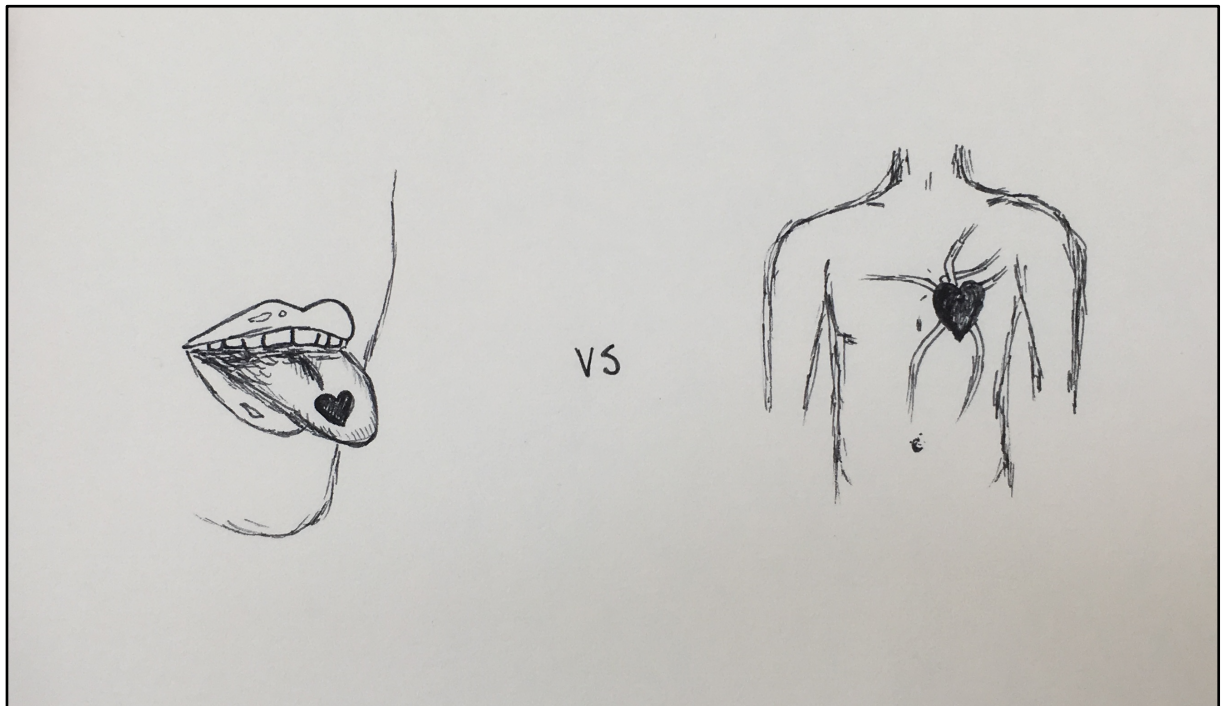


Loving on Drugs or from the Heart

Thesis on the Love Enhancement Debate



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Index

Acknowledgments	5
Abstract	6
Introduction	7
1 What Is Love Enhancement?	12
1.1 Why Love Enhancement?	13
1.1.1 <i>Selfish Genes</i>	13
1.1.2 <i>Human Values and Context</i>	14
1.2 How Should Love Be Enhancement?	16
1.2.1 <i>Biological Account of Love</i>	16
1.2.2 <i>Love-enhancing Techniques</i>	18
1.3 What Is the Aim of Love Enhancement?	19
2 What Ought Love to Be?	23
2.1 The Conception of ‘Technological Controlling Romantic Love’	24
2.1.1 <i>Conception of Long-lasting Romantic Loving Monogamous Relationships</i>	25
2.1.2 <i>Technologically Controlling Love</i>	27
2.1.3 <i>The Inconsistency</i>	29
2.2 A Narrow vs Broad Conception of Love	30
2.2.1 <i>Instrumental vs Intrinsic Value of Love</i>	30
2.2.2 <i>The Internal Disposition of Loving</i>	34
2.3 Conclusion	35
3 Are the means desirable?	37
3.1 Facilitating or Determining?	38
3.1.1 <i>Love Potion or Love Facilitator</i>	38
3.1.2 <i>An Autonomous Act?</i>	40
3.2 Enhancing Love, Stimulating Addiction?	44

3.2.1	<i>Addicted To Falling and Being in Love</i>	44
3.2.2	<i>Limiting Autonomy?</i>	47
3.3	Conclusion	49
4	Should We Medicalize Love?	51
4.1	The medicalization of Love	52
4.1.1	<i>Medical Context of Love Enhancement</i>	52
4.1.2	<i>The Negative Effects of Medicalization</i>	54
4.1.3	<i>The Complexity Objection</i>	55
4.2	The Aim to Increase Wellbeing	56
4.2.1	<i>The Capability Approach</i>	57
4.2.2	<i>Cultivating the Internal Disposition of Loving</i>	59
4.3	Conclusion	61
	Conclusion	63
	Bibliography	66

Acknowledgments

I would like to thank my supervisor Ineke Bolt for her feedback and mental support during the process of writing this thesis. Furthermore, I want to thank Mark Wiering for giving comments on my thesis and Froukje van Baren, Isha van Halem and Sofie Lindeman for checking English grammar and vocabulary. My thanks also goes to everyone who has listened to my enthusiasm about the topic of my thesis and my complaints about how difficult writing a thesis sometimes can be. Special thanks goes to my boyfriend, Isha, who has provided me a personal reflection on what it means to experience feelings of falling and being in love. Lastly, my thanks goes to my second examiner, Hafez Ismaili M'Hamdi.

Abstract

Nowadays, monogamous relationships seem to have an expiration date. Separation between partners is more omnipresent than it used to be and this influences the experience of wellbeing of the involved partners and children. The proposal of love enhancement suggests that this issue could be counteracted by the use of love-enhancing techniques. These techniques could bring back and maintain the feelings of love and accordingly repair relationships. In this thesis, I analyze whether it is morally desirable to use love-enhancing techniques in a medical context in order to solve the separation-issue and eventually increase wellbeing. It is argued that the proposal of love enhancement misses out on the most important aspect of love; the internal disposition of the ability to love. Instead of externally influencing the initial feelings of ‘falling and being in love’, love is most desirably cultivated from within. This argument is developed by analyzing if the proponents’ conception of love is morally desirable, if the proposed means of love enhancement are desirable and if the proposed approach is most desirably applied when the aim is to increase wellbeing. The conclusion of this thesis is that when the aim is to increase wellbeing, it is more morally desirable to respect people’s ability to act autonomous, their ability to reflect upon the reasons to love and to respect the complexity and subjectivity of situations.

Introduction

I want no other, no other lover

This is our life, our time

When we are together, I need you forever

Is it love?

What is love?

Baby, don't hurt me

Don't hurt me no more

- Nestor Alexander Haddaway (1992)

What is love? Many romantic movies show us that love is a romantic experience between two people who, after surviving the struggles of love, end up in an everlasting monogamous relationship. The normal state of affairs in western society seems to be that adolescents fall in love with each other, for example, when they are in college. When love survives the two adults get married and have children. And they live happily ever after...

But reality shows a different story. Despite this romantic ideal of an everlasting monogamous relationship, many cases show that it is hardly attainable. Recent research shows that nowadays relationships end earlier than before.¹ The reason for this development is that love nowadays is seen as the most important indicator for a good relationship.² If love fades, people are more likely to end their relationship than previously. Unfortunately, the trend towards separation has a negative influence on the lives of the partners involved and the children that are born. So, how should we respond to this threat?

¹ ONS. *Population trends*. London: Office of National Statistics (2004).

² Pinsof, W.M. 2002. The death of "till death us do part": the transformation of pair-bonding in the 20th century. *Family Process* 41: 135–157.

According to Julian Savulescu, Anderson Sandberg and Brian Earp³ we should enhance love by using technological means in order to counteract the negative influences of separation. The proponents argue that the decrease of love has a biological origin. Because our genes want to ensure their survival, they want us to procreate with as many people as possible. This evolutionary mechanism is argued to be responsible for the expiration date of love and accordingly for adultery and serial monogamous relationships.^{4,5} Historically, marriages used to last longer but love was not always part of the relationship – and if it was, there were many indications that it often diminished over time.

In light of the negative influence separation has on the experience of wellbeing, the proponents argue that we should use love-enhancing techniques to free ourselves from the biological limitations of love.⁶ A nasal spray with the love-hormone Oxytocin, (other) medicines as well as gene-therapies are proposed to help those who experience love-problems.⁷ Oxytocin could enable partners to love each other again.⁸ Simultaneously, the proponents suggest that these love-enhancing techniques should be given and supervised by a psychiatrist, in order to prevent misuse. These techniques could support regular forms of couples' therapy.⁹ Love enhancement would enable a longer lasting love which would counteract the separation-trend. So, why would we stay slaves of our biological drives if we could have the technology to strengthen our love life and increase our wellbeing?

The love enhancement debate is rooted in the human enhancement debate. Human enhancement is defined by Maartje Schermer as the practice of improving human capacities, such as morality and cognition.¹⁰ The proponents of enhancement technology argue that human beings are biologically limited to act morally and rationally.¹¹ Because of this limitation we should

³ In the following sections, I refer to these authors as 'the proponents of love enhancement' or 'proponents', because the three academics have introduced the possibility of love enhancement and are the strongest advocates of using love-enhancing techniques.

⁴ Julian Savulescu and Anders Sandberg, "Neuroenhancement of love and marriage: The chemicals between us", *Neuroethics* 1, no.1 (2008): 31-33.

⁵ Brian D. Earp, "Love and other drugs", *Philosophy Now* 91, 2012: 14-17.

⁶ Savulescu, "Neuroenhancement of love and marriage", 41-42.

⁷ Julian Savulescu and Anders Sandberg. "Can we engineer love?". *New Scientist* 214, no. 2864 (2012): 28-29.

⁸ Savulescu, "Neuroenhancement of love and marriage", 35-37.

⁹ Brian D. Earp, Anders Sandberg, and Julian Savulescu, "Natural selection, childrearing, and the ethics of marriage (and divorce): Building a case for the neuroenhancement of human relationships", *Philosophy & Technology* 25, no.4 (2012): 561-587.

¹⁰ Maartje Schermer, "Van genezen naar verbeteren?", *oratiereeks Erasmus MC* (2012): 8.

¹¹ Ingmar Persson and Julian Savulescu, "The perils of cognitive enhancement and the urgent imperative to enhance the moral character of humanity", *Journal of Applied Philosophy* 25, no.3 (2008): 162-177.

biologically enhance humans in order to create a more humane society. The technological means to achieve this goal vary between medication, genome-editing and gene therapy. In line with this argumentation, Savulescu, Sandberg and Earp suggest that we should also use love-enhancing techniques to improve the human capacity to love.¹²

This optimistic view on the possibilities of love enhancement to increase the experience of wellbeing seems very attractive. Who does not want to experience the same amount of love as one felt in the first years of a relationship? If we just have to take a nasal spray, why should we not? Nevertheless, presumed that the proposal of love enhancement is able to counteract the separation-trend, there is something intuitively problematic about the proposal to use love-enhancing techniques to increase love. For, the experience of love is intuitively and normally seen as something that cannot be improved with drugs or other techniques.¹³ In this thesis, I therefore reflect on the following question: is it morally desirable to use love-enhancing techniques in a medical context when the aim is to increase the experience of wellbeing? In order to find out whether love enhancement is morally desirable, the aim of this thesis is to give a comprehensive analysis of the implications of love-enhancing techniques on the experience of love.

To do so, I will raise three questions. Firstly, it is asked whether the proponents' conception of love is a desirable conception. The second question is: are the proposed means desirable? In the third question is: when the aim is to increase wellbeing is the proposed approach desirable? It will be argued that the use of the proposed love-enhancing techniques misses out on an important aspect of love. That is, the internal disposition of the ability to love. Throughout this thesis, I argue that love-enhancing techniques are not desirable. When the aim is to increase wellbeing, people's ability to act autonomous, their ability to reflect upon the reasons to love and the complexity and subjectivity of situations, needs to be respected.

In order to develop this argument, the theoretical proposal of love enhancement will be inquired in chapter 1. This will be done by unravelling the line of reasoning that is in favor of love enhancement. The proponents argue that there is a discrepancy between the 'desires' of selfish genes and the desire of humans to be happy, because our genes have other aims than we

¹² Savulescu, "Neuroenhancement of love and marriage", 31-44.

¹³ Sven Nyholm, "Love troubles: Human attachment and biomedical enhancements", *Journal of Applied Philosophy* 32, no.2 (2015): 190-202.

ourselves might have. Love-enhancing techniques can counteract this biological limitation. In chapter 2, I identify the underlying conception of ‘what love is and ought to be’ in the proposal of love enhancement. The proponents have a conception of a long-lasting romantic loving monogamous relationship, that is most desirably controlled with technological means when this conception is in danger. It is questioned whether this conception is desirable in light of the intrinsic value of love. In contrast, I argue that a broader conception of ‘what love is and ought to be’, that includes the intrinsic value, is more desirable. This broader conception aims at cultivating the ability to love, which Erich Fromm has proposed in his book *the art of loving*.¹⁴ In chapter 3, I analyze the proponents’ argument that love-enhancing techniques function as a love facilitator instead of a love potion. That is to say, that love-enhancing techniques have a facilitating role in the cultivation of the ability to love, instead of a determining role. On this account it would not be problematic to enhance love with technological means, for the ability to autonomously love is not in danger. In response to this defense, it is analyzed whether love-enhancing techniques are able to safeguard this autonomy in both cases. I argue that in light of the addictive forces of ‘falling and being in love’ it is not desirable to enhance love. Finally, in chapter 4, it is inquired whether the medical approach of love enhancement is a desirable approach when the aim is to increase wellbeing. The proponents argue that in light of wellbeing it is desirable to treat love with medical interventions. The objection to this kind of medicalization is that the complexity and subjectivity of human beings is disregarded. In reaction to this objection, the proponents have argued that the desirability of the specific intervention is of secondary importance. Rather, the desirability of love enhancement depends on whether it increases wellbeing. I argue that when the aim is to increase wellbeing, it is more morally desirable to respect people’s ability to act autonomously, their ability to reflect upon the reasons to love and to respect the complexity and subjectivity of situations.

In this regard, it is important to point out that throughout this thesis I do not question if love-enhancing techniques are able to influence the biological aspects of love. I follow the proposal that it will be possible to influence love on a hormonal and genetic level. In line with the focus the love enhancement debate has on the improvement of monogamous relationships, I concentrate on love between two people in a monogamous relationship when answering the research question. However, I do question whether this focus on a biological approach and romantic monogamous love is the morally desirable.

¹⁴ Erich Fromm, *The art of loving: The centennial edition*, A&C Black (2000).

In order to fulfill the purpose of this thesis, the methodology includes a literature review. Literature that defends and criticizes love enhancement will be examined. Besides, literature on the philosophy of love will be included. This includes the existential philosophical account of love developed by Fromm. The proposal of love enhancement is a utilitarian approach of love: love increases wellbeing, so we ought to promote love. The existential philosophical outlook enriches the ethical debate of the desirability of love enhancement by pointing to the underlying existential desire humans have when love is concerned. Moreover, it suggests that instead of following this desire we should broaden our perspective of love. This account adds to the debate a critical analysis of the valuation of romantic love in society. In addition, scientific research is included for two reasons. Firstly, because the proposal of love enhancement is based on scientific research on the biological processes of love. Secondly, because the proponents argue in favor of love-enhancing techniques based on specific scientific research on the ‘love-hormone’, it is important to analyze other scientific research that shows the side effects of stimulating this hormone. Besides, scientific sociological and psychological research on love is included in this thesis. This research enables to see love from another perspective. In other words, additional scientific research enriches and nuances the love enhancement debate.

The story of Tristan and Isolde functions as a thought experiment throughout this thesis. Just as the proposal of love enhancement, a love drug is suggested to enable love between two persons. I inquire different scenarios of the story in order to identify different consequences of the love drug on the lives of the characters and which consequences are desirable and which are not. The thought experiment illustrates which interpretation of the story is more compatible with our intuitions of what love is and ought to be and accordingly which conceptions of love are more morally desirable than others. Moreover, it helps to analyze what is at stake when love is enhanced with technological means. Consequently, the story functions as a thought experiment to examine if love enhancement misses out on the important aspect of love: to cultivate the internal disposition of loving.

1 | What Is Love Enhancement?

*How love came in I do not know,
Whether by the eye, or ear, or no;
Or whether with the soul it came
(At first) infused with the same;
Whether in part 'tis here or there,
Or, like the soul, whole everywhere,
This troubles me: but I as well
As any other this can tell:
That when from hence she does depart
The outlet then is from the heart.*

- Robert Herrick

As pointed out in the introduction, recent research shows that relationships end more often than they used to and has resulted in a rise in separation.¹⁵ The proponents of love enhancement argue that at the same time separation is regarded undesirable in western society.¹⁶ It has a negative influence on the lives of human beings: unhappiness among the separated, traumatic life experiences for children etc. According to the proponents of love enhancement, ‘being in love’ has in many cases an expiration date and this is caused by our biological make-up.¹⁷ In this light, there is, according to these proponents, a need for love enhancement. Changing our biology is, according to the proponents, desirable and in some cases it could even be an obligatory act (for example, when there are children involved).

In this chapter, I unravel the arguments in favor of love enhancement. According to the proponents, the selfishness of genes creates a discrepancy between evolutionary survival and wellbeing. I examine how the proponents see this discrepancy furthered by human values and the context humans live in (section 1.1). Because of this discrepancy it is argued that technological interference is desirable. In section 1.2, I investigate what love is according to

¹⁵ ONS, *Population trends*.

¹⁶ Savulescu, “Neuroenhancement of love and marriage”, 32.

¹⁷ Savulescu, “Neuroenhancement of love and marriage”, 31-34.

the proponents. As can be expected, this is a biological account of love. I investigate how love-enhancing techniques, according to the proponents, could solve the discrepancy between evolutionary survival and wellbeing by interfering into the biology of love. In section 1.3, I analyze the aim of the proponent to increase wellbeing in the act of enhancing love with technological means.

1.1 WHY LOVE ENHANCEMENT?

In this section, I explore why the proponents believe that love enhancement is able to counteract the separation-trend. The theoretical background of love enhancement will be analyzed.

1.1.1 Selfish Genes

So, according to the proponents of love enhancement, human existence is influenced by a discrepancy between what genes want and what human beings themselves want. Savulescu and Sandberg argue that our genes are not primarily concerned with us being happy or experience love.¹⁸ Their perspective is based on the theory of Richard Dawkins. Dawkins introduced the term ‘selfish genes’, which means that genes are mainly interested in their own survival and in the desire to fulfil this goal they use human bodies as vehicles.¹⁹ Genes are primarily concerned with keeping us alive and making sure that we procreate. In order to stimulate humans to act in such a way, feelings of happiness are introduced. The happy feelings of love stimulate people to reproduce. But happiness is only a side effect, if needed happiness is exchanged for reproduction strategies. In this regard, love is only introduced by our genes as a means to reach an end. In contrast, it is argued that humans themselves have the desire to be happy and experience love in their lives. They are not primarily concerned with the preservation of genes. This notion of selfish genes creates the vision of a discrepancy in human existence.²⁰

The proponents of love enhancement describe this discrepancy. Genes are for example mostly concerned with offspring-maximizing. Therefore, it is argued that humans generally act monogamous, but when children do not need both parents anymore, Genes provoke a drive to find a new partner to procreate with. As a result, humans have a partially monogamous character. Earp describes the implication of our evolutionary drives as follows:

¹⁸ Savulescu, “Neuroenhancement of love and marriage”, 31-44.

¹⁹ Richard Dawkins, *The selfish gene*. Oxford: Oxford University Press, 1990.

²⁰ Savulescu, “Neuroenhancement of love and marriage”, 33-36.

“We have a preconscious drive to desire some form of commitment with a single individual, at least for a limited time, but we can find ourselves tempted by other sexual opportunities as well.”²¹

In addition, genes are in favor of relationships where the combination of the DNA of the individuals is advantageous over others.²² They are not in the first place concerned with us having healthy and supportive relationships that promote happiness. Therefore, the proponents argue that our genes don't have the same desires we have, which results in conflicting desires within and between human beings. In contrast to our genes, we desire to live happily ever after with the ones we once fell in love with. On this account the proponents state that we should counteract the desires of selfish genes in order to promote wellbeing.

1.1.2 Human Values and Context

In the previous section, I have described the vision of the proponents that the selfishness of genes is not always in line with the desires human beings themselves have to live happy lives. In this section, I investigate the argument of the proponents that certain values and the modern context can even reinforce the discrepancy between the desires of selfish genes and the desires of individuals to live happy lives.

According to Earp, social values prescribe perfect fidelity and trust upon each other.²³ The institution 'marriage' is built around the idea that people do not cheat and stay together no matter what happens. If someone becomes ill, depressed or falls in love with someone else, the marriage-promise must nonetheless survive. The social value of marriage gives people certainty in an uncertain world and this creates benefits. According to Earp, research has shown that those in a faithful marriage are happier, are physically and mentally healthier and live longer, than partners in cheating marriages.²⁴ The social value of fidelity is beneficial for those having a relationship. Earp states that fidelity is contradictory to the desire of genes to maximize offspring in order to safeguard their survival.²⁵

²¹ Earp, “Love and other drugs”, 14.

²² Dietrich Klusmann, “Sexual motivation and the duration of partnership”, *Archives of Sexual Behavior* 31, no.3 (2002): 275–287.

²³ Earp, “Love and other drugs”, 14.

²⁴ Clark R. Wilson & Ashley J. Oswald, “How does marriage affect physical and psychological health? A survey of the longitudinal evidence”, IZA Discussion Paper 1619 (2005).

²⁵ Earp, “Love and other drugs”, 14.

The proponents of love enhancement argue that the discrepancy between human desires and the will of genes is reinforced by the difference between our current environment and the environment our genes are adapted to. Society has evolved and created great changes in human culture and environment. This created society is in many aspects different from the environment our ‘selfish genes’ are adapted to.²⁶ In line with this research, it is therefore argued by the proponents that our biological evolutionary adaptation is slower than our social changes. For example, the present environment ensures that people live longer than previously.²⁷ At the same time, this does not mean that our genetic make-up enable us during this longer lifespan to maintain the relationships we have. In a past environment, people died at a young age, which made a gene that enabled permanent marriages unnecessary. For the survival of the genes the duration of love and relationships had to be long enough to ensure that children were raised adequately in order to survive.²⁸ In this regard, the proponents argue the existence of a discrepancy between the evolutionary duration of love and the ability to live longer lives in our current society.

Therefore, it is concluded that humans have two conflicting forces inside themselves: the gene-driven desire to pass on DNA and the desire to form a certain long-term committed relationship with one person in modern society.²⁹ Due to the discrepancy between on the one side human values and the modern context and on the other side the will of the genes, love becomes a battlefield. As suggested by Earp, in the modern world it becomes harder to stick to the social values of marriage. There are more temptations to surrender to evolutionary-driven desires. Besides, there is more time to surrender to temptations because of the length of lifespan. At the same time, humans have the biological knowledge and technological means to eliminate those character traits that we do not specifically appreciate in human nature.

In this context, it is suggested that relationships can be safeguarded against the biological drive of human genes to offspring-maximizing. Savulescu and Sandberg state that “in a conflict between human values and evolution, we might very well ignore what evolution would

²⁶ Savulescu, “Neuroenhancement of love and marriage”, 33.

²⁷ Rudi G. Westendorp & Thomas B. Kirkwood, “Human longevity at the cost of reproductive success”, *Nature* 396, no.6713 (1998):743–746.

²⁸ Savulescu, “Neuroenhancement of love and marriage”, 33.

²⁹ Other research on biology and evolution could have critique on this conclusion. The aim of this thesis is not to question the outlined discrepancy between human values and biology. Rather, in this thesis I assume that this conclusion is correct and focus on what it means when love is understood in such terms.

promote”.³⁰ Love enhancement could liberate human beings from the constraints evolution poses on us in the search for happy long-lasting love lives.

1.2 HOW SHOULD LOVE BE ENHANCED?

The earlier described conflict in the human existence can be solved through interference in the biological processes that manage love. Before describing which techniques can be used to interfere, an account of what the proponents of love enhancement consider as ‘love’ is needed.

1.2.1 *Biological Account of Love*

Earp et al. state that they focus primarily, in their argument in favor of love enhancement, on:

“a psycho-biological account of love. This account suggests that the complex feelings, motivations, and interpersonal attachments that one would typically associate with the word “love” are actually grounded in, and in fact emerge from, a suite of neurochemical and behavioral subsystems that evolved to promote the reproductive success of our ancestors. How, precisely, these underlying systems relate to “higher order” conceptions (and subjective experiences) of love is not yet fully understood—but it is clear by now that they do relate.”³¹

Scientists have inquired the mystery of love by looking at the biological processes in human nature that are accountable for ‘love’. They have appointed certain chemicals, brain-parts and evolutionary processes that are responsible for the ability to love.³² These evolutionary determined processes can, according to the proponents, be seen as ‘human universals’ that have different cultural and individual expressions.³³ It forms the basis on which each culture and individual can built their own customs and rituals. The anthropologist and human behavior researcher Helen Fisher has studied the processes in the brain that are associated with the experience of love.³⁴ The proponents of love-enhancement refer to her research on lust, attraction and attachment.³⁵ Different centers in the brain and the release of different hormones

³⁰ Savulescu, “Neuroenhancement of love and marriage”, 41.

³¹ Brian D. Earp et al., “If I could just stop loving you: Anti-love biotechnology and the ethics of a chemical breakup”, *The American Journal of Bioethics* 13, no.11 (2013): 4.

³² Helen E. Fisher et al., “Defining the brain systems of lust, romantic attraction, and attachment”, *Archives of Sexual Behavior* 31, no.5 (2002): 413–419.

³³ Savulescu, “Neuroenhancement of love and marriage”, 35.

³⁴ Fisher, “Defining the brain systems”: 413–419.

³⁵ Savulescu, “Neuroenhancement of love and marriage”, 35.

in these parts are responsible for the experience of these three love-related feelings. Hormones associated with lust endorse sexual desires, those associated with attraction stimulate the selection of a specific partner and hormones that are responsible for attachment promote pair bonding. The brain centers and hormones that are associated with attachment allow people to fulfill parental duties.³⁶ In figure 1 the three love-related experiences and associated brain centers and hormones are described.

	Lust	Attraction	Attachment
<i>Role</i>	Seek sexual union with any appropriate partner	Choosing and preferring a partner	Stay together with partner
<i>Mediators</i>	Hypothalamus, sex hormones	Corticolimbic, dopamine, lowered serotonin, epinephrine	Oxytocin, vasopressin, corticotropin-releasing hormone (CRH)?
<i>Ways of modifying</i>	Pheromones, testosterone	Pheromones, stimulants, oxytocin?	Oxytocin, vasopressin, entactogens, CRH?

Figure 1 | Chemical Stimuli are responsible for different love-related brain systems.³⁷

Accordingly, hormones such as oxytocin, vasopressin, entactogens and possibly CRH are responsible for the experience of attachment towards ones’ partner. Due to neurotransmitters such as oxytocin women fall in love, vasopressin ensures that men fall in love.³⁸ For both sexes oxytocin creates the ability to feel connected with one another and establish pair bonding with other human beings. This is because oxytocin increases care and trust in organisms. Oxytocin is also called the ‘cuddle-hormone’, because the hormone is mainly released during physical contact.^{39,40} Enhancing these hormones could result in an increase of attachment.

Additionally, the proponents of love enhancement include research on the difference in the brain between monogamy and polygamy.⁴¹ Research on polygamous montane voles and monogamous prairie voles have shown that the difference in relationship choice is caused by

³⁶ Fisher, “Defining the brain systems”: 413–419.
³⁷ Savulescu, “Neuroenhancement of love and marriage”, 35.
³⁸ Patricia S. Churchland, *Touching a Nerve: The Self as Brain*, WW Norton & Company (2013).
³⁹ Patricia Churchland, “Touching a Nerve: The Self as Brain”, Published on 23 November 2015, Video, 34:35, <https://www.youtube.com/watch?v=kPc9qs7YK1w>.
⁴⁰ Andreas Bartels & Semir Zeki, “Neural basis of romantic love”, *Neuroreport* 11 (2000): 3829–3834.
⁴¹ Savulescu, “Neuroenhancement of love and marriage”, 35.

difference in the sensitivity of neuropeptide receptors.⁴² That is to say, that the monogamous prairie voles have receptors in the brain that are more sensitive for oxytocin and vasopressin than their polygamous relatives. Experiments have shown that blocking these receptors causes polygamous behavior in the monogamous voles. Gene therapy with vasopressin receptor genes made the polygamous voles behave like the monogamous voles.⁴³ According to Savulescu, Sandberg and Earp these findings give biological evidence for monogamous behavior in humans. They argue that this behavior is determined by evolutionary driven genes, instead of social values.⁴⁴ The proponents conclude that knowledge about the specific brain centers and hormones that are responsible for ‘love’ enables us to use techniques that can enhance love.

1.2.2 Love-enhancing Techniques

As mentioned previously, after a couple of years people do not experience the same amount of love sensations as they used to in the early days of being in love. Initially the ‘experience of being in love’ with someone is intense, but this experience decreases over years. Biologically speaking, this is caused by the decrease of certain hormones such as oxytocin and vasopressin. According to the proponents of love enhancement, increasing the love-hormone oxytocin can counteract the diminution of experiencing love.⁴⁵

Increasing the level of oxytocin is argued to stimulate attachment in relationships. It would help couples that are in distress to focus on the positive sides of their relationship. This mechanism could support couples to step out of their normal patterns that may cause the relationship-problems. Oxytocin is also responsible for imprinting.⁴⁶ This means that someone remembers ‘details of the partner’, has ‘positive emotional associations’ with this person and recognizes ‘relationship-related habits’ they together have.⁴⁷ Imprinting enables someone to feel attached to a partner, because the partner is associated with these feelings. Oxytocin is able to connect feelings of attachment with a certain person.⁴⁸ It is suggested by the proponents that when partners take oxytocin together, mechanisms of imprinting are promoted. This could create

⁴² Hemanth P. Nair & Larry J. Young, “Vasopressin and pairbond formation: Genes to brain to behavior”, *Physiology* 21 (2006): 146–152.

⁴³ Nair “Vasopressin and pairbond formation”, 146–152.

⁴⁴ Savulescu, “Neuroenhancement of love and marriage”, 35.

⁴⁵ Savulescu, “Neuroenhancement of love and marriage”, 36.

⁴⁶ Yian Liu & Zai-Xing Wang, “Nucleus accumbens oxytocin and dopamine interact to regulate pair bond formation in female prairie voles”, *Neuroscience* 121, no.3 (2003): 537–544.

⁴⁷ Liu, “Nucleus accumbens oxytocin”, 537–544.

⁴⁸ Fisher, “Defining the brain systems”: 413–419.

close attachment to each other.^{49,50} For now, the proponents suggest that a nasal spray with this hormone is the most effective love drug.

Besides stimulating oxytocin, enhancing other hormones could have a positive effect on the experience of love. It is proposed that increasing or decreasing levels of the hormone testosterone could help both partners to modify different sexual desires. Testosterone is an important hormone when it comes to lust.⁵¹ Women who take testosterone may experience an increase in lust-sensations, where blocking the receptors of testosterone in men may decrease lust-experiences.⁵² Entactogens could also help to stimulate attachment. This hormone is known as MDMA and is used in therapeutic sessions to increase people's ability to communicate their emotions. Accordingly, the hormone could help couples during counselling to communicate in daily life hidden emotions.⁵³ Stimulating these different hormones could enable partners to experience love similarly to the early days of their relationship.

1.3 WHAT IS THE AIM OF LOVE ENHANCEMENT?

According to the proponents of love enhancement, the experience of wellbeing could be increased in the act of technologically interfering in the biological determination in the field of love. The idea is that when someone takes a love drug that the desires of the selfish genes are limited. In the act of counteracting our biological limitations, we become able to sustain stable monogamous relations. This is argued to be beneficial for the experience of wellbeing.⁵⁴

According to Derek Parfit, wellbeing is concerned with the question: "What would be the best for someone, or would be most in this person's interests, or would make this person's life go, for him, as well as possible?"⁵⁵ Different theories of wellbeing have different answers to this question. Parfit has made a distinction between three types of theories: hedonistic theories, desire-fulfillment theories and objective list theories.⁵⁶ These types are adopted by the proponents of love enhancement.

⁴⁹ Savulescu, "Neuroenhancement of love and marriage", 36.

⁵⁰ Throughout this thesis, it is not questioned whether the increase of oxytocin is able to enforce the attachment between two persons. However, it is questioned if this is the only effect oxytocin has in the hormonal system.

⁵¹ Fisher, "Defining the brain systems": 413–419.

⁵² Savulescu, "Neuroenhancement of love and marriage", 36.

⁵³ Savulescu, "Neuroenhancement of love and marriage", 36.

⁵⁴ Savulescu, "Neuroenhancement of love and marriage", 34.

⁵⁵ Derek Parfit, *Reasons and persons*, OUP Oxford (1984): 493.

⁵⁶ Parfit, *Reasons and persons*.

First, the proponents argue that love is desirable if considered from a hedonistic point of view. Savulescu and Sandberg state that:

“Hedonistic theories of well-being are defined in terms of mental states. The simplest view is that happiness, or pleasure (understood broadly as a mental state) is the only intrinsic good and unhappiness or pain the only intrinsic bad.”⁵⁷

According to the hedonistic view on love, love is desirable because it increases happiness which is the only intrinsic good. Love relationships ought to be enhanced for the alternative is heartaches. This is intrinsically bad, because it causes unhappiness. The proponents state that the positive effects of sustaining love relationships outcast the negative effects it might have.⁵⁸ And from a hedonistic point of view the positive effects of love on happiness is reason enough to use enhancing techniques.

In the proposal on love enhancement the desire fulfillment theory and the objective list theories of well-being are also briefly mentioned.⁵⁹ According to the desire fulfillment theory, wellbeing is promoted when one’s desire is fulfilled. But in order to be beneficial for the experience of wellbeing, it is important that a desire is well-informed and freely formed. Love drugs contribute from this perspective to wellbeing if both partners desire to take the drugs. According to the objective list theory, wellbeing exists out of the ability to flourish objectively.⁶⁰ An intervention is evaluated desirable when certain objective goods are accomplished. So, the desirability of love drugs depend on the evaluation whether it enables a couple to: develop one’s abilities and talents, maintain friendships, raise children and achieve other objective worthwhile things (this depends on the specific objective list of wellbeing one encounters).⁶¹

The three theories of well-being (hedonistic, desire fulfillment, objective list) are combined in the proposal of love enhancement. On this account, love drugs contribute to well-being if both partners desire to take it and the love drugs provide them to lead happy lives and lives which

⁵⁷ Savulescu, “Neuroenhancement of love and marriage”, 39.

⁵⁸ Savulescu, “Can we engineer love?”: 28-29.

⁵⁹ Savulescu, “Neuroenhancement of love and marriage”, 39.

⁶⁰ Savulescu, “Neuroenhancement of love and marriage”, 39.

⁶¹ Savulescu, “Neuroenhancement of love and marriage”, 39.

are objectively valuable.⁶² This definition of wellbeing, provided by the proponents, will be used to evaluate the desirability of love enhancement.

The proponents argue that love drugs are beneficial for the experience of wellbeing, because they ensure that love relationships last. Love relationships have a ‘hedonic, health, life satisfaction [and] social’ benefits. Love is healthy because social support is promoted which has different health benefits. Stress hormones are reduced in the body.⁶³ Besides, depression is less likely to occur and love relationships are a source of sexual activity, which has many benefits for body and mind. On the other side, those who are socially isolated have a higher risk to heart problems, depression and early mortality.⁶⁴ This is also true for those who are going through a breakup or divorce. And of course, children benefit from being raised by parents who have a stable love relationship.⁶⁵

With regard to desirability of love enhancement, the proponents argue that people have the freedom to shape their lives as they please. If this entails increasing their wellbeing with technological means, it is desirable and should be promoted to do so. Moreover, when two partners have made the decision to marry each other, they have an obligation to do everything they can to stay together.⁶⁶ The proponents argue that when children are involved that the two partners have an even stronger obligation to maintain the relationship as long as possible.⁶⁷ Consequently, they argue that:

“If there is a duty to be faithful to one’s partner, or a duty to do the best for one’s children (and so remain in a stable relationship), these could ground a duty to try to influence love through biological enhancement.”⁶⁸

⁶² When the term ‘wellbeing’ is mentioned, I refer to this combination of the three theories of wellbeing.

⁶³ Bert N. Uchino & Timothy S. Garvey, “The availability of social support reduces cardiovascular reactivity to acute psychological stress”, *Journal of behavioral medicine* 20, no.1 (1997): 15-27.

⁶⁴ Bert N. Uchino et al., “Heterogeneity in social networks: A comparison of different models linking relationships to psychological outcomes”, *Journal of Social and Clinical Psychology* 23, no.2 (2004): 123-139.

⁶⁵ Savulescu, “Neuroenhancement of love and marriage”, 37.

⁶⁶ Earp, “Natural selection”, 562-563.

⁶⁷ Earp, “Natural selection”, 563-564.

⁶⁸ Savulescu, “Neuroenhancement of love and marriage”, 38.

According to the proponents of love enhancement, we have a duty to commit ourselves to the marital oath⁶⁹ to be together for better or for worse and a duty to our children to do the best we can. So, if there is a possibility to use a drug that is able to sustain a long-lasting monogamous relationship, we have a duty to at least consider this possibility.

To conclude, the proponents of love enhancement state that love promotes many goods and this in turn increases ones wellbeing. Therefore in order to increase wellbeing, it is desirable to enhance love with technological means when love decreases in relationships. They argue that we should free ourselves from the enslavement that selfish genes forces on our love-lives. We have the bio-technological means to reach this end and therefore need to enquire the possibilities of love enhancement in order to eliminate the negative effects that selfish genes have on our lives. This could increase the experience of wellbeing and the ability to achieve ‘a good life’.

⁶⁹ Throughout this thesis, I do not focus solely on marriages. I include all sorts of pair-bonding, therefore I speak of relationships. The duty towards the marital oath will not be discussed in this thesis.

2 | What Ought Love to Be?

What is love ought to be?

Do we need to be free?

Or is it better to be together?

To conquer stormy weather

You and me, as a unity

Giving up our individual liberty

Or is this socially constructed?

Are we in general abducted

Of other forms of love

Where there can be a lot of

Tell me what is love ought to be

I do not know yet if I agree

- Roanne van Baren

In this chapter, the question of what love ought to be according to the proponents of love-enhancement will be addressed. I analyze the underlying assumptions in the argued desirability of the proposal of love enhancement. The conception of ‘what love is and ought to be’⁷⁰ that is in favor of these techniques will be identified. Accordingly, it is analyzed whether this conception is desirable.

In section 2.1, I internally criticize the argumentation of the proponents by pointing to an inconsistency. Previously, I mentioned that the proponents state that they start from a psychological account of love. Love is understood as a biological objective phenomenon which is universally shared among humans. It is suggested that this account is neutral with regard to the question ‘what love is’ and ‘ought to be’. This neutrality enable the proponents to argue that the use of love-enhancing techniques is desirable despite the ‘higher order’ conceptions that individuals have with regard to love. However, when taking a closer look at their

⁷⁰ In the following sections, I refer to ‘conception’ or ‘conception of love’, when I speak of ‘the conception of what love is and ought to be’.

argumentation, their starting point is a ‘higher order’ conception of love. The proponents regard a long-lasting romantic loving monogamous relationships as the most desirable form of love; where two people stay together until death tears them apart. When this ideal is not met, it is argued desirable to technologically control romantic love. The proposal of love enhancement is therefore not neutral, but a biased outlook on what love is and ought to be. Because of this biased outlook, the claimed universal neutrality of the proposal of love enhancement is questioned.

Consequently, it becomes questionable whether this specific ‘higher order’ conception is desirable. In section 2.2, it is asked whether it is desirable to technologically control romantic love. According to Nyholm, love-enhancing techniques value love instrumentally, but not intrinsically. On Nyholm’s account, it is questionable whether the proposed love-enhancing techniques enhance love as we normally appreciate love. In this section, I argue that the proponents of love enhancement have a narrow conception of love. That is, a conception, that does not include the most important aspect of love; the internal disposition of loving. Additionally, I analyze the theory of cultivating this internal disposition of loving encountered by Erich Fromm. On this account, the idea of a broader conception of love is developed. Throughout this thesis, I argue in favor of this broad conception and additionally question the desirability of love enhancement.

2.1 THE CONCEPTION OF ‘TECHNOLOGICAL CONTROLLING ROMANTIC LOVE’

Previously, I mentioned that the proponents claim that the ‘higher order’ conceptions of love are grounded in neurochemical processes, which enable a systematic distinguishable performance of love in the brain.⁷¹ Accordingly, it is argued that the biological interpretation of love does not prescribe a ‘higher order’ conception of love.⁷² Earp and Savulescu state:

“When we give our lectures on “love drugs,” someone usually sticks up her hand asks, “But what do you mean by ‘love’?” Usually we demur, saying something like “Look, what we are focusing on here are the neurobiological underpinnings of human lust, attraction, and attachment, and how those systems relate to ‘love’ is going to depend on the specific theory of love one prefers.” We don’t want to be prescriptive, and say that

⁷¹ Brian D. Earp and Julian Savulescu, “Love Drugs: Why Scientists Should Study the Effects of Pharmaceuticals on Human Romantic Relationships”, *Technology in Society* (2017): 13.

⁷² Earp, “Love Drugs: Why Scientists”, 13.

we know what love “really is,” nor do we want our ethical analysis to be tied to any single conception. So we tend to use the term informally, not to mention expansively, to cover a wide range of possible definitions.”⁷³

The citation points out that Savulescu, Earp and other proponents of love enhancement do not want to answer the question ‘what love is or ought to be’. Their aim is to convince the reader that they start from a neutral/objective perspective, without being influenced by different conceptions of love. Although the proponents claim to start from a neutral biological account of love, I argue in this section that the proposal of love enhancement starts *a priori* from a ‘higher order’ conception of love. When analyzing the proposal of love enhancement the assumption seems to be that a long-lasting loving monogamous relationship is the most favorable form of love. Moreover, when this romantic conception of love is in danger it seems desirable to technologically control love. In what follows, I identify this conception of love in the proposal of love enhancement. Finally, I further analyze what this inconsistency in the argumentation entails and what the consequences of this inconsistency are.

2.1.1 Conception of Long-lasting Romantic Loving Monogamous Relationships

In the first place, it is argued by Savulescu and Sandberg that research has shown that monogamy is the most desirable form of all existing forms of relationships through history and over borders. This research shows that although 80% of all societies allow polygamous relationships, still 80% of the inhabitants show monogamous behavior and only 20% percent have polygamous relationships.⁷⁴ According to Savulescu and Sandberg, this means that human beings are throughout different cultures more monogamous oriented than polygamous.⁷⁵ Savulescu and Sandberg add that: “divorce is usually seen as undesirable, [as] a “social disorder,””⁷⁶ They state that they will not question this assumption in their article.

The favorability of monogamous relationships throughout history and cultures and the social tendency to regard divorces as undesirable, is presented as an argument in favor of monogamy. The proponents argue that monogamous relationships contribute to the experience of wellbeing. Research results function as reference to show that a happy pair bond has a positive effect on

⁷³ Earp, “Love Drugs: Why Scientists”, 13.

⁷⁴ George P. Murdock, *Atlas of world cultures*, Pittsburgh: University of Pittsburgh Press (1981).

⁷⁵ Savulescu, “Neuroenhancement of love and marriage”, 34.

⁷⁶ Savulescu, “Neuroenhancement of love and marriage”, 32.

the experience of happiness.⁷⁷ However, the proponents do not inquire the positive effects of other relationship forms on the experience of wellbeing. Other research shows that there is a growing interest in other relationship forms, for example polyamory (having more lovers at the same time).⁷⁸ Moreover, the Dutch philosopher Simone van Saarloos has identified the cultural tendency to value monogamous relationships over other relationship forms.⁷⁹ She argues that this favorability does not necessarily imply that monogamy is indeed favorable. In contrast, other relationship forms can have a positive effect on people's lives.⁸⁰ The proposal of love enhancement does not include such an analysis and therefore it seems accurate to conclude that the proponents assume that love is most desirably shaped into a monogamous relationship.

Besides the favorability of monogamous relationships, it is assumed that romantic love is most desirably enhanced. According to the proponents, love is nowadays seen as the most important indicator for a good relationship. Based on research developed by Pinsof on marriages and divorces in western society⁸¹, Savulescu and Sandberg state that,

“most people find [love] highly relevant for marriage. The Western concept of marriage is heavily based on the assumption of shared love: today it is seen as primarily love-driven. Economic, social and political considerations still play a role but are no longer viewed as legitimate causes for marriage (or divorce). Marriage is expected to express the desires, goals and interests of the partners rather than outside groups”⁸²

On this account, the proponents argue that love should be enhanced. Firstly, because we cannot go back to times where love was not the most important indicator for a good relationship.⁸³ Secondly, they argue that the experience of love is linked to other values in modern societies. According to the proponents, individuals have the ability in their relationship to fulfill ‘the personal desires, goals and interests’.⁸⁴ Relationships are nowadays the one place an individual

⁷⁷ David G. Myers, “Close Relationships and Quality of Life”, *Well-being: Foundations of hedonic psychology*, New York: Russell Sage Foundation (2003): 374-391.

⁷⁸ Maura I. Strassberg, “The challenge of post-modern polygamy: Considering polyamory”, *Capital University Law Review* 31 (2003): 439-445.

⁷⁹ Simone Saarloos, *Het monogame drama*, De Bezige Bij (2016): 68.

⁸⁰ Esther Perel, *Mating in captivity*, New York: Harper Collins (2006).

⁸¹ W.M. Pinsof, “The death of “till death us do part”: the transformation of pair-bonding in the 20th century”, *Family Process* 41 (2002).

⁸² Savulescu, “Neuroenhancement of love and marriage”, 32.

⁸³ Earp, “Natural selection”, 578.

⁸⁴ Earp, “Natural selection”, 578.

is free to shape it as he/she pleases.⁸⁵ Therefore, they argue that love should be the baseline of a good relationship and that it is desirable to enhance this love with technological means if love decreases.⁸⁶

This conception of love corresponds with the western ideal of romantic love Erich Fromm has identified in his book *Die Kunst der Liebens (The Art of Loving)*.⁸⁷ According to Fromm, our contemporary society sees love as something that happens spontaneously and results in a long-lasting relationship. The idea of romantic love entails that the initial feelings of ‘falling and being in love’ are maintained during the long-lasting monogamous relationship. That is to say, the ideal does not make a distinction between these initial strong feelings and being together in a relationship. The strong feelings of ‘falling and being in love’ are wished and believed to be sustained. In this regard, love is first and foremost associated with these strong feelings, instead of being associated with having a relationship where those strong feelings have vanished.

The western ideal of romantic love sees the feelings of ‘falling and being in love’ as the glue in a relationship. Additionally, if the experience of the strong happy feelings decrease, the relationship is believed to be in danger. The proponents seem to support the same idea. Love enhancement is believed to counteract the dangers love faces.⁸⁸ As we have seen in section 1.2, the aim of love enhancement is to stimulate attachment between partners. Stimulating the hormone oxytocin is suggested to enable this attachment. This hormone is responsible for falling in love with a person and ensure that one stays with this person for a while (till babies are born and raised), so for the feelings of ‘falling and being in love’. This aim corresponds with the ideal of romantic love to sustain these feelings during the whole relationship. So, the conception of love seems to be that the long-lasting monogamous relationship has to be of a romantic loving kind.

2.1.2 Technologically Controlling Love

Moreover, if this romantic love decreases, the proponents argue that it is desirable to sustain the romantic ideal within a monogamous relationship through the use of love-enhancing techniques.⁸⁹ In what follows, I consider the context of the proponents of love enhancement.

⁸⁵ Earp, “Natural selection”, 578.

⁸⁶ Earp, “Natural selection”, 579.

⁸⁷ Fromm, *The art of loving*.

⁸⁸ Earp, “Natural selection”, 579.

⁸⁹ Savulescu, “Neuroenhancement of love and marriage”, 32.

The technologically controllable view on love reflects the context of contemporary western society and the wish to transform biological limitations. I argue that although the proponents claim to be objective with regard to ‘higher order’ conceptions of love, they themselves have a conception of love that is originated in the contemporary technological discourse.

According to Beall and Sternberg, love is first and foremost socially constructed by the context people live in.⁹⁰ The social-constructionist view holds that there is not a universal reality that is experienced the same across different cultures. The world is understood differently by the people interacting in different cultures. This is a dynamic process, where everyone actively constructs social reality in a specific culture. With regard to love this means that love is socially constructed in a culture by those living in that culture.⁹¹ Furthermore, Beall and Sternberg argue that theories about the nature of humans in a certain time and place fundamentally construct which conception of love is appreciated.⁹² Beall and Sternberg state that the view on human nature developed during the age of enlightenment has been dominant in the construction of conceptions of love in western society.⁹³ During this age the view was developed that humans are rational beings. Science could ensure that these humans were understood. Consequently, love was considered to be a ‘rational experience that can be controlled by those who experience it’.⁹⁴

The preoccupation during the enlightenment with science and the view that rational beings can control what they experience seem still present in the minds of the advocates of love enhancement. Over the last years, technological means have massively increased and simultaneously the idea is widespread that technology can interfere in biological and cognitive processes in order to change human life as we know it.⁹⁵ Accordingly, this contemporary technological discourse regards biological enhancement of human beings as something desirable. The proposal of love enhancement seems to reflect the idea that technology can control those aspects of life which we dislike. Consequently, it is regarded desirable to technologically control the biological limitations of life. The decrease of love during a relationship is such a limitation which is regarded as something which can and ought to be

⁹⁰ Anne E. Beall and Robert J. Sternberg, “The social construction of love”, *Journal of Social and Personal Relationships* 12, no.3 (1995): 417-438.

⁹¹ Beall, “The social construction of love”, 418-420.

⁹² Beall, “The social construction of love”, 418-428.

⁹³ Beall, “The social construction of love”, 428.

⁹⁴ Beall, “The social construction of love”, 428.

⁹⁵ Jos de Mul, *Cyberspace Odyssey*, Kampen: Klement (2002).

technologically controlled. Love is seen as a biological systematic phenomenon which can and ought to be changed. In the act of technologically controlling love a better form of love can be established, a love that lasts in the shape of a monogamous relationship. The following citation of the proponents illustrate the vision of the contemporary technological discourse:

“Our evolutionary adaptations are based on an ancestral environment utterly unlike our present, and some adaptations promote competitiveness and unhappiness rather than happiness. Chemical and other biological manipulation of our emotion is a way to circumvent this bind, allowing human desires to influence the underlying biology. This represents an important move towards “biological liberation,” that is, to us being liberated from the biological and genetic constraints evolution has placed on us and that now represent impediments to us achieving a good life or other valued goals.”⁹⁶

It is argued that because our experience of wellbeing is limited by selfish genes, it is desirable to interfere in this determinism. The proponents argue that we can counteract the misery of decreasing love by interfering in the biological foundation. In this view, love becomes something we can technologically control and mold into something which increases wellbeing.

2.1.3 The Inconsistency

The line of reasoning of the proponents seems to be that love should be technological interfered with in order to promote long-lasting loving monogamous relationships. This conception is argued to be beneficial for the experience of wellbeing. Although the proponents claim to be neutral with regard to conceptions of love, their argument assumes a conception of a technological controllable romantic love. The proposal prefers monogamous relationships and in order to maintain these relationships it is desirable to technologically control love when it decreases.

The inconsistency is that on the one hand the proponents do not want to define ‘what love is’ or ‘ought to be’, and on the other hand their arguments point to a very specific conception of love. More specific: on the one hand, the proponents argue to respect a wide range of possible conceptions of love by pointing to the biological account of love that underlies these conceptions. They claim to be neutral with regard to ‘higher order’ conceptions. On the other

⁹⁶ Savulescu, “Neuroenhancement of love and marriage”, 41.

hand, in their argumentation they seem to prefer a conception of a long-lasting romantic loving monogamous relationship over other conceptions of love. Monogamous relationships are valued over other relationship forms. Besides, romantic love is valued over other interpretations of love. The stimulation of oxytocin in the body increases the feelings of ‘falling and being in love’ with one person and these feelings are specifically associated with romantic love. Moreover, it is argued desirable to technologically control this romantic love when it decreases. This analysis points out, that their proposal is not neutral with regard to ‘higher order’ conceptions of love. Instead it consist a biased outlook in favor of technologically controllable romantic love.

This inconsistency is problematic, because it contradicts the proponents’ aim to be neutral with regard to ‘higher order’ conceptions of love. Because their proposal is built on a ‘higher order’ conception of love, love-enhancing techniques are not able to enhance every ‘higher order’ conception of love. Not all conceptions of love are compatible with the conception of technologically controllable romantic love. In turn it is questionable whether this conception of love is most desirably enhanced.

In other words, if the proponents themselves have chosen for a specific a higher order conception of love, it is questionable whether this conception of love is desirable. The favorability of monogamy and the view that the biological foundation of love ought to be technologically controlled is ‘a’ conception of what love is and ought to be, but may not be the most desirable conception of love. In 2.2, I question the desirability of this conception.

2.2 A NARROW VS BROAD CONCEPTION OF LOVE

In this section, I give an external critique to the proposal of love enhancement. I argue that the proponents’ conception of a ‘technologically controllable romantic love’ is a narrow conception of love. This narrow conception disregards an important aspect of love: the internal disposition of loving. Accordingly, I argue in favor of a broad conception of love. This broad conception includes the internal disposition of the ability to love and aims at cultivating this internal disposition.

2.2.1 Instrumental vs Intrinsic Value of Love

We have seen that the proponents argue that we can counteract decreasing romantic love by technologically controlling biology. This seems an attractive proposal. Of course we want to

live happy lives and accordingly increase the experience of wellbeing. If we just need to take a love drug that enables such a life, why not? If technological controlling romantic love increases wellbeing, why should we not control it? According to Sven Nyholm, this instrumental approach of romantic love is problematic, because it is not the intrinsic value of love that is promoted with love-enhancing techniques.⁹⁷ In the proposal, love is not regarded as a good in itself, rather it is regarded as a means to increase another good: wellbeing. The proponents have lightly touched upon the intrinsic value of love being an intrinsic good, but according to Nyholm not sufficiently:

“When [the proponents] comment on what it might be for love-relationships to be viewed as good in themselves, they speculate that the idea might be that they function ‘as a means of self-development, self-realization or even a duty to a divine plan’. [Therefore,] we need to conclude that although Savulescu and Sandberg write, later in their essay, that they ‘have discussed the intrinsic value of love’, they don’t really take the idea of love as an intrinsic human good anywhere near as seriously as they take the idea of it as a means to various other goods and benefits.”⁹⁸

Nyholm continues to explain what love as an intrinsic good entails. He mentions three features of love which he borrows from Pettit’s analysis of love understood as an intrinsic good.⁹⁹ First, love as a good in itself implicates that two partners are firmly attached to one another. That is to say, trust one another in the premise that the other will be there when one of them is in need of care. Second, this firmly attachment must be based on an internal disposition of loving present within the lovers. This internal disposition enable the lovers to awake their loving attachment. Love as a good in itself entails the ability of lovers to generate the care for one another. Thirdly, love is judged to be a good in itself when the internal disposition of loving is awakened by something particularistic. That is to say, we want this loving attachment on behalf of our lover to be activated by something we ourselves have. I desire that the internal disposition of loving of my lover is awakened by me in particular.¹⁰⁰

⁹⁷ Nyholm, “Love troubles”, 190-202.

⁹⁸ Nyholm, “Love troubles”, 194-196.

⁹⁹ Philip Pettit, *The Robust Demands of the Good*, (Oxford: Oxford University Press, 2015).

¹⁰⁰ Nyholm, “Love troubles”, 194-195.

The first feature of love as a good in itself, entails that the individuals in a certain love relationship are firmly attached to each other.¹⁰¹ This first feature does not exclude the possibility of love enhancement. Love-enhancing techniques, could strengthen the ties between the individuals, which in turn would enable them to enjoy each other's care. The conception of technologically controlling romantic love is from this perspective unproblematic, because love is valued instrumentally for the sake of care, which could increase the experience of wellbeing. However, this aspect of love is one of the features of love being a good in itself. The other two features limit the desirability of the use of love-enhancing techniques.

These additional features of love are important when analyzing the use of love-enhancing techniques. If lovers decide to use a nasal spray with oxytocin the two other features are not satisfied. That is, the internal disposition and specific characteristics to awake this loving disposition on behalf of the lovers are not present. The lovers lack *a priori* the ability to generate the love in themselves and the lovers are not able to awake the love in one another. In other words, I want my lover to be able to love me as the lovable person I am for my lover. In love we desire that these conditions are achieved without something external interfering in this love, for it would not be love as an intrinsic value that would be enhanced.

Nyholm suggests that if partners are not able to fulfill these conditions themselves over time, to sustain the attachment between them, then perhaps love as a good in itself is not possible between these persons. This is so because, "we desire that our lovers should welcome the ways in which they are attached to us and that they should be willing to commit to a relationship founded upon that attachment".¹⁰² Love drugs are not able to produce this intrinsic good in these persons, because love presupposes an internal factor that is not generated with enhancing externalities. Therefore, Nyholm concludes that it is not love as intrinsic good that is enhanced when using love-enhancing techniques, but love as an instrumental good that increases wellbeing. Controlling love with the use of technological means would not bring forth love with the same intrinsic value that love without the use of these techniques has.

The difference between valuing love as an intrinsic or instrumental good, can be illustrated by the story of Tristan and Isolde (see Box 1 below). Imagine that the story of Tristan and Isolde continues in a dramatic plot twist. Mark catches Isolde and Tristan in the heat of the moment.

¹⁰¹ Nyholm, "Love troubles", 194-195.

¹⁰² Nyholm, "Love troubles", 197.

Although Mark is aware of the fact that Isolde has been cheating with Tristan, he wants to figure things out with Isolde. They have a kingdom to reign and want to live happy lives in this kingdom. If Isolde used the love potion again, but now during couples therapy with Mark. Would Mark see her love stimulated by the love drugs as intrinsically valuable? As the awakening of a loving disposition in Isolde, which particularly he awakened in her? Probably not, because the created attachment is not something which Mark himself has awakened in Isolde. Rather, the drugs has caused this feeling in Isolde. The drugs has been taken for other reasons. Namely, the persistence of the kingdom, which brings forth wellbeing. Therefore, it is questionable that it is intrinsic love that is promoted by the love potion and if Mark would appreciate the controlled love of Isolde in the same way he would when Isolde loved him without the use of love-enhancing techniques.

Box 1: The Story of Tristan & Isolde

Centrally in the story is the love drug that causes an inseparable romantic love between Tristan and Isolde. Isolde's mother brews a liquid of herbs and flowers. She gives it to her maid Brangien with the messages to serve it to Isolde and her husband-to-be, king Mark. This potion will ensure that the two fall in love in their arranged marriage. Tristan is the stepson of Mark and is send to escort the queen-to-be to the kingdom of Mark. However, on the journey of Tristan, Isolde and Brangien, Tristan and Isolde are thirsty and find the liquid. They mistake it for wine. The two fall deeply in love after drinking the potion. Isolde and Mark still get married, but the love between Tristan and Isolde is too strong. They still meet each other outside the kingdom...¹⁰³

Love-enhancing techniques regulate the first feature of the intrinsic value of love Nyholm pointed out. Love-enhancing techniques stimulate attachment and the ability enjoy each other's care. However, the two other features of the intrinsic value of love Nyholm identifies, are not satisfied in the act of enhancing love. The proposal of using love-enhancing techniques therefore starts from a narrow conception of love. The two other features are important in the experience of romantic love. We desire that our lover has an internal disposition that is the source of love and that we as particular beings are able to awake this love.

¹⁰³ Joseph Bédier and Edward J. Gallagher, *The Romance of Tristan and Iseut*, Hackett Publishing, 2013. Based on this book, I summarized the most important points of the introduction of the story of Tristan and Isolde.

The conception of love the proponents assume is a narrow conception of love that disregards the broader conception of love. The latter conception puts emphasize on the importance of the existence of the internal factor on behalf of the lovers. On Nyholm's account, it is not desirable to use love-enhancing techniques, because it enhances the narrow conception of love. Instead of enhancing the narrow conception of love, it is desirable to value a broader conception of love. In what follows, I analyze how this broad conception of love contradicts love enhancement. I argue that the Fromm's theory of love supports the desirability of a broad conception of love.

2.2.2 The Internal Disposition of Loving

In line with Nyholm's first and second feature of the intrinsic value of love, Fromm states that we should appreciate the ability to love.¹⁰⁴ In other words, the internal disposition of loving that enables the ability to experience love needs to be valued in order to ensure the desired firmly attachment of love. Fromm states that although we have a strong desire to love, we are unknown in the field of love. As mentioned in section 2.1, the ideal of romantic love entails that we have the desire to sustain the strong attached feelings of 'falling and being in love' during our whole relationship. I have shown that the proponents conception of a long-lasting romantic loving monogamous relationship underlines this desire. Fromm argues that this desire is an unrealistic view on what love is and ought to be. The desire cannot be maintained throughout a relationship, because after a while the strong attached feelings and mystery of the other person vanishes.¹⁰⁵

Fromm's account adds to Nyholm's argument that we should 'cultivate' the internal disposition of loving. In our society we desire that the strong feelings of attachment arise spontaneous and that these feelings sustain without any costs. We desire that love is easy, but frequently the experienced love is not easy.¹⁰⁶ Fromm argues that we therefore should approach love not as a spontaneous romantic love, but as an art. Just as any art one has to invest in learning the art. It costs time and energy. People need to learn the theory and the practice of loving.¹⁰⁷

Accordingly, instead of using a love drug, the internal disposition needs to be cultivated. Love drugs are not able to generate fully the intrinsic good of love in partners, because love

¹⁰⁴ Fromm, *The art of loving*, 3-12.

¹⁰⁵ Fromm, *The art of loving*, 3-12.

¹⁰⁶ Fromm, *The art of loving*, 6.

¹⁰⁷ Fromm, *The art of loving*, 12-20

presupposes an internal factor that is not generated with love-enhancing externalities. This internal disposition is not something which is an easy fixable object, but is something that needs time and practice. Additionally, we should spend our time and energy in practicing the art of loving. Instead of enhancing romantic love by lengthening the feelings of ‘falling and being in love’, the internal capacity to love needs to be cultivated.

However, Fromm would be critical towards the third feature of the intrinsic value of love Nyholm has identified. This third feature states that we desire in love that we as particular beings are able to call forth the internal disposition of loving in our lover. This feature of love is limited to the conception of a long-lasting romantic loving monogamous relationship. Because it underlines the desire to experience the strong attached feelings associated with romantic love towards one person. According to Fromm, love should not be directed at one specific person.¹⁰⁸ Rather, love should be generally cultivated. In chapter 4, I further analyze what this notion of cultivating the internal disposition of generally loving entails, but for now it is important to point out that the broader conception of love includes cultivating the internal disposition for oneself, humanity and the world. So, the internal disposition of loving¹⁰⁹ should be broadened.

To summarize, the broad conception of love entails that love is valued because of the existence of an internal disposition that enables the ability to generally love. In the narrow conception of love, the internal disposition of loving is not valued in the experience of love. That is to say, that it is not regarded important if the internal disposition of loving is absent or present. Rather, the narrow conception of love values love because of its ability to firmly attach two persons. Throughout this thesis, I argue that the broad conception of love is more desirable than the narrow conception of love.

2.3 CONCLUSION

In section 2.1, I have identified an inconsistency in the argumentation of the proponents of love enhancement. On the one hand, they claim to be neutral with regard to ‘higher order’ conceptions of love. On the other hand, their argumentation prefers a conception of a long-lasting romantic loving monogamous relationships. Besides, if this romantic love is in danger it is argued to be desirable to technologically control love; to regulate love in order to maintain

¹⁰⁸ Fromm, *The art of loving*, 3-12.

¹⁰⁹ The internal disposition of ‘loving’ and ‘the ability to love’ are used as synonyms.

the romantic love. The desirability seems to be originating in the contemporary technological discourse. Technologically controlling romantic love is argued to increase the experience of wellbeing.

The inconsistency in the argumentation opened up the possibility to analyze the conceptions of love the proponents value over other conceptions of love. In section 2.2, I have attempted to externally criticize the conception of a technologically controllable romantic love. It is argued that this conception disregards the importance of the intrinsic value of love. When love is technologically controlled with technological means in order to promote wellbeing, it is not love as we normally value love that is enhanced. The conception of love of the proponents is therefore a narrow conception. In contrast, a broad conception of love values love as a good in itself. In line with Fromm, it is argued to be more desirable to cultivate the internal disposition of loving. This cultivation aims at promoting the internal factor of the ability to love. In the next chapter, I further develop this argument by pointing out that the broader conception of love is more desirable in light of autonomy.

3 | Are the Means Desirable?

But as they thus tasted their first joy, Brangien, that watched them, stretched her arms and cried at their feet in tears:

“Stay and return if still you can ... But oh! that path has no returning. For already Love and his strength drag you on and now henceforth forever never shall you know joy without pain again. The wine possesses you, the draught your mother gave me, the draught the King alone should have drunk with you. (...) Through that cup you have drunk not love alone, but love and death together.”

The lovers held each other; life and desire trembled through their youth, and Tristan said, “Well then, come Death.”

And as evening fell, upon the bark that heeled and ran to King Mark’s land, they gave themselves up utterly to love.

- J. Bédier Rendered¹¹⁰

In this chapter, it is considered whether using love-enhancing techniques are desirable. When the value ‘autonomy’ is concerned, it is questionable whether the proposed means guarantee the ability to act as an autonomous being. Finally, it is argued that enhancing the narrow conception of love with technological means is not desirable.

In section 3.1 it is asked whether love drugs have a facilitating role or a determining role. That is to say, does a nasal spray facilitate the experience of love or is it comparable with using a love potion? This question is important in order to evaluate whether love-enhancing techniques limit or enable the ability to act as an autonomous agent. In section 3.2, I argue that there is something more crucial at stake, namely that love facilitators also limit the experience of autonomy, because love drugs reinforce the addictive forces of love. When the enhancement of the feelings of falling and being in love are comparable with an addiction, is it in light of autonomy desirable to boost love with love-enhancing techniques?

¹¹⁰ Bédier, *The Romance of Tristan and Iseut*, 14-15.

3.1 FACILITATING OR DETERMINING?

In this section, I consider the critique of Naar against Nyholm's account that love enhancement disregards the intrinsic value of love. Naar argues that love-enhancing techniques have a facilitating role in the cultivation of the internal disposition of the ability to love.¹¹¹ On this account, the proposal of love enhancement does value the broader conception of love. I make a distinction between a love potion and a love facilitator and argue that love-enhancing techniques can have a similar effect as a love potion. On this account, the attachment between two persons is artificially constructed, instead of originated in the internal disposition of loving. The broad conception of love is therefore not satisfied.

3.1.1 *Love Potion or Love Facilitator*

Naar reacts to the argument of Nyholm against the proposal of love enhancement.¹¹² Naar opposes that love-enhancement facilitates, and does not limit the intrinsic value of love Nyholm identifies. In other words, the internal disposition of loving is not disregarded in the proposal of love enhancement, rather love-enhancing techniques have a facilitating role in enabling that the internal disposition of loving could flourish.

Naar points out that love-enhancing techniques are able to awake the internal disposition of loving in us. Just as other external factors these techniques could have a significant influence on the experience of love in relationships. Other external factors are "lighting conditions, room temperature, energy levels, health, background music, dancing, romantic weekends, and so on."¹¹³ Likewise, Earp argues that using a nasal spray with oxytocin is not different than any other means we already use:

"After all, a couple who share a bottle of wine over a romantic dinner are ingesting a pretty powerful chemical substance, and it could certainly count as a love drug if used in the right way. Older couples who find that Viagra can restore a healthy sex life are using another form of love drug. So if we already use love drugs in everyday life, there is no clear reason why married couples shouldn't be able to manipulate their brain

¹¹¹ Hichem Naar, "Real-world love drugs: Reply to Nyholm", *Journal of Applied Philosophy* 33, no.2 (2016): 197-201.

¹¹² Naar, "Real-world love drugs", 197-201.

¹¹³ Naar, "Real-world love drugs", 200.

chemistry using other such compounds – especially as research zooms in on particularly promising candidates such as oxytocin.”¹¹⁴

On this account, it is clear that the proponents of love enhancement regard love-enhancing techniques not differently than already existing love-enhancing factors. Naar argues that we need these factors in order to sustain the relationships we have. He argues that love drugs has a similar facilitating role in the experience of love. Just as dancing and alcohol, a love drugs is able to strengthening the ties between two lovers.

The question remains however whether this described facilitating role is the only role love-enhancing techniques could have. Lotte Spreeuwenberg points out that the arguments of Naar and Nyholm have different starting points.¹¹⁵ Nyholm points out that sustaining love where love would be absent, without the use love-enhancing techniques, is not desirable. In this case, the internal disposition of loving is *a priori* absent. In contrast, Naar points to a facilitating role of love-enhancing techniques, where the internal disposition is present, but needs a boost. According to Spreeuwenberg, these different interpretations are grounded in different views on how love drugs could function.¹¹⁶ Nyholm points to a love drug that function as a love potion, where Naar foresees a less stronger love drug that functions as a facilitator. Just as alcohol or romantic music would function as a facilitator for the experience of love. The question is if love-enhancing techniques determine love just as a love potion would or that they have only a facilitating role in the experience of love? Are love drugs comparable with a love potion or with a love facilitator?

Naar points out that if love drugs are comparable with a love potion, it would be undesirable to use these love drugs. But, according to Naar, it is unrealistic to think that they would.¹¹⁷ Spreeuwenberg opposes that a love potion that creates and sustains love instead of facilitates is a more realistic prognosis than Naar foresees.¹¹⁸ Based on the studies of Helen Fisher¹¹⁹, Spreeuwenberg argues that,

¹¹⁴ Earp, “Love and other drugs”, 16.

¹¹⁵ Lotte Spreeuwenberg, “Taking the Love Pill: A Reply to Naar and Nyholm,” *Journal of Applied Philosophy* (2018).

¹¹⁶ Spreeuwenberg, “Taking the Love Pill”, 4-5.

¹¹⁷ Naar, “Real-world love drugs”, 200.

¹¹⁸ Spreeuwenberg, “Taking the Love Pill”, 6-7.

¹¹⁹ Helen Fisher, Arthur Aron & Lucy L. Brown, “Romantic love: An fMRI study of a neural mechanism for mate choice”, *Journal of Comparative Neurology* 493, no.1 (2005): 58–62.

“We merely have to imagine that research on the brain in love, as well as ongoing developments in deep brain stimulation and developments in brain hacking are brought together in a system or technology that activates the right regions of the brain in the right manner every time you are close to a particular person. (...) The development of a technology that activates precisely these regions when you are with a particular person, might not be too far-fetched. Such a technology would condition someone to feel something that can become understood as love.”¹²⁰

According to Spreeuwenberg, it is not unrealistic to claim that research will be able to understand how the brain in love works and in addition how we can influence the brain. On this account, it will be possible to create or sustain the internal disposition of loving, just as a love potion would. In contrast to drinking wine or listening to romantic music that facilitate the already existence of the internal disposition of loving, love-enhancing techniques have a determining role in the experience of love.¹²¹

Spreeuwenberg argues that if love drugs are used to give the internal disposition a boost and therefore function as a facilitator, it is less problematic to use the love drugs.¹²² But because of the possibilities technology has, it is likely that love-enhancing techniques could function in the future as a love potion. This means that love drugs could in the future determine love. If love drugs have a determining role, the conditions of intrinsically valuable love is not satisfied. In addition, when love drugs determine love it is less desirable to use love-enhancing techniques, because the ability to act as an autonomous agent is limited. This argument will be addressed in next section.

3.1.2 An Autonomous Act?

The distinction between a love drug that facilitates or determines love is important, because autonomy is differently interpreted when one’s love is determined, instead of facilitated, by a love drug. According to Spreeuwenberg, we desire in love that the internal disposition of loving present in our lover is based upon an autonomous choice. In this section, it is analyzed what ‘autonomy’ entails, how this value is related to love and what this implies for the desirability

¹²⁰ Spreeuwenberg, “Taking the Love Pill”, 6.

¹²¹ Spreeuwenberg, “Taking the Love Pill”, 5-6.

¹²² Spreeuwenberg, “Taking the Love Pill”, 7.

of love enhancement. It is argued that although the proponents argue that autonomy is safeguarded by the notion of ‘marital autonomy’, it is questionable whether this is the case.

The proponents of love enhancement state that one of the most important western values is autonomy. We desire to have the freedom to shape our ‘own conception of the good life’ and the freedom to act upon this conception.¹²³ Their definition of personal autonomy corresponds with the definition of autonomy developed by Kantian ethics.¹²⁴ As human beings we are member of the natural order, but instead of being only determined by this natural order we are able to have ‘a conception of ourselves as agents’.¹²⁵ This conception enables the possibility to experience the freedom to act as an agent, free from the forces of the natural order. We have the ability to act autonomous. Being autonomous therefore entails the ability to freely choose one’s own actions and to have control over one’s own behavior. Because of this ability we ought to be respected as autonomous beings.¹²⁶

With regard to autonomy, Spreeuwenberg states that lovers desire that the love of one’s lover is based upon one’s free choice.¹²⁷ That is to say, that we want our love relationships to be based on an autonomous decision on behalf of our lovers. We want our lovers to have the ability to make a free choice to be with us or not. Katrien Schaubroeck states that loving someone does not mean that one is deprived of being able to rationally reflect upon the reasons why he/she loves that someone.¹²⁸ In the act of reflecting one is able to choose to love or not love someone. Moreover, we want our lover to be with us based on such a reflection. We do not want our lover to be with us based on unconscious forces.¹²⁹ Moreover, Fromm points out that loving someone entails making a decision and a promise to be with someone.¹³⁰

With regard to the possible objection that love-enhancing techniques might limit the ability to act as an autonomous agent, the proponents argue that “the value of personal autonomy extends to human relationships. Couples in a relationship should have privacy and freedom to form and

¹²³ Savulescu, “Neuroenhancement of love and marriage”, 37.

¹²⁴ Onora O’Neill, “Kantian ethics”, In Peter Singer (ed), *A companion to ethics* (1993): 176.

¹²⁵ O’Neill, “Kantian ethics”, 175-179.

¹²⁶ Jerome B. Schneewind “Autonomy, Obligation, and Virtue”, In Paul Guyer (ed.), *The Cambridge Companion to Kant*, Camdridge: Cambridge University Press (1992), 309-312.

¹²⁷ Spreeuwenberg, “Taking the Love Pill”, 6-7.

¹²⁸ Katrien Schaubroeck, “Loving the lovable”, *Love and Its Objects*, Palgrave Macmillan, London (2014): 108-124.

¹²⁹ Spreeuwenberg, “Taking the Love Pill”, 7.

¹³⁰ Fromm, *The art of loving*, 4-10.

act on their conception of what a good relationship is for themselves.”¹³¹ This is called ‘marital autonomy’.¹³² It is argued that the decision to use love drugs should be based on marital autonomy. This means that the choice to use love drugs must be based upon; voluntariness, informed consent, coercion must be avoided and autonomy should be respected and strengthened. A professional setting should safeguard this marital autonomy.¹³³ This extension of the definition of autonomy enable the proponents to argue that love drugs are not in contradiction with autonomy. Rather, this value enables partners in a relationship to make their own choices.

This analysis of the proponents is accurate, when love facilitators are concerned. In this case, the love drugs would function as a booster of the already present feelings of love, but does not determine the love. The internal disposition of loving would be also present when the lover did not take the drugs. Using a love facilitator does not deprive us from the ability to reflect upon the reasons to love someone. However, using love-enhancing techniques become less desirable when the effects of a love drug is comparable with a love potion. For, the love potion would determine the lover’s experience of love, rather than the lover himself having control over this loving action. If love drugs function as a love potion, the internal disposition of loving would be again created between the partners. In this case, the internal disposition of loving would remain absent if one did not take the love potion. So, when the feelings of falling and being in love have vanished between two people, a love potion would again create the internal disposition of the ability to love within the partners. Where the love facilitator would boost the internal disposition that is still present within the partners.

When a love potion has been taken, someone is limited in his/her ability to act as an autonomous agent that has the ability to freely decide to be with someone. In this case, someone lost his/her ability to decide to stop loving someone. Spreeuwenberg states that we would become pre-programmed robots.¹³⁴ Just as Nyholm pointed out, we would not accept this scenario, because we desire that our lovers want to be attached to us based upon the internal disposition on behalf of our partner. We want them to love us freely and not artificially. When a love potion is taken one does not love based upon a reflection about the reasons why he/she loves someone.

¹³¹ Savulescu, “Neuroenhancement of love and marriage”, 37.

¹³² Savulescu, “Neuroenhancement of love and marriage”, 37.

¹³³ Savulescu, “Neuroenhancement of love and marriage”, 40-41.

¹³⁴ Spreeuwenberg, “Taking the Love Pill”, 7.

This account of autonomy differs from the notion of autonomy of the proponents. The proponents state that love drugs do not limit autonomy, because people are free to choose to take the love drug. However, the above described account states that when a love potion is taken, one is deprived of the ability to choose to not love someone. The distinction between these evaluations of autonomy rests in different valuations of freedom. Amartya Sen describes that freedom can be intrinsically or instrumentally valued.¹³⁵ The intrinsic valuation of freedom emphasizes the importance of choice. Freedom is based on having the ability to choose something while at the same time having the opportunity to choose something differently. In contrast, the instrumental valuation of freedom values freedom as a means to achieve valuable states. Having the ability to choose between different opportunities is less important than the mental state one can reach with these opportunities.¹³⁶ These different valuations of freedom can be distinguished in the above described evaluations of autonomy when love-enhancing techniques are concerned.

The proponents evaluate autonomy as having the instrumental freedom to achieve a valuable state. Couples freely choose how to shape their relationship. Accordingly, if they freely choose to enhance their love to live happy lives, this is argued to be an autonomous decision. Autonomy is seen as having the ability to freely choose a certain end. However, when autonomy is defined in terms of intrinsically valuing freedom, the ability to choose between different opportunities is most important. When love drugs are comparable with a love potion people that use these drugs are deprived of this ability. Consequently, it would be argued that one is not able to experience the intrinsic value of freedom. On this account, the ability to act as an autonomous agent is limited.

In the above analysis, it is argued that love-enhancing techniques could in the future have a similar effect as a love potion would have. If this is true the internal disposition of loving is not cultivated but externally produced by the chemicals of the potion. This would be less desirable, because the ability to freely choose to be with someone is limited. Because a love potion does not facilitate but determine the internal disposition of loving, the broad conception would still not be satisfied in the act of using love-enhancing techniques.

¹³⁵ Amartya Sen, "Development as capability expansion", *University of Oxford* (1990): 48-51.

¹³⁶ Sen, "Development as capability expansion", 48.

However, the analysis that love-enhancing techniques function as a love potion is not a certainty, but based on a speculation how technology is able to create a love potion by gathering information about the brain. Because this account is based on speculations instead of certainties, the developed ethical analysis of the desirability of love-enhancing techniques is not strong enough to claim that these techniques are not desirable. In my view, there is something more crucial at stake in the use of love-enhancing techniques than the analysis that a love drug could have a similar effect as a love potion. Even if love drugs function as a love facilitator, it is questionable whether love drugs should be used in light of autonomy.

3.2 ENHANCING LOVE, STIMULATING ADDICTION?

In the previous section, I pointed out that we desire that our lover loves us autonomously. In this section, I argue that love-enhancing techniques are not able to guarantee the ability to choose autonomously in the field of love. Even when someone takes a love drug that facilitates the awakening of the internal disposition of loving autonomy is *a priori* limited.

The main aim of the proponents of love enhancement is to biologically stimulate the feelings of falling and being in love. I argue that the act of enhancing these feelings are comparable with stimulating an addiction. This is so, because the feelings of falling and being in love are associated with being addicted to one person. The act of enhancing love therefore limits us to our biological determination instead of rationally freeing us and enabling us to act as autonomous agents. Consequently, the aim to free us from our biological limitations as proposed by the proponents of love enhancement is not fulfilled.

3.2.1 Addicted to Falling and Being in Love

Savulescu and Sandberg have reacted on the objection that love-enhancing techniques could cause addiction to these techniques. They state that:

“Addiction is well documented to all substances and activities which stimulate these primitive reward centers, including sex. It would be important to ensure that such substances were used in a manner which prevented addiction, which one of us has argued is a very strong desire for pleasure.”¹³⁷

¹³⁷ Savulescu, “Neuroenhancement of love and marriage”, 39.

Savulescu and Sandberg try to ease the concern that love-enhancing techniques could cause addiction through stating that scientific research needs to guarantee safety when using love-enhancing techniques.¹³⁸ However, my concern is not that people become addicted to love-enhancing techniques, such as a nasal spray with oxytocin, but that feelings of falling and being in love caused by the hormone oxytocin are themselves comparable with an addiction. The aim of the proponents is to enhance these feelings with the use of oxytocin in order to sustain the attachment between two partners in a monogamous relationship. This in turn would increase wellbeing, because the partners are freed from the desires of selfish genes to procreate with as many people as possible. However, if the feelings caused by oxytocin are comparable with an addiction, it is questionable whether the use of love-enhancing techniques that increase the level of oxytocin in the body is desirable.

Before analyzing whether the feelings of ‘falling and being in love’ are comparable with an addiction, it is important to define what an addiction is. The researcher and psychiatrist Aviel Goodman has defined addiction:

“as a process whereby a behavior, that can function both to produce pleasure and to provide relief from internal discomfort, is employed in a pattern characterized by (1) recurrent failure to control the behavior (powerlessness) and (2) continuation of the behavior despite significant negative consequences (unmanageability).”¹³⁹

In other words, an addiction is a strong dependence on a certain addictive object, even though this dependence has a negative influence on the addict’s life (unmanageability). When this certain object is absent, the addict shows withdrawal symptoms. The urge to experience the object grows, which makes it a habituation. The addict loses in this process the freedom to choose (powerlessness).¹⁴⁰

As mentioned earlier, the proponents of love enhancement base their proposal on the research conducted by Helen Fisher on the biological processes of love. Interestingly enough, Fisher

¹³⁸ Earp, “Natural selection”, 578.

¹³⁹ Aviel Goodman, “Addiction: definition and implications”, *Addiction* 85, no.11 (1990): 1403-1408.

¹⁴⁰ Jane Simon, “Love: Addiction or road to self-realization?”, *The American Journal of Psychoanalysis* 35, no.4 (1975): 359-364.

points out in a TED talk that being in love is comparable with being addicted.¹⁴¹ In what follows, I analyze this comparison and what the consequences are when being in love is seen as an addiction. The two characteristics of addiction will be addressed: powerlessness and unmanageability.¹⁴²

First, powerlessness can be identified within the behavior of the person in love. This means that the lover is unable to control his/her behavior. When two persons fall in love a deep attachment towards each other is created by the hormone oxytocin, which enable the lovers to imprint the details of a lover (see section 1.2.2 for a detailed explanation of the influence of oxytocin). Fisher's research has also shown that feelings of 'falling and being in love' corresponds with brain activity in the reward system. This system enables that someone wants to love someone, because he/she feels rewarded when he/she does. In love we therefore want more and more and more. It seems never enough. Moreover, when a person is rejected by the beloved, the person wants the beloved even more. According to Fisher, oxytocin and the corresponding brain processes generate the focus on one person and the vigor to risk everything for love.¹⁴³ Because of the intensity of this experience, love is a strong urge. The lover wants more than anything else to be with her/his lover. Therefore, love has an uncontrollable character; the lover experiences a certain powerlessness with regard to behave otherwise.

Second, unmanageability is reflected in the behavior of people in love. That is to say, that the behavior is continued even though it can have negative consequences for the person in love. Firstly, a negative consequence is that a sense of self is lost in the process of 'falling and being' in love.¹⁴⁴ When someone falls in love, one's energy is fully focused on that one person. The other personal interests of individuals become of secondary importance. For example, being in love can have a negative consequence on one's study, work, friends, family, hobbies etc. Secondly, when one's lover is absent the lover might experience withdrawal symptoms, such as sleepless nights, lack of appetite, rapid heartbeats, frenetic activity alternated with periods of lethargy.¹⁴⁵ Despite these negative consequences the feelings created by oxytocin and the corresponding brain processes make the person in love focus solely on the one he/she loves.

¹⁴¹ Helen E. Fisher, "The Brain in Love", Published February 2008, Video, https://www.ted.com/talks/helen_fisher_studies_the_brain_in_love

¹⁴² Goodman, "Addiction: definition and implications", 1403-1408.

¹⁴³ Fisher, "The Brain in Love".

¹⁴⁴ Fisher, "The Brain in Love", 0:00-7:30,

¹⁴⁵ Simon, "Love: Addiction or road to self-realization?", 359.

To conclude, if the feelings of ‘falling and being in love’ caused by the hormone oxytocin are comparable with being addicted, is it desirable to use love-enhancing techniques that increase the level of oxytocin in the body? When the mental and physical state of falling and being in love is associated with an addiction, we would not argue that it is morally desirable to stimulate this addiction. If someone is addicted to something which makes that person focus totally on that something and risk everything else important for that person just to have that something, would we consider it desirable if that something was provided, instead of restrained from that person? Just as we would not consider it morally desirable to give the desired drug to the drug addict, it would not be desirable to give oxytocin when the level of oxytocin has dropped in the body of a lover.

3.2.2 Limiting Autonomy?

In this section, it is argued that when love is comparable with an addiction it is not desirable to enhance love. In this process, the ability to act as an autonomous agent is limited.

As pointed out in section 3.1.2, being an autonomous agent entails having the ability to determine one’s own actions and being able to have control over one’s behavior. Being addicted is associated with powerlessness and unmanageability and these characteristics limit the addicts ability to act as an autonomous agent. Accordingly, a person in love is less able to have control over his behavior and this behavior is continued even though it has negative influences on one’s personal life. In other words, one’s autonomy is limited in the process of ‘falling and being in love’. As the proponents have argued, this is a biological process that unites two persons with one another. But is it preferable to use love-enhancing techniques to (again) awake these feelings and accordingly limit autonomy or should we outgrow these feelings and regain our ability to act autonomous?

According to Fromm, human existence is based on the experience of being alone.¹⁴⁶ We are born alone and are aware that we are going to die alone. Based on this human existential experience, we desire to feel connected with one another. Fromm argues that love is the primary condition to feel this connectedness, to free ourselves from the feeling of being isolated. Love therefore has a strong influence on our lives and we have a strong desire to find love. However,

¹⁴⁶ Fromm, *The art of loving*, 17-23.

according to Fromm this desire is most of the time wrongly satisfied. The vision on romantic love in a relationship is based upon this desire of unification. In romantic love we desire to unify with one person in order to escape the feeling of isolation.¹⁴⁷ However, in the act of unification one gives up his independence. One does not have to feel alone anymore, but at the same time the ability to act upon one's own individuality, desires and interests is limited. The ability to be an autonomous agent is limited.

On Fromm's account, it becomes clear that the desire of unification is caused by the wish to escape the existential condition of being alone. However, the acceptance of the human condition of being alone, enables a person to experience one's own independence and accordingly is more able to act as an autonomous agent.¹⁴⁸ Because love-enhancing techniques promote exactly the unification with one person, it is questionable from this perspective whether autonomy is safeguarded. Using external love-enhancing techniques can be seen from Fromm's perspective as an attempt to escape the human condition. It aims to unite with one person, instead of accepting the existential condition that we are indeed alone individuals. Which enables us to experience autonomy.

I exemplify Fromm's view on love with the story of Tristan and Isolde. Tristan and Isolde fall madly in love after drinking the love potion and merge into one. Beroul's version of the story describes that the love potion influences Tristan and Isolde to run away.¹⁴⁹ They only have eye for each other and do not see their own suffering and absence of food in the forest. In Beroul's version the love potion loses its effect on the lovers. They regain their freedom to make their own choices with regard to their lifepaths. They decide to go back home.

Beroul's interpretation of the story of Tristan and Isolde, can be seen as a liberation of the agonizing sides of falling and being in love.¹⁵⁰ The decreasing force of the love potion is presented by Beroul as liberation of the addictive forces of falling and being in love. The love potion can be seen as an evil enchantment which makes the two lovers addicted to one another. The two have betrayed King Mark, who they both admire, and have run away which has put them in danger. It is clear from the interpretation of Beroul that we must not support the

¹⁴⁷ Fromm, *The art of loving*, 23-29.

¹⁴⁸ Fromm, *The art of loving*, 23-29.

¹⁴⁹ Gertrude Schoepperle Loomis, *Tristan and Isolt, A study of the sources of the romance*, New York (1970).

¹⁵⁰ Loomis, *Tristan and Isolt*.

enchantment of falling and being in love, which is a stadium of madness and causes misery. Instead of (again) stimulating this love addiction with love drugs, we should outgrow this strong need to only be attached to each other and see what is more in life.

On this account, autonomy is limited when one experiences the strong feelings of falling and being in love. In Sen's terms, the intrinsic value of freedom is *a priori* limited when experiencing these initial feelings. That is to say, that the person in love is limited in her/his ability to choose between different opportunities. Enhancing these initial feelings with love-enhancing techniques, when the level of oxytocin has decreased, can be argued not desirable. Whether the love drug is comparable with a love facilitator or a love potion, one's ability to choose between different opportunities is limited when influenced by love drugs. One's ability to act as an autonomous agent is decreased.

3.3 CONCLUSION

In chapter 3, I examined if love-enhancing techniques are desirable. In light of autonomy, it is questionable if these techniques are desirable. Firstly, because if a love drug is comparable with a love potion, one's love is determined. When autonomy is valued based on the existence of having the freedom to choose between different opportunities, a love potion would limit the experience of autonomy. Secondly, when the strong initial feelings of falling and being in love are *a priori* comparable with an addiction, autonomy is limited despite the specific functioning of love drugs in the act of enhancing love. This is so, because the initial strong feelings experienced in the normal course of life already limit the experience of the intrinsic valuation of freedom. Stimulating these feelings with oxytocin, limits someone's ability to act as an autonomous agent even further.

So, in light of the intrinsic valuation of freedom, it would not be desirable to use love-enhancing techniques when it limits the ability to act autonomously in the field of love. As pointed out earlier (section 3.1), we has human beings are not only determined by the natural order but are able to see ourselves as agents.¹⁵¹ This ability enables us to act autonomously from the forces of the natural order. As autonomous beings we should cultivate the ability to have control over our own behavior and actions.¹⁵² Because in love we desire that our as well as our lovers' love

¹⁵¹ O'Neill, "Kantian ethics", 175-179.

¹⁵² Schneewind "Autonomy, Obligation, and Virtue", 309-312.

is based upon this autonomy, it is more desirable to cultivate the internal disposition of loving which guarantees this autonomy. In chapter 4, it is argued that approaching love in this broader conception is more desirable in light of wellbeing than approaching love in its narrow conception.

4 | Should We Medicalize Love?

*Not knowing how close the truth is to them,
Beings seek for it afar -- what a pity!
They are like those who, being in the midst of water,
Cry out for water, feeling thirst.
They are like the son of the rich man,
Who, wandering away from his father,
Goes astray amongst the poor.*

- Hakuin Ekaku

In the previous chapters, it is highlighted that the proponents argue that it is desirable to enhance love with medicines or gene-therapy because this act would increase the experience of wellbeing. In this chapter, it is analyzed whether this medical approach of love is desirable. In light of the desired aim to increase wellbeing, it is argued that approaching the separation-issue with medical interventions is not morally desirable.

In section 4.1, it is analyzed what medicalization is and how love enhancement is related to medicalization. Furthermore, I will identify the negative effects of approaching the separation-issue in medical terms. It is argued that love enhancement is a medical intervention that reasons from biological ‘reparability’; an intervention that reduces life events to easy-fixable objects. Medicalizing love therefore disregards the complexity and subjectivity of human beings. The proponent’s counterargument is that the specific intervention is not important when evaluating the desirability of love enhancement, rather the evaluation whether the intervention contributes to the experience of wellbeing.

In section 4.2, it is therefore inquired whether the proposed medical intervention is beneficial for the experience of wellbeing. Based on the three theories of wellbeing (mentioned in section 1.3), it is argued by the proponents that love enhancement promotes wellbeing. However, they have not included the capability approach. The capability approach evaluates wellbeing based on the available alternative opportunities someone is able to choose from. This approach respects the subjective and complex lives of individuals. Based on this evaluation of wellbeing, someone’s wellbeing is not increased when taking love drugs, because the available alternative opportunities are lessened. Rather, increasing wellbeing depends on respecting complexity, subjectivity and the ability to freely choose between available alternative opportunities.

4.1 THE MEDICALIZATION OF LOVE

As mentioned in chapter 1, the proponents describe that there is a discrepancy between the ‘desires’ of selfish genes and the desires of human beings. The values in the field of love we regard important are in conflict with the biological drive to procreate. The proponents argue that in order to live happy lives we should counteract the biological drive. In this section, I investigate what this medicalization of love entails and argue that medicalizing love disregards the complexity and subjectivity of human beings. In section 4.2, it is analyzed whether the aim to increase the experience of wellbeing can be fulfilled in the act of enhancing love

4.1.1 Medical Context of Love Enhancement

The objection to the proposal of love enhancement is partly based on the negative effects medicalization could have on how love is experienced and valued. In what follows, I describe the medical context the proponents foresee and exemplify how in such a context a love drug might be used. Accordingly, I give a definition of medicalization and what the medicalization of love entails. Furthermore, I analyze what is regarded morally problematic when love is medicalized.

Earp, Sandberg and Savulescu compare the treatment of a depression with the possible treatment of relationship problems. They argue that in some cases traditional counselling is not able to get someone out of a depression. In these cases, someone is provided medication to experience more happy feelings and enable them to change the aspects of life that contribute to the depression. Accordingly, it is argued that love drugs could have the same function. Namely, to give a couple boost of love to work out some things together. When couple counselling does not have the desired effect, a love drug could motivate the two partners to break through some relationship’ patterns.¹⁵³

The described scenario foresees that love-enhancing techniques function as a love facilitator (see section 3.1). As mentioned previously, it is questionable whether in the future, love-enhancing techniques will only function as a boost of love or that the effects will be comparable with a love potion. But for now, I want to exemplify the medical context of using these techniques the proponents foresee. In a sketched scenario, Earp et al. describe a relationship that is not working as the two partners would desire. They go to a couple counsellor. After a

¹⁵³ Earp, “Natural selection”, 564-565.

couple of sessions, the couple counsellor does not see much progression. The two partners are not able to break through their patterns and are still not able to effectively communicate with each other. The counsellor suggests a nasal spray with oxytocin that is suggested to reduce stress levels and enable the couple to talk to each other more effectively. The two partners decide to take the medicine and become able to break through their patterns. At first, this scenario does not seem problematic. Just like antidepressants are able to treat depression, so could love drugs help communicating and cure relationship problems.

However, the question is whether it is desirable to treat the absence of romantic love in a comparable way. The above described scenario is an example of medicalization. Before analyzing what medicalizing love entails, I provide a definition of medicalization. According to Marcel Verweij, “the term ‘medicalization’ refers to the process that medical terms are used for ‘new’ areas: human behavior, properties, events, and problems which used to be part of normal human life.”¹⁵⁴ Medicalization means that something that previously was described as a nonmedical issue becomes a medical issue.¹⁵⁵ A problem is defined in medical terms and accordingly the problem is treated as a medical issue. That is to say, that medicines or other medical interventions are used to solve the problem.¹⁵⁶ The growing interest in the medical domain has resulted in the adoption of things that belong to the normal course of life. For example, “pregnancy, birth, education, menopause, ageing and death have been redefined as medical problems demanding medical answers and control.”¹⁵⁷

The same goes for the vanishing of love between two partners. Historically, love or the absence of love has not been identified as a medical issue. Love has not been understood in medical terms and the absence or decrease of love has not been treated with medical interventions. Love belonged to the normal course of life. Decreasing love has been considered problematic, but not as something that can be medically treated. In contrast, the proposal of love enhancement understands love in medical terms. That is, research on the hormonal processes of love and the genetic origin of love defines love in biological terms. In these terms, it is argued that decreasing love is caused by selfish genes. These genes do not prioritize the wellbeing of human beings.

¹⁵⁴ Marcel Verweij, “Medicalization as a moral problem for preventive medicine”, *Bioethics* 13, no.2 (1999): 112.

¹⁵⁵ Sven Nyholm, “The medicalization of love and narrow and broad conceptions of human well-being”, *Cambridge Quarterly of Healthcare Ethics* 24, no.3 (2015): 337-346.

¹⁵⁶ Peter Conrad, “Medicalization and social control”, *Annual review of Sociology* 18, no.1 (1992): 210-213.

¹⁵⁷ Verweij, “Medicalization as a moral problem for preventive medicine”, 91.

On this account, it is suggested that in the battlefield of this discrepancy between the ‘desires’ of genes and humans, it is beneficial to counteract those desires. For, these desires limit our ability to live happy lives with the ones we love. Accordingly, it is suggested that when love decreases between two partners, medicines and gene-therapy could treat this decreasing process. The proponents argue that treating partners whose love has decreased is beneficial for their health (see section 1.3). Those who are separated or going through a divorce have a higher risk to heart problems, depression and early mortality.¹⁵⁸ So, the proposal of love enhancement categorizes love as something that can be and is most desirably medically fixed when it decreases. In other words, love enhancement medicalizes love.

4.1.2 The Negative Effects of Medicalization

That said, the question is: what is problematic about the medicalization of love? Verweij states that the consequence of medicalization is “that (healthy) persons tend to adjust their life and life-style according to medical information, advice and procedures.”¹⁵⁹

The intuition that love shouldn’t be approached in medical terms is, according to Nyholm, based on the fact that medicalizing love involves an evaluative category mistake.¹⁶⁰ This means that in the act of enhancing love, love is mistakenly ascribed to the medical domain. Love becomes a means to promote health and happiness, which is beneficial for the experience of wellbeing. However, love is normally not intrinsically valuable on its own and not seen as a means to increase wellbeing. Nyholm therefore concludes that in the act of enhancing love, love is ascribed to the wrong category. As something that is in need of medical intervention in order to increase wellbeing, rather than something that is valuable on its own.

In my opinion, Nyholm is right in pointing out that medicalizing love does not value love as love is normally valued. The proponents of love enhancement do not contradict the intrinsic value of love or see love only as a means to increase wellbeing. In reaction to Nyholm, the proponents state that there might be intrinsic reasons to enhance love. These intrinsic reasons are that love is important as an end in itself. Based on this, it is still possible to enhance love. Accordingly, the intuition that medicalizing love is not desirable is based on other reasons.

¹⁵⁸ Bert N. Uchino et al., “Heterogeneity in social networks: A comparison of different models linking relationships to psychological outcomes”, *Journal of Social and Clinical Psychology* 23, no.2 (2004): 123-139.

¹⁵⁹ Marcel Verweij, “Medicalization as a moral problem for preventive medicine”, *Bioethics* 13, no.2 (1999): 112.

¹⁶⁰ Nyholm, “The medicalization of love”, 337-346.

Freedman argues that medicalization is problematic in some cases, because it disregards the complexity of human beings.¹⁶¹ It reduces human lives to biological objects (bodies) that can be influenced by medical interventions, instead of seeing humans as complex ‘subjects who can be influenced by reasons’.¹⁶² That is to say, that humans are regarded as fixable objects with medical means, rather than as reasonable beings who are able to change their lives based on reasons. So, the intuition that medicalization of normal life events is problematic seems to be based on the analysis that issues are treated as biologically-fixable problems, rather than being approached as the complex problems they in reality are.¹⁶³ In what follows, I analyze this objection when the medicalization of love is concerned. This objection will be called the complexity objection.

4.1.3 The Complexity Objection

In accordance with the complexity objection to medicalization, it is argued that problems in the field of love ought not to be approached as a medical problem, rather it should be approached in its complexity.¹⁶⁴

In light of the complexity objection, love enhancement does not rightfully approach the complexity of the situation. It offers an easy fix, where an analysis of the deeper psychological complexity of the problem and the subjectivity of the individual cases is needed. Understanding an issue as a complex problem examines the underlying processes of love, instead of biologically fixing humans. Changing the biology of individuals with technological means seems to be able to adapt someone’s biology to the romantic idea of love, but does not appreciate the complexity of individual cases of reasonable beings.

To illustrate, the above described scenario (in section 4.1.1) suggests that it is desirable to use love drugs during couples’ therapy when love between two partners has decreased. The drugs could help the partners to break through some problems they have. But what are the consequences when such a love drug is taken? The partners might experience the feelings of

¹⁶¹ C. Freedman, “Aspirin for the Mind? Some Ethical Worries about Psychopharmacology”, In Erik Parens (ed.), *Enhancing Human Traits: Ethical and Social Implications*, Washington, DC: Georgetown University Press (1998).

¹⁶² Erik Parens, “On good and bad forms of medicalization.” *Bioethics* 27, no.1 (2013): 28-35.

¹⁶³ Brain D. Earp, Anders Sandberg, and Julian Savulescu, “The Medicalization of Love.” *Cambridge Quarterly of Healthcare Ethics* 24, no. 3 (2015): 329.

¹⁶⁴ Parens, “On good and bad forms of medicalization.” 28-35.

falling and being in love like they experienced in the first years of their relationship, or they might even experience these feelings for the first time. Their biology has been adapted to the romantic idea of love. But what about the underlying subjective desires of the individual partners? Are these feelings suppressed by the love drugs? And what about the interwoven psychological processes between the two partners, are these complex processes reduced to sensations produced by oxytocin? Just like MDMA gives a short-term feeling of pleasure?

The proponents are not convinced that based on the complexity objection it would be not desirable to medicalize love.¹⁶⁵ They have reacted to the concern of approaching a complex problem as something that can be biologically fixed.¹⁶⁶ They argue that the specific intervention is not the most important determinant to evaluate whether it is morally desirable to enhance love. Rather, the desirability depends on the evaluation whether it improves someone's wellbeing or not.¹⁶⁷ On this account, they argue that it is desirable to enhance the feelings of falling and being in love.

In the next section, I question this conclusion. It is argued that wellbeing is not independent of the involved intervention. Love-enhancing techniques limit someone's ability to act otherwise. To freely choose between different opportunities. On this account, it is argued that the complexity and subjectivity of partners in a relationship needs to be acknowledged in order to fulfill the aim of wellbeing.

4.2 THE AIM TO INCREASE WELLBEING

In this section, it is evaluated whether the medical approach is the most adequate intervention when the aim is to increase wellbeing. The analysis of someone's wellbeing depends on the specific theory of wellbeing that is applied. The proponents argue that love enhancement is desirable in light of the hedonistic theory, desire-fulfillment theory and objective list theory of wellbeing. But what about the evaluation of wellbeing based on the capability approach? It is argued that the capability approach questions the desirability of approaching the separation-issue as a medical issue. When love-enhancing techniques are used, someone's ability to freely choose between different opportunities is reduced. In contrast with the theories used by the proponents, the capability approach questions the desirability of love enhancement.

¹⁶⁵ Earp, "The Medicalization of Love", 223-233.

¹⁶⁶ Earp, "The Medicalization of Love", 329-330.

¹⁶⁷ Earp, "The Medicalization of Love", 330.

We should respect the subjectivity and complexity of individual situations. This contributes to the experience of wellbeing in the field of love. I argue that it is more desirable to expand someone's ability to freely choose between different opportunities, than to use love-enhancing techniques.

4.2.1 The Capability Approach

In this section, the capability approach is applied to the proposal of love enhancement. First, the capability approach is defined. Secondly, the proposal of love enhancement is analyzed by pointing to the notion of intrinsic freedom and respecting the complexity and subjectivity of human beings. It is argued that the proposal of love enhancement does not contribute to an increase of wellbeing, when the capability approach is applied.

As mentioned in section 1.3, the proponents value different theories of wellbeing. The hedonistic theory of wellbeing suggests that happiness is the most important indicator for wellbeing. The desire-fulfillment theory describes that wellbeing is promoted when desires are fulfilled. In order to contribute to the experience of wellbeing, it is important that a desire is well-informed and freely formed. Based on the objective list theory an intervention is evaluated desirable when certain objective goods are accomplished. Personal relationships are for example valued by an objective list theory of love.¹⁶⁸ In short, love drugs contribute to wellbeing if both partners desire to take it, the love drugs provide them to lead happy lives and lives which are objectively valuable. By doing so, the proponents attempt to include the three theories distinguished by Parfit.¹⁶⁹ They argue that because each of the three theories has its own problems, a combination of the theories provides an adequate guideline to evaluate the presence of wellbeing.¹⁷⁰

However, the combination of the three theories does not solve the problem that all theories focus only on achieving ends. Not on the analyses whether someone is able to fulfill his desires and to accomplish the objective goods and mental states. Sen argues that the analysis of wellbeing must rather be based upon whether someone is able to achieve those ends.¹⁷¹ That is

¹⁶⁸ Savulescu, "Neuroenhancement of love and marriage", 39.

¹⁶⁹ Parfit, *Reasons and Persons*.

¹⁷⁰ Savulescu, "Neuroenhancement of love and marriage", 39.

¹⁷¹ Sen, "Development as capability expansion", 42-44.

to say, instead of just focusing on the achieved ends (mental states of happiness, fulfilled desires and mode of beings based on objective lists), the evaluation of someone's wellbeing has to depend on a person's capabilities to achieve those ends.¹⁷² This evaluation of wellbeing is called the capability approach.

The capability approach intrinsically values freedom. This means that a person is free when he/she is able to choose between different opportunities (see section 3.2). A person's wellbeing depends on whether one is able to freely choose certain 'doings and beings' out of alternative available sets of 'doings and beings'; that is to say, when one has the ability to exercise a set of capabilities.¹⁷³ Based on this account of freedom, it is questionable whether love enhancement increases the experience of wellbeing. As mentioned in section 3.2, when love drugs are used, the ability to act as an autonomous agent is limited. This entails that a person is less able to freely choose between alternative 'doings and beings'. Rather, the feelings of falling and being in love cause the focus on one person. Alternative 'doings and beings' are out of the scope of the person in love.

Moreover, the capability approach respects human beings in their subjectivity and complexity, because the specific capabilities that a person needs differ among human beings.¹⁷⁴ Moreover, the capability approach evaluates a person's wellbeing based on the subjectivity and complexity of a certain situation, instead of, for example, offering an objective list that is supposed to be applicable to all human beings. The proposal of love enhancement suggest that the ends are more important than the capabilities to reach these ends. These ends can be mental states, fulfilled desires or modes of being based on objective lists. However, these ends do not consider the subjectivity and complexity of situations.

So, although the proponents argue that love enhancement is able to contribute to the experience of wellbeing regardless of the applied theory, based on the capability approach it is questionable whether this is the case. The proponents state that if both partners desire to take the love drugs, it helps them to lead happy lives and lives which are objectively valuable. In light of the aim to increase an objective notion of wellbeing it is desirable to take the love drugs. But this combination of the three theories of wellbeing does not include an evaluation of the available

¹⁷² Amartya Sen, "Capability and well-being", *The quality of life* (1993).

¹⁷³ Sen, "Development as capability expansion", 43-44.

¹⁷⁴ Sen, "Development as capability expansion", 42.

capabilities to reach these ends when a love drug has been used. It is argued that when people take a love drug the ability to exercise different ‘doings and beings’ is reduced. In comparison with those who did not take a love drug, the ability to freely choose between different opportunities is limited. In other words, in light of the capability approach love enhancement does not contribute to the increase of wellbeing regardless of which theory is applied.

4.2.2 Cultivating the Internal Disposition of Loving

In this section, I strengthen this argument by pointing to the broad conception of love. It is argued that it is not desirable to enhance the narrow conception of love when one wants to promote the experience of wellbeing. In light of wellbeing, cultivating the internal disposition of loving is able to establish the ability to choose between different opportunities, while at the same time counteracting the separation-issue.

Enhancing the narrow conception of love entails that the feelings of ‘falling and being in love’ are stimulated. That is to say, the firm attachment between two persons is established. As pointed out in chapter 3, this act enforces the desires of human beings to unify with one person. When the feelings of ‘falling and being in love’, that are associated with romantic love decrease, the experience of unity vanishes.¹⁷⁵ Because the experience of being alone occurs, people wish for the same kind of unification. In this course, one is not able to sustain the internal disposition of loving but needs someone else to generate this feeling of loving. So, when the internal disposition of the ability to love is not grounded, one has to search for love over and over and over.¹⁷⁶

In the act of enhancing love, this course is reinforced with technological means. With the use of love drugs, two people will once again feel attached to one another. They become united to each other again and are freed from the feelings of being alone (that occurred when the initial strong feelings in the first period of the relationship disappeared). Imagine that Isolde and Tristan decide to stay together after the love potion had lost its power. Mark remarried with another woman, who he liked more. Just like normal marriages, Tristan and Isolde experience some trouble because they no longer feel as attached as they used to. They do not want to separate, so they decide to attend couples’ therapy. After a few sessions, the therapist offers

¹⁷⁵ Fromm, *The art of loving*, 20-27.

¹⁷⁶ Fromm, *The art of loving*, 23.

them a nasal spray with oxytocin. They experience the same love as they did and become inseparable again. Is this the happily ever after? Is their wellbeing increased?

In this act the desire to unite is fulfilled. Tristan and Isolde regain their close attachment to each other. This act reflects the dependence on one another to experience love. The other person and the love drugs are needed to generate love. Being together becomes the most important state of being. We could say that falling and being love, and additionally the stimulation of these feelings with love drugs, makes us ignorant for the love for oneself and other persons or creatures besides our lover. On Fromm's account this would be problematic.

But what is it exactly that makes this unification with one person problematic? The answer to this question can be found in the capability approach. In the act of using the love drugs, the complexity and subjectivity of the individual situation is reduced to the narrow conception of love, to the feelings of falling and being in love. The created unification limits one's ability to rationally reflect upon the reasons to love.¹⁷⁷ When a person becomes unable to rationally reflect on these reasons, one loses the ability to choose alternative 'doings and beings' if one pleases. One is deprived of the ability to see different opportunities and choose another set of capabilities.

Rather than limiting a person's capabilities, wellbeing is increased when the ability to freely choose between different 'doings and beings' is developed. When the complexity and subjectivity of each situation is respected. In my view this can be done through cultivating the broad conception of love. Fromm argues that love is more than having a relationship with one person.¹⁷⁸ Love is a life attitude, that is not limited to emotions directed to one person, but that reflects one's commitment to the whole world.¹⁷⁹ Rather than limiting the experience of love to one person, we should learn to broaden our love.¹⁸⁰ Love has to entail the love for oneself, for your neighbor, for life, for oneness or transcendence.¹⁸¹ We should cultivate love for the general. This can be interpreted as cultivating love for oneself, for others, for the world etc. In this case, love is not limited to one person, but is broadened.

¹⁷⁷ Schaubroeck, "Loving the lovable", 108-124.

¹⁷⁸ Fromm, *The art of loving*, 62.

¹⁷⁹ Fromm, *The art of loving*, 62.

¹⁸⁰ Fromm, *The art of loving*, 62-98.

¹⁸¹ Fromm, *The art of loving*, 62-98. Fromm speaks of love for God. But in his elaboration he continues that love for god entails love for oneness or something transcendence.

This cultivation of the internal disposition of the ability to love is attained through personal growth.¹⁸² Through personal growth one is able to deepen and broaden the experience of love. Outgrowing the initial feelings of falling and being in love enable us to experience freedom from these instinctual feelings.¹⁸³ If the aim of the proponents is to increase wellbeing, we should instead of stimulating these biological processes rationally liberate ourselves. Through cultivating the internal disposition of the ability to love oneself, others and the world in general. Maybe this cultivation of loving is what really enables the freedom of the ‘desires’ of selfish genes and accordingly enables us to freely choose to be together in a relationship. Maybe this could support people to be together based on a broader conception of love, that respects complexity, subjectivity, reasonability and autonomy...

4.3 CONCLUSION

In chapter 4, the desirability of approaching the separation-issue as a medical issue in light of the desired experience of wellbeing is questioned. It has been examined what the medicalization of love entails and what the negative effects of such an approach are. Medicalizing love disregards the complexity and subjectivity of human beings. Love enhancement reduces life events to easy-fixable objects. The proponent’s counterargument is that the specific intervention is not important when evaluating the desirability of love enhancement, rather the evaluation whether the intervention is beneficial for the experience of wellbeing.

On this account, it is analyzed if the medical approach of love contributes to the experience of wellbeing. In section 4.2, it is argued that the capability approach questions the desirability of approaching the separation-issue as a medical issue. When love-enhancing techniques are used the subjectivity and complexity of problems are simplified and someone’s ability to freely choose between different opportunities is reduced. In light of the capability approach, love enhancement does not contribute to the increase of wellbeing. On this account, the proponents’ argument that love enhancement increases wellbeing, regardless of the specific theory that is used, is contradicted. Furthermore, it is argued that it is not desirable to enhance the narrow conception of love when one wants to promote the experience of wellbeing. In light of wellbeing, cultivating the internal disposition of loving is able to respects the complexity and

¹⁸² Fromm, *The art of loving*.

¹⁸³ Irving Singer, *Meaning in life: The pursuit of love*, Cambridge: MIT Press (2009): 30.

subjectivity of the lives of human beings and establish the ability to choose between different opportunities. In other words, instead of approaching the separation-issue as a medical issue, we should cultivate the broad conception of love.

Conclusion

*The real voyage of discovery consists not in seeking new landscapes,
but in having new eyes.*

- Marcel Proust

In the previous chapters, I have reflected on the question if it is morally desirable to use love-enhancing techniques in a medical context when the aim is to increase the experience of wellbeing. I have done so by raising three questions: is the proponents' conception of love a desirable conception; are the proposed means of love enhancement desirable; when the aim is to increase wellbeing is the proposed approach desirable? These questions have been answered in the chapters of this thesis.

Is the proponents' conception of love a desirable conception? I have argued that the proponents' conception of love enhancement is a narrow conception of love. That is a conception of a long-lasting romantic loving monogamous relationship. If this conception is in danger, it is arguably desirable to technologically control this love. In reaction, I have argued that this conception does not rightfully assess love. Therefore, a broader conception is more desirable. This conception values the cultivation of the internal disposition of loving, instead of creating this internal disposition with technological means.

The correctness of this evaluation depends on the analysis if a love drug is comparable with a love facilitator or a love potion: *are the proposed means of love enhancement desirable?* It is argued that in the future a love drug that functions as a love potion is not unimaginable. For, the possibilities of technological interventions are considerable. On this account, it is questionable whether in light of autonomy these love-enhancing techniques are desirable. However, I have pointed out that this argument is not strong enough, because we cannot argue with certainty that such a love potion will be developed. It is argued that there is something more crucial at stake. Namely, that even a love facilitator has a negative effect on autonomy. Stimulating the strong feelings of falling and being in love by the enhancement of oxytocin is comparable with stimulating an addiction. Someone's ability to act as an autonomous agent is limited when stimulating these feelings.

Lastly, it is analyzed whether the medical approach of the proposal of love enhancement is a desirable approach: *when the aim is to increase wellbeing is the proposed approach desirable?* The proponents argue that in light of wellbeing it is desirable to counteract the separation-issue and accordingly medically treat love when it decreases. The objection to this kind of medicalization is that the complex subjectivity of human beings is disregarded. In reaction to this objection, the proponents have argued that the desirability of the specific intervention is of secondary importance. Rather, the desirability of love enhancement depends on whether it increases wellbeing. So, the desirability of love enhancement depends on the theory of wellbeing that is applied. Although the proponents have argued that based on the combination of three theories of wellbeing love drugs could be judged desirable, it is in light of the capability approach not desirable to use love-enhancing techniques. Because love drugs reduce one's ability to freely choose between sets of available alternative capabilities. In addition, it is argued that the enhancement of the narrow conception of love risks limiting love to one person. Rather, the cultivation of the internal disposition of the ability to love enables one to experience wellbeing according to the capability approach.

So, is it morally desirable to use love-enhancing techniques in a medical context when the aim is to increase the experience of wellbeing? Throughout this thesis, it is argued that the use of the proposed love-enhancing techniques misses out on an important aspect of love. That is, the internal disposition of the ability to love. The enhancement of the proponents' narrow conception of love limits one's ability to act reasonable and autonomous and disregards the complexity and subjectivity of individual situations. When the aim is to increase wellbeing, human beings need to be respected in their ability to act autonomous, their ability to reflect upon the reasons to love and their complexity and subjectivity. In other words, liberation from the biological limitations evolution possess on us is most desirably accomplished by respecting humans as the reasonable, autonomous, complex and subjective beings they are. Therefore, I conclude that it is not desirable to use love-enhancing techniques in a medical context when the aim is to increase wellbeing.

This conclusion implicates that instead of using love-enhancing techniques in the field of love, we should inquire other options that contribute to the experience of wellbeing. I have argued that cultivating the internal disposition of loving is able to respect the above described values. So, when the aim is to increase wellbeing it is worthwhile to investigate the options to cultivate

this internal disposition. A lot of research has been done on this topic. For example, psychological research has shown that the development of ‘self-compassion’ contributes to the experience of wellbeing.¹⁸⁴ Developing self-compassion entails that one becomes able to cultivate love for oneself and likewise is able to experience love for others. In other words, self-compassion supports the cultivation of the internal disposition of loving. Further research needs to be done whether courses that support the development of self-compassion and other psychological interventions are able to counteract the outlined separation-issue.

Furthermore, I want to react on a possible counterargument of the proponents on this thesis. The above developed argument is based on the analysis that the proponents’ conception of love contains a biased outlook on what love is and ought to be. They could counterargue that my argument, in favor of cultivating the internal disposition of loving, is likewise biased. They could be right in pointing this out. My account and the proponents’ account have different starting points when it comes to the conception of what love is and ought to be. Yet, in contrast to the proponents’ aim, my aim has not been to give a neutral universal account on love. Rather, I have attempted to show what the proposal of love enhancement misses out on when it comes to love.

However, the proponents could argue that love enhancement could in the future include a medical intervention that generates the internal disposition of generally loving. When such an intervention is invented it could be argued that the values: autonomy, reasonability, complexity and subjectivity are safeguarded. Consequently, it might be judged desirable to enhance love. Despite the possibility of such an invention, love enhancement would still miss out on something important; the autonomy to act otherwise when the love drugs has been taken. Besides, as I have noted earlier, it is not certain what the future will bring. We cannot foresee what kind of medical love interventions will be designed. Therefore, I conclude that my argument focusses on the proposal of love enhancement that has been developed. And this proposal holds a narrow conception of love and enhancing this conception does not respect the cultivation of the broad conception of love. On this account, love enhancement is not desirable.

¹⁸⁴ Kristin D. Neff, Stephanie S. Rude, and Kristin L. Kirkpatrick, “An examination of self-compassion in relation to positive psychological functioning and personality traits”, *Journal of research in personality* 41, no.4 (2007): 908-916.

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