HANDBOOK OF EMOTIONS

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CHAPTER 41

Love and Attachment Processes

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On March 30, 1981, less than 2 hours before John W. Hinckley, Jr. shot President Ronald Reagan, he scrawled a final plea to Jodie Foster, the actress with whom he was obsessed:

> Dear Jodie,
>
> There is a definite possibility that I will be killed in my attempt to get Reagan. It is for this very reason I am writing you this letter now.
>
> As you well know by now I love you very much. Over the past seven months I've left you dozens of poems, letters and love messages in the faint hope that you could develop an interest in me. . . .
>
> Jodie, I would abandon this idea of getting Reagan in a second if I could only win your heart and live out the rest of my life with you. . . .
>
> I will admit to you that the reason I'm going ahead with this attempt now is because I just cannot wait any longer to impress you. I've got to do something now to make you understand, in no uncertain terms, that I am doing all of this for your sake! By sacrificing my freedom and possibly my life, I hope to change your mind about me. This letter is being written only an hour before I leave for the Hilton Hotel. Jodie, I'm asking to please look into your heart and at least give me the chance, with this historical deed, to gain your respect and love.
>
> I love you forever,
>
> John Hinckley
>
> (quoted in Caplan, 1984, pp. 46–48)

In FBI questioning after the attempted assassination, Foster denied that she had ever met or spoken to John Hinckley (Caplan, 1984, p. 48).

Passionate love rarely leads to murderous fantasies. Yet the power of love has sparked social psychologists' and emotions researchers' interest in passionate and companionate love and the attachment processes that shape them.

DEFINITIONS

Most scientists distinguish between two forms of love—"passionate love" and "companionate love." Passionate love (sometimes called "obsessive love," "infatuation," "lovesickness," or "being in love") is an intense emotion. One typical definition is the following:

> 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) is associated with emptiness, anxiety, or despair. (Hatfield & Rapson, 1993, p. 5)

The Passionate Love Scale was designed to assess the cognitive, physiological, and behav-

ioral indicants of such a "longing for union" (Hatfield & Sprecher, 1986).

Shaver, Wu, and Schwartz (1991) interviewed young people in the United States, Italy, and the People's Republic of China about their emotional experiences. In all cultures, men and women identified the same emotions as basic or prototypic: joy/happiness, love/attraction, fear, anger/hate, and sadness/depression. Men and women also agreed as to whether the various emotions should be labeled as positive experiences (such as joy) or negative ones (such as fear, anger, or sadness). They agreed completely, that is, except about one emotion—love. The U.S. and Italian subjects tended to equate love with happiness; both passionate and companionate love were assumed to be intensely positive experiences. Chinese students, however, had a darker view of love. In China there are few "happy love" ideographs. Passionate love tended to be associated with such ideographs as "infatuation," "unrequited love," "nostalgia," and "sorrow love." Students from the East and West never did come to an agreement as to the nature of love. They continued to regard each other's visions of love as "unrealistic."

Companionate love (sometimes called "true love" or "conjugal love") is a far less intense emotion. It combines feelings of deep attachment, commitment, and intimacy. Psychologists have used a variety of scales to measure companionate love. For example, Berscheid and Hatfield (1978) focused on subjects' subjective appraisals (attitudes). Sternberg (1988) assumed that companionate relationships possess little passion but a great deal of commitment and intimacy; thus he assessed companionate love by measuring commitment and intimacy. Berscheid (1983) focused on assessing how "entwined" or linked couples' organized action sequences were.

Researchers have proposed that both passionate and companionate love can be understood, in part, by examining the mother–child attachment experiences on which they are based. Researchers interested in passionate love have tended to focus on *infants'* attachments as the prototype of later passionate attachments; researchers interested in companionate love have tended to focus on *parental* attachments as the prototype of companionate love. Of course, love relationships can involve both passionate and companionate love.

PASSIONATE LOVE

The Evolutionary Soil of Passionate Love: The Triune Brain

In the 1940s, MacLean (1986) proposed that in the course of evolution, humans have ended up with a brain that possesses a "triune structure." The brain is thought to consist of three different types of brains, layered one upon the other. The oldest brain is basically reptilian. It is primarily concerned with the preservation of the self and the species. The second brain, the neomammalian brain or limbic system, is inherited from the early mammals and evolved to facilitate mother–child relationships. Such emotions as desire, affection, ecstasy, fear, anger, and sadness all derive from activities in the limbic system. The third brain, the late mammalian/early primate brain or neocortex, is inherited from the late mammals and early primates. Not until the neocortex evolved did symbolic or verbal information become important in shaping emotional experience and expression.

Love in Primates

Rosenblum and Plimpton (1981) point out that even primates may experience a primitive form of passionate love. In some species, infant primates must possess a "desire for union" if they are to survive. Separation often means death. Thus infants are prewired to cling to their mothers. Should a brief separation occur, infants quickly become frantic and begin searching for their mothers. If they return, the infants are joyous—they cling to them and/or bound about in excitement. If the mothers do not return, the infants eventually abandon all hope of contact, despair, and die. The experience Rosenblum and Plimpton describe, with its alternating lows and highs, certainly sounds much like passionate love's "desire for union."

Love in Children

Ainsworth (1989) and Bowlby (1969, 1973, 1980) carried out extensive studies into the process of attachment, separation, and loss in children. They found that infants and toddlers react to separation in the same way as do their primate ancestors.

There is some evidence that children experience passionate love very early. Bell (1902) in-

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terviewed 1,700 Indiana teachers and observed 800 children; he concluded that children could experience "sex-love" as early as 3½ years of age. Easton and Hatfield (cited in Hatfield, Schmitz, Cornelius, & Rapson, 1988) developed the Childhood Love Scale, a children's version of the Passionate Love Scale. They interviewed more than 200 boys and girls, ranging in age from 4 to 18, about their romantic feelings. Their results made it clear that Bell was right—even the youngest of children were capable of passionate love. Subsequent research (Hatfield, Brinton, & Cornelius, 1989) has made it clear that when children are anxious or fearful, they are especially vulnerable to passionate love.

Of course, passionate love becomes very powerful when children enter puberty. Perhaps this is because teenagers experience the return of old separation anxieties during the period; perhaps they are under unusual stress as they go through the agonies of adolescence. Neurophysiologists also remind us that passionate love may also be fueled by pubescent sexual and hormonal changes (Gadpaille, 1975; Money, 1980). In any case, puberty and sexual maturity may well bring a new depth to passion.

Love in Adults

Shaver and Hazan (1988) proposed that romantic love should be conceived of as a form of attachment. Children's early patterns of attachment should influence their adult attachments. For example, children are likely to become securely attached to their mothers if they are allowed to be both affectionate *and* independent. Such children should mature into secure adults who are comfortable with intimacy and are able to trust and depend on those they care for. Children may become anxious/ambivalent if they have learned to be clingy and dependent, or fearful of being smothered and restrained, or both. Such children should become anxious/ambivalent adults who fall in love easily, who seek extreme levels of closeness, and who are terrified that they will be abandoned. Their love affairs are likely to be short-lived. The avoidant child (who has been emotionally abandoned early on) may well become an avoidant adult who is uncomfortable getting too close and has difficulty depending on others. The authors have amassed considerable support in favor of this formulation.

Recently, there has been some debate as to whether or not childhood attachment experiences have a powerful impact on adult attachment styles (Waters, Treboux, Crowell, Merrick, & Albersheim, 1995; Zimmermann, Fremmer-Bombik, Sprangler, & Grossmann, 1997). In one study, for example, Lewis, Feiring, and Rosenthal (in press) followed children as they progressed from infancy to late adolescence. They found *no* consistency in attachment classification!

In any case, social psychologists have been interested in the impact that cognitive schemas, however derived, have on people's cognitions, emotions, and behaviors. ("Schemas" have been conceptualized as cognitive plans, structures, or programs that serve as guides for interpreting information and guiding action; Fiske & Taylor, 1984.) Theorists have argued that people may possess very different love schemas—that is, different cognitive models of what it is appropriate to expect from themselves, from those they love, and from their love relationships. In an elaboration of the Shaver and Hazan (1988) model, we (Hatfield & Rapson, 1996) have proposed that people's love schemas depend on (1) how comfortable they are with closeness and/or independence, and (2) how eager they are to be involved in romantic relationships. Those who are interested in romantic relationships are said to fall into one of four types: the "secure" (who are comfortable with both closeness and independence); the "clingy" (who are comfortable with closeness but fearful of too much independence); the "skittish" (who are fearful of too much closeness but comfortable with independence); and the "fickle" (who are uneasy with either closeness or independence). Of course, there are some people who are uninterested in relationships—for example, the "casual" (who are interested in relationships only if they are almost problem-free) and the "uninterested" (who are not at all interested in relationships, problem-free or not).

We (Hatfield & Rapson, 1996) have pointed out that people's love schemas may have multiple determinants. In part (as attachment theorists have proposed), they are shaped by children's early experiences and thus are relatively permanent. To some extent, love schemas change as people progress through the various developmental stages. As adolescents mature, for example, they normally become more secure in their ability to integrate closeness and independence (Erikson, 1982). In part, love

schemas change with experience. Depending on their romantic experiences, people may become better (or less) able to deal with the stresses of love relationships. Finally, of course, people may react differently in different kinds of relationships. The same person, for example, may cling to a cool and aloof mate but become skittish with a smothering one (Napier, 1977).

The Love Schema Scale has been designed to identify people who possess each of the various love schemas (Hatfield & Rapson, 1996). Social psychologists have amassed considerable evidence in support of the contention that love schemas have a powerful impact on the formation, maintenance, and ending of romantic and sexual relationships (see Hatfield & Rapson, 1996, for a review of this research).

The Antecedents of Passionate Love

If passionate love is rooted in childhood attachments, certain types of people, caught up in certain types of situations, should be especially vulnerable to passion. Anything that makes adults feel as helpless and dependent as they were as children—anything that makes them fear separation and loss—should increase their passionate craving to merge with others. There is some evidence to support these speculations.

Low Self-Esteem

Reik (1949) was one of the first to propose that when self-esteem is threatened, individuals are more likely to fall prey to passionate love. Hatfield (1965) conducted an experiment to test the hypothesis that when self-esteem has been bruised, subjects should be unusually receptive to the love and affection offered by others. As predicted, women whose self-esteem was threatened *were* most attracted to potential romantic partners. (Other theorists have also found a link between low self-esteem and passionate love. See Bartholomew & Horowitz, 1991; Jacobs, Berscheid, & Hatfield, 1971.)

Dependency and Insecurity

A number of theorists have observed that people who are dependent and insecure (or who are caught up in affairs that promote such feelings) are especially vulnerable to passionate love. Berscheid and her associates (Fei & Berscheid, 1977) have argued that passionate love, dependency, and insecurity are tightly linked. When people are passionately in love, they are painfully aware of how dependent they are on those they love; dependency naturally breeds insecurity. In an ingenious experiment, Berscheid, Graziano, Monson, and Dermer (1976) found clear evidence in support of these contentions.

Anxiety

Numerous theorists, beginning with Freud (1910/1953), have proposed that passionate love is fueled by anxiety and fear (see also Hatfield, 1971; Hatfield & Rapson, 1987; Carlson & Hatfield, 1992.) This makes sense; passionate love and anxiety are closely related, both neuroanatomically and chemically (Kaplan, 1979; Liebowitz, 1983). Researchers have demonstrated that anxious individuals are especially prone to seek passionate love relationships (Solomon & Corbit, 1974; Peele, 1975). In a series of studies, Hatfield et al. (1989), for example, found that adolescents of European, Chinese, Japanese, Korean, and mixed ancestry who were either momentarily or habitually anxious were especially vulnerable to passionate love.

Neediness

Social psychologists have found that acute deprivation does seem to set the stage for passionate love. Stephan, Berscheid, and Hatfield (1971) tested the simple hypothesis that when people are sexually aroused, their minds wander, and soon their dazzling fantasies lend sparkle to drab reality. They proposed that when men are sexually aroused, they should have a greater tendency to see women as sex objects. Hence they should tend to exaggerate two of their dates' traits: their sexual desirability and their sexual receptivity. They found that they were right. As predicted, the more aroused the men, the more beautiful they thought their dates. In addition, the more aroused they were, the more likely they were to assume that their dates would be sexually receptive. Unaroused men judged their dates-to-be as a fairly "nice" women. Aroused men suspected that they were probably "amorous," "immoral," "promiscuous," "willing," "unwholesome," and "uninhibited."

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The Consequences of Passionate Love

The previous sections, dealing with the *roots* of passionate love, have painted a somewhat dismal picture. We have focused on the bruised self-esteem, the dependency, and the insecurity that make people hunger for love. Here we would normally point out that when people attain love (or imagine that they might), they experience intense happiness and excitement. Why would people long for love unless they enjoyed receiving it?

The Rewards of Passionate Love

Surprisingly, we have been able to find little survey or experimental research documenting the delights of passionate love; nonetheless, interviews with lovers and insights derived from works of fiction suggest that lovers may experience at least six kinds of rewards:

1. *Moments of exultation.* When love is realized, lovers may experience moments of passionate bliss. Fehr (1993) asked young men and women in Australia and the United States to list the characteristics they associated with love. People usually listed such positive characteristics as euphoria, excitement, laughing, and contentment. (Similar results were obtained by Davis & Todd, 1982; Fitness & Fletcher, 1993; and Marston, Hecht, & Robers, 1987.)
2. *Feeling understood and accepted.* When men and women are loved, they sometimes feel fully understood, loved, and accepted.
3. *Sharing a sense of union.* Lovers may feel a sense of union with their beloved.
4. *Feeling secure and safe.* Lovers may feel safe and secure when they are with someone they love.
5. *Transcendence.* When people fall in love, they are sometimes able to transcend their former limitations.
6. *Beneficial effects on the immune system.* Smith and Hoklund (1988) suspected that love is good for people. They interviewed Danish college students. Were they in love? Were their feelings reciprocated? How happy were they? How healthy? When students were in love and knew they were loved in return, they were at their best. They were self-confident, relaxed and happy, and unusually healthy, with no sore throats or colds. When technicians drew blood samples and assayed natural killer (NK) cell activity, they found that lovers' NK cell activity was unusually low. The lovers' immune systems were at full strength. On the other hand, when students were suffering the stresses of unrequited love, they were literally at risk. They reported feeling tense and depressed, and they were especially prone to sore throats and colds. Many of them had been drinking (at least they displayed the telltale signs of a hangover). More ominously, their NK cell activity was elevated—a sign that their immune systems were trying to fight off disease.

The Costs of Passionate Love

Of course, love has its costs too. When hopes are dashed or relationships fall apart, people's self-esteem is often shattered; they feel lonely and miserable (Means, 1991; Perlman & Peplau, 1981); and they may experience intense anger and jealousy (Berscheid & Fei, 1977; Clanton & Smith, 1987). Couples who have broken up or divorced are unusually vulnerable to a host of stress-induced mental and physical diseases (Bloom, White, & Asher, 1979; Stroebe & Stroebe, 1987). Should a love affair or marriage end in death, the bereaved partner generally grieves for a very long time (Beach, Sandeen, & O'Leary, 1990; Solsberry & Krupnick, 1984; Stroebe & Stroebe, 1987).

Why Is Passion So Passionate?

There are probably two main reasons why passionate love is often such an overpowering experience. First, passionate love is a basic emotion; for our ancestors, union was a life-and-death matter. Second, passionate feelings are mixed with other intense emotional experiences—joy, jealousy, loneliness, sadness, fear, and anger.

Passionate lovers generally experience a roller-coaster rush of feelings—euphoria, happiness, vulnerability, anxiety, panic, and despair. Tennov (1979) interviewed more than 500 lovers. Almost all of them reported that passionate love (which Tennov labeled "limerence") was a bittersweet experience. Researchers have found that such emotional mixtures often produce explosive reactions (see Carlson & Hatfield, 1992). Although most of us assume that we love the people we do *in spite* of the suffering they cause us, it may be that, in

part, we love them *because* of the pain they cause.

COMPANIONATE LOVE

Theorists who have tried to explain the origins of any emotion such as love have generally taken an evolutionary approach. Plutchik (1980), for one, argues that emotional "packages" are inherited, adaptive patterns of emotional experience, physiological reaction, and behavior. At every phylogenetic level, organisms face the same problems: If they are to survive and reproduce, they must find food, avoid being killed, and take advantage of reproductive opportunities. Many theorists believe that companionate love is built on the ancient circuitry evolved to ensure that mammals and primates mate, reproduce, and care for the young. In the last two decades, neuroscientists, anthropologists, and developmentalists have begun to learn more about companionate love. They have begun to study the subjective feelings, expressions, patterned physiological processes, and action tendencies associated with this form of love's ancient heritage.

The Chemistry of Companionate Love

Neuroscientists still know very little about the biological bases of companionate love and tenderness. However, neuroscientists have identified a hormone, oxytocin, which seems to promote affectionate, close, intimate bonds (Caldwell, Jirikowski, Greer, & Pedersen, 1989) and sexual and reproductive behavior (Pedersen, Caldwell, Jirikowski, & Insel, 1991). Carter, a zoologist (quoted in Angier, 1991), observes: "It [oxytocin] facilitates tactile contact between animals, and that's an early step in the development of social attachment" (p. B8). Oxytocin also promotes more intense bonds between mothers and infants; it increases mothers' eagerness to nurture their young. Finally, oxytocin appears to increase contact between same-sex pairs as well (Angier, 1991, p. B8).

The Look, Posture, Sounds, and Behaviors of Companionate Love

Some theorists have argued that love's ancient beginnings can be read today in the looks, postures, sounds, and behaviors of companionate love.

The Look of Love

Emotions researchers have found that the universal emotions—joy, love, sadness, fear, and anger—are associated with certain characteristic facial expressions. In some research, scientists have tried to pinpoint the facial expressions associated with joy and love. For example, Hatfield, Costello, Schalekamp, Hsee, and Denney (cited in Hatfield, Cacioppo, & Rapson, 1994) found that people were able to distinguish facial expressions of love from expressions of joy, sadness, fear, and anger. Exactly how the subjects did this is not yet known. The authors have speculated that perhaps when men and women are experiencing companionate love, they take on the expression mothers often instinctively display when they are happily, tenderly gazing at their young infants: They gaze downward (at the infants), their faces soften, and a slight, tender smile plays about their lips. (Bloch, Orthous, & Santibañez-H., 1987, have proposed the same hypothesis; they provide some suggestive evidence in support of this contention.)

The Posture of Love

Morris (1971) observes:

> These, then, are our first real experiences of life—floating in a warm fluid, curling inside a total embrace, swaying to the undulations of the moving body and hearing the beat of the pulsing heart. Our prolonged exposure to these sensations in the absence of other, competing stimuli leaves a lasting impression on our brains, an impression that spells security, comfort and passivity (p. 12)

After birth, Morris contends, mothers instinctively try to recreate the security of the womb. Mothers kiss, caress, fondle, and embrace their infants; they cradle them in their arms. In the womb, neonates hear the steady drumbeat of their mothers' hearts beating at 72 beats per minute. After birth, mothers instinctively hold their babies with their heads pressed against their left breasts, closest to their hearts. When their infants fret, mothers unconsciously rock them at a rate of between 60 and 70 rocks per minute, the rate that is most calming to infants. Morris points out: "It appears as if this

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rhythm, whether heard or felt, is the vital comforter, reminding the baby vividly of the lost paradise of the womb" (1971, p. 14). Of course, in adulthood, these same kisses, tender caresses, and embraces continue to provide security for men and women—who are unconscious of the early origins of these behaviors.

The Sounds of Love

French psychophysiologist Bloch and her colleagues (1987) argue that not just joy, but passionate love ("eroticism") and companionate love ("tenderness"), are associated with different breathing patterns and sounds. Mothers often coo or croon softly with their mouths held near their infants' heads. Bloch et al. have speculated that such tender maternal sounds become the forerunners of the breathing patterns and sounds associated with love. They studied the basic emotions and discovered that the breathing patterns associated with eroticism and tenderness were somewhat different:

> In *eroticism,* the principal feature of sexual activation is an even breathing pattern which increases in frequency and amplitude depending on the intensity of the emotional engagement; inspiration occurs through a relaxed open mouth. The face muscles are relaxed, and the eyes are closed or semi-closed. In the female version of the erotic pattern, the head is tilted backwards, and the neck is exposed. (p. 6)

On the other hand, in tenderness,

> The breathing pattern is of low frequency with an even and regular rhythm; the mouth is semi-closed, the relaxed lips forming a slight smile. Facial and antigravitational muscles are very relaxed, eyes are open and relaxed, and the head is slightly tilted to the side. The postural attitude is one of approach. Vocalization includes a humming type lullaby sound. (p. 6)

Behavioral Indicators of Love

Finally, anthropologist Eibl-Eibesfeldt (1971), in *Love and Hate,* observes that primate mothers and infants reveal their close bonds in certain characteristic behaviors. In infancy, human mothers and their infants express their feelings for one another in much the same way. And in adulthood, men and women in all cultures cannot help showing their companionate love in the same ways they did as infants. For instance, newborn infants rhythmically rotate their heads from side to side as they root for their mothers' nipples. An adult, playfully nuzzling a loved one, often finds him- or herself using motions, gestures, and rhythms from the distant past—holding the loved one's head in his or her hands, or rubbing his or her lips against the loved one's cheek with a sideways movement of the head. Eibl-Eibesfeldt graphically illustrates the kissing, mutual feeding, and embracing that bond people together.

Parent–Child Coordination

Mothers and fathers differ in how well attuned they are to their infants' rhythms. Usually both mother and child are in control of their interaction. The baby's needs must shape the general structure in which the interaction occurs; the mother then has the opportunity to regulate the tempo of the interaction. If she speeds up, she will reduce the baby's level of communication; if she slows down, she can expect a higher level of communication and engagement (Stern, 1974).

Sometimes parents are not able to shape themselves to their infants' needs. When an infant turns his or her head, needing to cut down the level of stimulation that it is receiving, a young mother may panic: "The child doesn't like me. What did I do wrong?" She may intrusively force herself on the baby, looking for reassurance, but overwhelming the infant still further. A father, in an effort to play, may frighten a child with too much noise and movement. Or the parents may give the infant too little attention. They may be bored, uninterested, or distracted. They both may be exhausted from trying to keep house and from their careers outside the home. Generally, infants respond to such lack of interest by trying to rouse their caretakers. If that proves to be impossible, they eventually withdraw completely. We might expect such parental intrusion or indifference to have a profound impact upon children's strategies for dealing with their subsequent love relationships. Such experiences may well shape their eagerness and willingness to get close to others, as well as their ability to balance closeness and distance, intimacy and independence.

CONCLUSIONS

In sum, then, researchers have proposed that both passionate and companionate love can be

understood, in part, by examining the mother–child attachment experiences on which they are based. Researchers interested in passionate love have tended to focus on infants' attachments to their mothers as the prototype of later passionate attachments; researchers interested in companionate love have tended to focus on parental attachments to their infants as the prototype of companionate attachments. Of course, love relationships can involve both passionate and companionate love. In this chapter, we have reviewed research in support of these contentions.

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