LOVE: A PASSION OF THE SOUL, AN OBSESSION, OR AN EVOLUTIONARY DISPOSITION?

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ABSTRACT

What is love? Sung by poets and musicians, the cause of the greatest joys and sorrows, love is difficult to define. In this text, I will present some ways of understanding love, beginning with the tradition of thinking of love as a passion of the soul. Second, I will present the physiological conception of love as advocated in the book Love is the Drug. I will also consider a third way in which love is related to evolutionary strategies.

Keywords: love, passion of the soul, obsessive disorder, evolutionary disposition.

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Love as a passion of the soul

Descartes tells us of love as one of the passions of the soul, which are modes of substantial union between body and mind. In other words, although the res extensa and the res cogitans, our body and our thinking self, can be conceived separately according to their predicates of extension and thought, there is a union of these substances that actually forms the human being. The passions are then not only thoughts, but also include bodily movements and emotions.

When he speaks of love, he describes the relationship between this emotion and the vital organs, mediated through the path of “animal spirits”, rarefied substances that correspond to what we now call neurochemical impulses.

These observations, and so many others which would be too long to describe, have led me to believe that when the mind represents itself as an object of love, the impression which this thought makes on the brain leads the animal spirits, through the nerves of the sixth pair, to the muscles surrounding the intestines and the stomach, so that the juice of the flesh, which has been transformed into new blood, passes rapidly to the heart without stopping at the liver. Since it is carried to the heart with greater force than the blood that is in other parts of the body, it penetrates there in greater abundance and excites greater heat, since it is thicker than the blood that has already been rarefied several times as it passes and returns to the heart. This causes it to send spirits to the brain, spirits whose parts are thicker and more agitated than normal, and these spirits, reinforcing the impression made by the first thought of the loved object, force the soul to dwell on that thought, and this is what the passion of love consists of (Descartes, Passions of the Soul, art. 102).

Descartes' description of the passion of love shows that the lover dwells on the thought of the beloved, but beyond that, passion is a disposition to action. The one who is affected by the passion of love tends to unite with the beloved. This is why the separation of lovers causes so much suffering.

If the passion of love can lead to pleasure and amorous ecstasy, it can also be responsible for the suffering caused by unreason. Seneca's play Phaedra shows us the turmoil, pain and agony of the main character who falls madly in love with Hippolytus, her stepson.

Seneca shows us a portrait of Cupid that is more dangerous than the Eros of the banquet. In Plato's work, Diotima teaches us that Eros was conceived on Aphrodite's birthday and that he was the son of Penia (poverty) and Poros (wisdom). We can already see there the humiliation and the pleas that those who love address to those who are loved, because
“having inherited his mother's nature, he wanders at the gates, lost in the streets, a tenant of misery” (The Banquet, 204b; Plato, 2008, p.95). Diotima's Cupid is also as clever as her father Poros and is always thinking of stratagems to win over his beloved. In the midst of stratagems and entreaties, little Eros caused some damage, but he wasn’t a foolish god, even if he could have fun with his arrows at the expense of distracted humans.

For Seneca, Cupid, the Roman version of Eros, was not so harmless, and his damage to the one he loves goes far beyond the humiliation of his pleas. This is how Fedra's nurse describes him in the play of the same name:

Let love be a god, the lazy libido that favors vice  
He invented it to make it freer,  
He gave his madness the false pretense of divinity.  
Erichena undoubtedly sends her son wandering  
Through all the lands, and he, flying through the sky,  
Shoots lascivious arrows with his delicate hand  
And of all the gods, the youngest, he possesses such a kingdom... (Fedra, 195, 200).  
(Sêneca, 2007, p. 35)

Cupid represents the inert libido, the lasciviousness that has become a god. He shoots his arrows freely and sets fire to people who are incapable of following reason.

An important aspect of the passion of erotic love is the inability of the lover to do what he decides. Here, choice is worthless because the agent is driven to action. The nurse reminds Phaedra of the monstrosity of her mother's love for the sacred bull and suggests that this monstrosity is also manifested in her forbidden love for her stepson. Fedra agrees with Nurse's warnings, but feels powerless to resist Cupid's designs.

Fedra:

What you remember,  
I know it's true, nurse, but passion forces me  
to follow the worst. Consciously, my mind marches toward the abyss,  
and vainly tries to return in search of sane counsel.  
In the same way, when the navigator throws the heavy boat  
against the adverse wave, his efforts give way in vain  
And, overwhelmed, the stern is swept away by the steep current.  
What can reason do? Fury has won and rules  
And a mighty god rules my whole soul. (Fedra, 177-185).  
(Sêneca, 2007, p. 35)
Love is a drug

In the book Love is the drug, written by Savulescu and Earp, from to the Uehiro Centre for Practical Ethics at the University of Oxford, the possibility of using chemical substances to both produce and extinguish the passion of love is investigated. This intervention, according to the authors, is based on a series of evidences of the chemical brain alterations suffered by human beings when they love. One of the peculiar behaviors of those who have suffered a disappointment in love is, after the healing period, to return to the love that made them suffer. What is the reason for this movement? Some thinkers have pointed out that the behavior of those in love is similar to that of drug addicts. John Elster, in his book Strong Feelings, Emotion, Addiction and Human Behaviour (Elster, 2000) was one of the first to link intense emotions and addiction, stating that the minds of people in love work like those of drug addicts, and that their love addiction is based on neurotransmitters. For this reason, those addicted to love find it difficult to separate from the person they love, no matter how reprehensible or impossible their passion may be.

The researchers at the Uehiro Centre agree with Elster that love is a drug. When she falls in love with Hippolito, Fedra admits that she is as powerless over her amorous impulses as her mother was when she fell in love with the golden bull. Both mother and daughter felt the madness of an uncontrollable and irrational love. Both would fall prey to a trap of the heart that today's science explains in terms of brain physiology.

One of the experiments suggesting a neurochemical change in the brains of lovers was conducted by anthropologist and biologist Helen Fisher, as reported in the book Why we Love, The Nature and Chemistry of Romantic Love. The lovers were recruited at the State University of New York (SUNY) with the call “Have you just fallen madly in love?” They were selected based on certain criteria, including not being depressed. Once selected, they underwent a functional magnetic resonance imaging scan to see if there were areas of the brain that were more affected by the passion of love. The scan showed an increase in blood flow in a specific area, the brain's reward center. It also confirmed the hypothesis that several
neurotransmitters are associated with the passion of love: there is an increase in dopamine and norepinephrine and a decrease in serotonin.

Dopamine is responsible for energy and focus on your loved one. It also makes you feel good and often suppresses hunger and sleep. Low serotonin, however, causes compulsive and obsessive behavior. When love is frustrated, either by unrequited love or by a breakup, the psychological pain is the result of reduced pleasure due to the lack of dopamine, combined with the often constant thought of the loved one, even when the desire is to forget.

Savulescu and Earp explain that we have three different mental systems that are part of romantic love: desire, attraction and attachment: “Men and women can copulate with individuals with whom they are not in love, they can be in love with someone with whom they do not have a sexual relationship, and they can be deeply attached to someone for whom they have no sexual desire or romantic passion” (Earp, Savulescu, 2020, p. 125).

**An obsessive-compulsive disorder?**

Is it possible to imagine a chemical form that acts as an anti-attraction drug? The authors of *Love is the Drug* refer to the experiment of the neuroscientist Danatella Marazziti, according to which the obsession of lovers, especially in the first moments of romance, is similar to obsessive-compulsive disorder, with the same low levels of serotonin. The authors suggest that the same treatment used for this pathology could be used to reduce the obsessive aspects of a love relationship. The treatment used would be based on selective serotonin reuptake inhibitors (SSRIs), which would probably have an emotional blunting effect on the intense feelings involved in romantic passion, since most patients treated with these drugs for depression or obsessive-compulsive disorder “report a reduced ability to cry, worry, get angry or care about the feelings of others” (Earp, Savulescu, p. 129).

In terms of attachment and bonding, there is the possibility of using drugs that block oxytocin and dopamine. Although no studies have been done in humans for ethical reasons, the authors report that studies have been done in mammals that are close to humans in their mating behavior, in this case prairie voles. In one study, when these animals were injected with oxytocin or dopamine blockers, they lost their monogamous tendency and no longer bonded with the female they copulated with, as they had previously tended to do.
Although there have been no human studies of such oxytocin or dopamine blockers, the authors claim that alcohol is a drug that can promote promiscuous sex. When tested on prairie voles, alcohol curiously made the males promiscuous and prevented them from bonding, while the opposite was true for the females. There is still no evidence that this happens in humans.

Earp and Savulescu suggest that, in the near future, all these experiments could be used to develop pharmacological strategies to reduce or block attraction, passion and romantic attachment. We would not be far from being able to extinguish passion, or at least reduce its intensity.

**Love as a temporary madness**

The drugs proposed by Earp and Savulescu in Love is the Drug refer to the idea of a disorder for which a cure is sought. Could love be a disease, a temporary insanity? Here we can recall Kant and his conception of affections and passions as diseases of the mind. Although the philosopher included a range of emotions in the concepts of affection and passion, the idea of love as a disease is echoed here:

> To be subject to affections and passions is always a disease of the mind, because both exclude the rule of reason. Both are also violent to a certain extent, but as far as their quality is concerned, they are essentially different, both in the method of prevention and in the method of cure to be used by doctors (Anth, AA 7: 251).

To explain the difference between the disease of affection and that of passion, Kant gives examples of physical diseases, such as an epileptic seizure, a headache, or intoxication resulting from the consumption of alcoholic beverages or poisons:

> Affection affects health like an epileptic fit; passion like a tisic or a wasting away. Affection is like drunkenness, which can be cured by sleeping, but which then gives you a headache; passion is like an illness caused by ingesting poison, or like atrophy (Anth, AA 7:252).

Love as affection resembles a temporary blindness, an inability to perceive reality, including the faults of the loved one. The adagio “Love is blind” is interpreted by Kant as a temporary blindness: “The person in love is blind to the faults of the object of love, even if he regains his sight a week after the wedding” (Anth, AA 7:253).
Could affectionate love turn into passionate love? Affectionate love would not turn into passion unless it was never satisfied by physical pleasure. In that case, love could take on the obsessive aspect of other passions, such as ambition. And if someone goes mad from love, it’s because he was already disturbed by the choice of an impossible goal.

When analyzing mental illness, Kant says that people say that “he went mad with love”, but the fact is that he was already mad: “Falling in love with a person of a class for whom waiting for marriage is the greatest folly was not the cause but the effect of madness” (Anh, AA 7: 217). This example is analyzed in the section on mental illness. Although the relationship between love as passion and mental illness was very vague, Kant's idea is not far from the discovery of a neurochemical instability in love, which is in line with the references made by Earp and Savulescu. This temporary insanity echoes the aforementioned findings of the Italian neuroscientist Donatella Marazziti on the low levels of serotonin in love, which are compatible with obsessive-compulsive disorder.

Why are we prone to these obsessive-compulsive passions? Is there something in our nature as human primates that drives us to this “temporary madness”?

**Love as an evolutionary strategy**

Is love a human thing, or do animals love too? According to Karen Fisher, animals also display behaviours typical of romantic love. Analysing the behaviour of foxes, she says: “The excessive energy, focused attention, dogged pursuit and all the tender licking and biting that foxes do to each other are certainly reminiscent of human romantic love. And foxes are just one of many species that show aspects of romance” (Fisher, 2004, p 26).

Darwin, in The expression of the emotions in man and animals, also admits that animals feel a certain attraction that leads to sexual interaction. He goes further and states that animals fall in love and that higher animals share similar emotions and passions with humans, even the more complex ones such as jealousy, mistrust, emulation, gratitude, and magnanimity (Darwin, 1872 *apud* Fisher, 2004, p. 26). Although many scientists admit that animals have emotions close to those of humans, few would accept that love is one of them.

Karen Fisher describes the mating process in various animals and finds some elements that are part of romantic love. In relation to elephants, she describes the coming together of the female elephant, Tia, and the elephant, Bad Bull, showing that it wasn’t just a completely
irrational instinct, but that there was a choice of partner, a joy at being reciprocated, and an intense energy similar to the states of human infatuation. Could there be love between these two elephants? Or a temporary crush? Fisher replies: “Tia and Bad Bull were totally focused on each other. Both exhibited intense energy. Neither ate nor slept as regularly as the elephants. And they touched each other and ‘talked’ in a low, soft, long, resonant voice” (Fisher, 2004, p. 29).

The author describes the characteristics of attraction in other species, pointing out that in some, such as beavers, attraction and mating are independent of the fertility of the female. Again, the question: is it love? Fisher suggests an affirmative answer: “There are so many descriptions of attraction between animals that it’s impossible to count them all. I’ve read about the love lives of a few hundred different species, and in all animal societies, courting males and females display traits that are central components of human romantic love” (Fisher, 2004, p. 31). These traits would be intense energy, persistence, nervousness, and some signs of tenderness. In higher primates such as chimpanzees, these signs of tenderness, which include kissing, can be seen: “Chimpanzees hug, pat, and kiss each other’s thighs and bellies. They even kiss each other with the deep ‘French kiss’, in which they gently insert their tongue into the mouth of a mating partner” (Fisher, 2004, p. 37).

Another important sign would be the choice of a specific partner, which seems to be the case here. According to the author, this is an essential characteristic of romantic love, because we don’t fall in love with just any partner, but with a specific one: “Of all the characteristics of human romantic love exhibited by other creatures, perhaps none is more revealing than choice. Just as you and I are unwilling to jump into bed with anyone who winks at us, no other creature on this planet spends precious time and energy mating indiscriminately” (Fisher, 2004, p. 39).

The aspects analyzed in the relationship between the animals, such as energy directed towards a focus, euphoria, persistence, strong desire, lack of sleep and appetite, are characteristics of dopamine and norepinephrine, which are present in the mammalian brain. This can be seen in the behavior of female laboratory rats:

Laboratory rats express their amorous intentions by jumping and being bold, behaviors associated with elevated levels of dopamine. In prairie voles, small creatures very similar to field mice, high levels of dopamine in the brain are directly linked to a preference for a particular mating partner (Fisher, 2004, p. 47).
This preference for one partner over another is one of the characteristics of human love. Wouldn't human love be different from so-called animal love? There are two major differences. Humans have developed language, which has taken conquest to a new level. How many love poems have been written to seduce and woo the beloved? Human romantic love would be an evolution of animal love, with a longer duration. If the attraction between animals can be very brief, human romantic love is more concentrated on a single individual for a longer period of time.

The evolutionary hypothesis for the development of this type of passion, according to Fisher, can be found in the transition of our ancestors from creatures that lived in trees to creatures that walked on the ground. Females, who could carry their young on their backs, now walked on two feet and had to hold their young with their hands. In this context, she needs a man to protect her. For men, monogamous love is a consequence of being able to care for and protect only one woman and her offspring. Fisher notes that “when our ancestors adopted life on the plains, pair bonding became imperative for females and practical for males. And monogamy, the human habit of pair bonding with only one individual at a time, evolved” (Fisher, 2004, p. 130). Therefore, the human tendency would be to fall in love and form successive monogamous relationships.

Is it possible to forget a love?

Whether it's a passion of the soul, a temporary madness or an evolutionary strategy, love is responsible for our delirium and ecstasy, but also for our pain. And this pain is linked to the memory of a love that didn't work out and ended. Is it possible to forget love?

In the movie Eternal Sunshine of the Spotless Mind, Clementine hires a company to erase the memories of her relationship with her lover. When he hears about it, he thinks about doing the same thing, but can't make up his mind. Who among us, after experiencing the pain of love, wouldn't want to erase all memories of our romance and of the existence of the one we love? Wouldn't a mind without memories give us comfort and finally relief and peace? It is not without reason that the movie quotes Alexander Pope's poem about the tragic love of Abelard and Heloisa. The quoted part refers to her renunciation of the outside world and entry into the convent:

How happy is the blameless vestal lot!  
The world forgotten, by the world forgot  
Eternal Sunshine of the spotless mind  
Each pray accepted, and each wish resigned
But who would be willing to give up loving ecstasy, even if it can cause so much pain? And is the possibility of forgetfulness in our power? Whether it’s a passion of the soul, a delirium caused by unbalanced neurotransmitters, or the remnants of our animal side, extinguishing the feeling of love through reason – or even drugs – is still far from a real possibility.

**Bibliographical references**


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Holds a master's degree in Philosophy from the Federal University of Rio Grande do Sul (1990) and a doctorate in Philosophy from the same university (1996). Currently, they are a Full Professor at the Federal University of Santa Catarina. They completed postdoctoral research at the University of Pennsylvania (1999), Humboldt Universität (2006), and Columbia University (2014). Their expertise lies in the field of Philosophy, with a primary focus on topics such as Kant, Hegel, ethics, emotions, and feminist philosophy.

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