable disagreement about the revolution remains ongoing.

We would predict that people throughout the world will come increasingly to accept a transforming trio of powerful ideas. First, a belief in the equality of women and members of minority groups. Second, a belief that the pursuit of happiness and the avoidance of pain are desirable goals in life. (This may seem obvious, but it is a truly revolutionary change.) Finally, there seems to be an inexorable tendency toward the belief that change and improvement in life are attainable, and that actions aimed at the realization of those ends may be preferable to resignation and the passive acceptance of age-old traditions. The idea of "progress" may be an invention the 18th century European *philosophes*,

but that “new” notion seems to be slowly gaining currency throughout our planet.

References

Allgeier, E. R., & Wiederman, M. W. (1991). Love and mate selection in the 1990s. *Free Inquiry*, 11, 25-27.

Anderson, B., & Zinsser, J. (1999). *A history of their own: Women in Europe from prehistory to the present*. (Vol. 1, 2) London: Oxford University Press.

Aron, A., Fisher, H., Mashek, D., Strong, G., Li, H-F., & Brown, L. L. (2005) Early-stage, intense romantic love activates subcortical reward and motivation regions and a dynamic network that varies with intensity of passion, duration of relationship, and gender. *Journal of Neurophysiology*, 94, 327-337.

Aron, A., & Rodriguez, G. (1992, July 25). *Scenarios of falling in love among Mexican-, Chinese-, and Anglo-Americans*. Sixth International Conference on Personal Relationships. Orono, ME.

Arsu, S. (February 14, 2006.) The oldest line in the world. *The New York Times*, p. 1.

Bartels, A. & Zeki, S. (November 27, 2000). The neural basis of romantic love. *Neuroreport*, 11, 3829-3834.

Beck, J. G., Bozman, W. W., & Qualtrough, T. (1991). The experience of sexual desire: psychological correlates in a college sample, *The Journal of Sex Research*, 28, 443-456.

- Birbaumer, N., Lutzenberger, W., Elbert, T., Flor, H., & Rockstroh, B. (1993). Imagery and brain processes. In Niels Birbaumer and Arne Öhman (Eds.) *The structure of emotion*. Göttingen, Germany: Hogrefe & Huber Publishers. (pp. 132-134)
- Buss, D. M. (1994). *The evolution of desire*. New York: Basic Books.
- Carter, C. S. (1998). Neuroendocrine perspectives on social attachment and love. *Psychoneuroendocrinology*, 23, 779-818.
- Collins, G. (2003). *America's women: Four hundred years of dolls, drudges, helpmates and heroines*. New York: Morrow.
- Coontz, S. (2005). *Marriage: a history*. New York: Viking.
- Diamond, L. M. (2004). Emerging perspectives on distinctions between romantic love and sexual desire. *Current Directions in Psychological Science*, 13, 116-119.
- Doherty, R. W., Hatfield, E., Thompson, K., & Choo, P. (1994). Cultural and ethnic influences on love and attachment. *Personal Relationships*, 1, 391-398.
- Fischer, K. W., Wang, LI, Kennedy, B., & Cheng, C-L. (1998). Culture and biology in emotional development. *Socioemotional development across cultures. New directions for child development*, No. 82). (pp. 20-43.)
- Fisher, H. E. (2004). *Why We Love: The nature and chemistry of romantic love*. New York: Henry Holt and Company.

Fisher, H. E. (2006). The drive to love: the neural mechanism for mate selection. In R. J. Sternberg & K. Weis. *The new psychology of love*, New Haven: Yale University Press, pp. 87-115.

Fisher, H., Aron, A., Brown, L. L. (January 14, 2006). Romantic love: A mammalian brain system for mate choice. The neurobiology of social recognition. *Philosophical Transactions of the Royal Society of London: B: Biological Sciences*, London: The Royal Society of London.

Gay, P. (1984). *The bourgeois experience, Vol 1: The education of the senses*. Oxford: Oxford University Press.

Gay, P. (1986). *The bourgeois experience, Vol. 2: The tender passion*. Oxford: Oxford University Press.

Gay, P. (1996). *The bourgeois experience, Vol. 4: The naked heart*. New York: Norton.

Gay, P. (1999). *The bourgeois experience, Vol. 5: Pleasure wars*. New York: Norton.

Goleman, D. (1985, September 10). Patterns of love charted in studies. *The New York Times*, p. Y13.

Goode, W. J. (1959). The theoretical importance of love. *American Sociological Review*, 24, 38-47.

Hartog, H. (2001). *Man and wife in America: a history*. Cambridge: Harvard University Press.

Hatfield, E. & Rapson, R. L. (1987). Passionate love/sexual desire: Can the same paradigm explain both? *Archives of Sexual Behavior*, 16, 259-277.

Hatfield, E. & Rapson, R. L. (1993). *Love, sex, and intimacy: Their psychology, biology, and history*. New York: Harper Collins.

Hatfield, E. & Rapson, R. L. (1996). *Love and sex: Cross-cultural perspectives*. Boston, MA: Allyn & Bacon (p. 71).

Hatfield, E., Rapson, R. L., & Martel, L.D. (in press). "Passionate Love." In S. Kitayama & D. Cohen (Eds.) *Handbook of Cultural Psychology*. New York: Guilford Press.

Hatfield, E., & Sprecher, S. (1986). Measuring passionate love in intimate relations. *Journal of Adolescence*, 9, 383-410.

Hatfield, E., & Sprecher, S. (1996). Men's and women's mate preferences in the United States, Russia, and Japan. *Journal of Cross-Cultural Psychology*, 26, 728-750.

Hodes, M. (Ed.) (1999). *Sex, love, race: Crossing boundaries in North American history*. New York: NYU Press.

Jankowiak, W. (Ed.) (1995). *Romantic passion: A universal experience?* New York: Columbia University Press.

Jankowiak, W. R. & Fischer, E. F. (1992). A cross-cultural perspective on romantic love. *Ethology*, 31, 149-155.

Kelley, H. H., Berscheid, E., Christensen, A., Harvey, J. H., Huston, T. L., Levinger, G., McClintock, E., Peplau, L. A. & Peterson, D. R. (Eds.) (1983). *Close relationships*. New York: Freeman.

Kephart, W. M. (1967). Some correlates of romantic love. *Journal of Marriage and the Family*, 29, 470-479.

Kim, J. & Hatfield, E. (2004). Love types and subjective well being. *Social Behavior and Personality: An International Journal*, 32, 173-182.

Kitayama, S. (2002.) Culture and basic psychological processes—Toward a system view of culture: Comment on Oyserman et al., (2002). *Psychological Bulletin*, 128, 89-96.

Komisaruk, B. R. & Whipple, B. (1998). Whipple B. Love as sensory stimulation: Physiological consequences of its deprivation and expression. *Psychoneuroendocrinology*, 8, 819-835.

Levine, R., Sato, S., Hashimoto, T., & Verma, J. (1995). Love and marriage in eleven cultures. *Journal of Cross-Cultural Psychology*, 26, 554-571.

Linton, R. (1936). *The study of man*. New York: Appleton-Century, p. 175.

Luciano, E. M. C. (2003). *Caribbean love and sex: ethnographic study of rejection and betrayal in heterosexual relationships in Puerto Rico*. International Academy of Sex Research meetings, Bloomington, IN.

Lundqvist, L-O. (2006). A **Swedish** adaptation of the Emotional Contagion Scale: Factor structure and psychometric properties. *Scandinavian Journal of Psychology*, 47, 263-272.

Marazziti, D., Akiskal, H. S., Rossi, A., & Cassano, G. B. (1999). Alteration of the platelet serotonin transporter in romantic love. *Psychological Medicine*, 29 (3), 741-745.

Marazziti, D. & Canale, D. (2004). Hormonal changes when falling in love. *Psychoneuroendocrinology*, 29 (7) 931-936.

Murstein, B. I. (1974). *Love, sex, and marriage through the ages*. New York: Springer.

Najib, A., Lorberbaum, J. P., Kose, S., Bohning, D. E., & George, M. S. (2004). Regional brain activity in women grieving a romantic relationship breakup. *American Journal of Psychiatry*, 161, 2245-2256.

Nisbett, R. (2003). *The geography of thought: how Asians and Westerners think differently . . . and why*. Chicago, IL: The Free Press.

Oysermann, D., Kemmelmeier, M. & Coon, H. M. (2002). Cultural psychology, a new look: Reply to Bond (2002), Fiske (2002), Kitayama (2002), and Miller. *Psychological Bulletin*, 128, 110-117.

Pimentel, E. E. (2000). "Just how do I love thee?: Marital relations in urban China." *Journal of Marriage and the Family*, 62, 32-47.

Robb, G. (2004). *Strangers: Homosexual love in the nineteenth century*. New York: Norton.

Shaver, P. R., Morgan, H. J., & Wu, S. (1996). Is love a "basic" emotion? *Personal Relationships*, 3, 81-96.

Shaver, P. R., Murdaya, U., & Fraley, R. C. (2001). Structure of the Indonesian emotion lexicon. *Asian Journal of Social Psychology*, 4, 201-224.

Shaver, P. R., Wu, S., & Schwartz, J. C. (1991). Cross-cultural similarities and differences in emotion and its representation: A prototype approach. In M.

S. Clark (Ed.), *Review of Personality and Social Psychology*, (Vol.13) (pp. 175-212). Newbury Park, CA: Sage.

Shostak, M. (1981). *Nisa: The life and words of a !Kung woman*. Cambridge, MA: Harvard University Press.

Simpson, J. A., Campbell, B., & Berscheid, E. (1986). The association between romantic love and marriage: Kephart (1967) twice revisited. *Personality and Social Psychology Bulletin*, 12, 363-372.

Sprecher, S., Aron, A., Hatfield, E., Cortese, A., Potapova, E., & Levitskaya, A. (1994). Love: American style, Russian style, and Japanese style. *Personal Relationships*, 1, 349-369.

Sprecher, S., & Chandak, R. (1992). Attitudes about arranged marriages and dating among men and women from India. *Free Inquiry in Creative Sociology*, 20, 1-11.

Tannahill, R. (1980). *Sex in history*. New York: Stein & Day.

Tooby, J. & Cosmides, L. (1992). The evolutionary and psychological foundations of the social sciences. In J. H. Barkow, L. Cosmides, & J. Tooby (Eds.). *The adapted mind: Evolutionary psychology and the generation of culture*. New York: Oxford University Press. (pp. 19-136.)

Traupmann, J., & Hatfield, E. (1981). Love and its effect on mental and physical health. In R. Fogel, E. Hatfield, S. Kiesler & E. Shanas (Eds.). *Aging: Stability and change in the family*. (pp. 253-274). New York: Academic Press.

Triandis, H. C., McCusker, C., & Hui, C. H. (1990). Multimethod probes of individualism and collectivism. *Journal of Personality and Social Psychology*, 59, 1006-1020.

Uniapon, D. (2006). Love story of the two sisters. In S. Muecke and A. Shoemaker (Eds.) *Legendary tales of the Australian Aborigines*. Melbourne: Melbourne University Publishing.

Weaver, S. E. & Ganong, L. W. (2004). The factor structure of the Romantic Belief Scale for African Americans and European Americans. *Journal of Social and Personal Relationships*, 21, 171-185.

Winks, R. (Ed.) (1968). *The historian as detective: Essays on evidence*. New York: Harper & Row.

Wolkstein, D. (1991). *The first love stories*. New York: Harper Perennial.

Yalom, M. (2001). *A history of the wife*. New York: HarperCollins.

Xu, X. & Whyte, M. K. (1990). Love matches and arranged marriages: A Chinese replication. *Journal of Marriage and the Family*, 52, 709-722.