

## **Love**

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Many have sought to understand the mystifying concept of love including psychologists, philosophers, and theologians. Most research on love focuses on the early bonding between a mother and her infant, and uses this as the exemplar for how any love relationship is formed and maintained throughout the life span. Early in development, the first understanding of love is gathered through the warm connections, nurture and affection experienced through the interaction between the child and parents or caregivers. Many theorists have suggested that the type and success of this early interaction informs how future emotional bonds and relationships are molded throughout the lifespan.

The bonding that occurs in early stages of development is important in terms of survival, safety, comfort and security and it is important during times of danger and stress. Furthermore, other species also exhibit similar bonding behaviors that can be associated with love. Thus, feelings of love stem from an evolutionarily adaptive process and ultimately offer a sense of physical and psychological protection and well-being. One main hypothesis of love suggests that this process encompasses a combination of three innate behavioral systems which include attachment, caregiving behaviors, and sex. Each of these systems stems from an important evolutionary function which motivates the process of pursuing and maintaining love attachments. As such, love is often considered to be a dynamic process that involves the capacity for attachment, caregiving, and sex and relates to the fulfillment of evolutionary needs.

Many researchers strive to understand the concept of love by focusing on development and utilizing attachment theory. Despite this large focus on early attachment bonds, maternal or

caregiver love is not the sole form of love that is experienced throughout the lifetime. Recent theorists have suggested many different forms of love and focus on different aspects of love. For example, many emphasize defining what love is not such as understanding the differences between like and love, or understanding the different types of love such as passionate and companionate love. Many models have suggested that there are a variety of types of love that range in level of intimacy, passion, and commitment that is based on amount of trust, warmth and closeness that is felt.

Love has also been theorized and understood through a biological and chemical lens. During the experience of love, the underlying force of attraction and desire to pursue love is motivated by changes that happen within the brain. Researchers have recently discovered different chemical components that are associated with the process of love. They propose that testosterone may be one of the chemicals associated with an initial step in the process of love called lust. Lust consists of strong feelings of desire for someone and is strongly related to the amount of testosterone released in the brain.

Previous studies have suggested that both males and females have increased levels of testosterone when they are initially attracted to another individual. Researchers further proposes that dopamine and norepinephrine are involved in the motivation behind the more romantic form of love. Increased levels of dopamine and norepinephrine in response to a new relationship result in excitement and elation. The chemical dopamine works by motivating an individual to pursue and maintain a relationship with a satisfying partner. Norepinephrine results in the sudden increase of excitement and nervousness that occurs during a new relationship and also provides motivation to pursue the relationship. When these feelings of excitement, elation, and motivation towards a relationship are experienced by an individual or a couple, levels of dopamine and

epinephrine in the brain are increased. These chemical changes in the brain also results in physical symptoms associated with love such as an increased heart rate, blushing skin, butterflies in the stomach, and sweaty palms.

Affectionate behaviors that are associated with love such as touching, hugging, holding, or kissing also cause changes to occur in the brain. These behaviors activate the limbic system and result in an increase of vasopressin and oxytocin. Vasopressin is associated with stronger connections and bonds between people while oxytocin has been considered the love hormone that also helps foster feelings of closeness. Oxytocin is also the chemical that is involved in the attachment process that motivates people to be in a committed relationship and to further develop more comfort that promotes the preservation of love. These chemicals are also released especially in the phase of development when mothers are caring for newborns in order to create a stronger bond between them.

Thus, love is a complex idea with many underlying theories as to why and how it occurs throughout development. It is highly related to the attachment process that occurs in infancy with caregivers which molds the way in which individuals may form bonds in their lifespan. Furthermore, love and bonding is an evolutionarily adaptive process that takes place within the brain. Love promotes our physical, psychological well-being and furthers our development and aids in reproduction that ultimately maintains the dynamic process of life.

### **Further Reading**

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