"How nice that I could love someone"

AI replacing deceased loved ones in film

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Abstract

Research shows that media have a big impact in the way humans think about life. We mostly learn how to handle social situations using our own and others' life-experiences, however, film and other media also plays a big role. This thesis investigates the way film informs our ideas about the future. Especially about a future where a loved one is replaced by something non-human which looks and acts human. Science fiction movies present fantastical situations in which humans interact with aliens, robots, holograms, artificial intelligence and so on. Nowadays, interacting with an artificial human looking entity is no longer a distant future. What happens to our understanding of life, ourselves and our relationships with others when we are able to build intimate relationships with an artificial intelligent human looking entity? And what happens when this entity is an exact replica of a deceased partner? This thesis examines the composition of the film *Marjorie Prime (2017)* and the episode *Be Right Back (2013)* from the series *Black Mirror* (Charlie Brooker) using a neoformalistic approach and rhetorical method of analysis to find out how these films are set up to convey a message and affect the spectator. This thesis argues that film can trigger critical thinking about human-machine relationships and can contribute to robophilosophy by analyzing film as virtual laboratories.

Keywords: human-machine interaction, artificial intelligence, humanoid robots, anthropomorphism, partnership, science fiction, *Marjorie Prime, Be Right Back*, loss, neoformalism, rhetorical analysis

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Introduction

Imagine yourself being a little older than you are now. It is 2019 and you are somewhere between seventy and eighty years old. Like you, your friends are becoming less and less mobile, some of them can't even get out of their house anymore. Your family is busy with their own lives and rarely come to visit you. Sadly, your partner recently passed away. You are feeling very lonely. As a solution your family gave you a mobile phone and made you a Facebook account so you can see how they are doing at any time, but you barely understand how it works. Then the phone dies and once again you are alone. As sad as it is, these are things that happen when you grow old in present times. Luckily, a new friend is being developed. It is ElliQ. "ElliQ is the proactive Artificial Intelligence driven social robot designed to encourage an active and engaged lifestyle by suggesting activities and making it simple to connect with loved ones."[1] ElliQ keeps the elderly engaged in modern life through playing board games with them or by suggesting a walk. At present, artificially intelligent robots are the solution to the lonely elderly.

Maybe this sounds familiar to you. Like Alexa and Google Home, ElliQ is a robot that you put on your side table and sounds human in her speech and conversations, only ElliQ is specialized for the elderly.[2] This robot does not look human but has human features, such as a 'head', a body, a woman's voice and is referred to as a 'she'.[3] Now, imagine the previous scenario in 2069. You are old, your partner has passed away and you are feeling lonely. You would like to have a buddy. An advertisement catches your attention. You can order an artificial intelligence product that looks exactly like your deceased partner who learns to behave like them by analyzing their social media pages and by interacting with you. It feels like your partner never died. An immortal version of your loved one means you will never have to feel alone anymore, or will you?

This is exactly what the film *Marjorie Prime* (Michael Almereyda, 2017) and the episode *Be Right Back* (Black Mirror, Charlie Brooker, 2013) present; living with an AI replica of a loved one that has passed away. *Be Right Back* shows this does not only apply to the elderly, but also to younger people who have lost their partner early in their adult life. Post-humanistic scenarios with robots or Artificial Intelligence imitating humans is recurringly explored in science fiction films like *Metropolis* (1927), *Westworld* (1973), *AI* (2001), *Her* (2013), *Ex Machina* (2014), *Zoë* (2018). This is not coincidental since Michael Hauskeller, Thomas D. Philbeck and Curtis Carbonell state that there has been an increasing shift in popular consciousness about posthumanism and robots and that this "is due to [popular] arts that mirror and disseminate visions of our possible futures."[4] In essence, we

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[1] ElliQ, features, Intuition Robotics, accessed on January 19, 2019.
https://elliq.com/?gclid=EAIaIQobChMIsZuJxMLb3wIVFeh3Ch1peA7rEAAYASAAEgIFTfD_BwE
[2] Google Home, Google, overzicht. https://store.google.com/nl/product/google_home
[3] *Beta User's Testimonials*, accessed on February 10, 2019. https://elliq.com/
[4] Michael Hauskeller, Thomas D. Philbeck and Curtis D. Carbonell, *The Palgrave Handbook of Posthumanism in Film and Television* (Palgrave Macmillan, Apple Books), p. 45.

already live in the science fiction from the past.[5] Film and television, especially, play a crucial role in the perspective of the masses about the development of technological friends and the relation between human and robot. Events in science fiction ask us to play with reality and our world, to wonder what it might become.[6] They show possible relationships between artificial intelligence and humans, evoking questions that have become increasingly relevant as of late.

Attributing human features to technology changes the relation between man and machine.[7] As mentioned before, science fiction films can prepare us for possible futures. Understanding the socio-cultural effects of attributing human features to machines helps us form critical perspectives about the human-machine relationship. Because of this, I will research how *Marjorie Prime* and *Be Right Back* are constructed to convey a message about relationships between humans and artificial intelligence and how they persuade us to form a critical view on this issue. I specifically choose these films because both are about replacing deceased and loved humans with almost perfect artificial intelligent copies. Both are confronting the real with the artificial, however in a completely different cinematic style. The main question for this research is: *How does* Marjorie Prime *and* Be Right Back *present artificial intelligence as a potential replacement for lost partners and contribute to our perspective on human copying AIs in society?* In order to answer this question I will answer two sub-questions. Both sub-questions focus on the characteristics of cinematic storytelling of each film specific. This way, the films can best be analyzed for their content. The first is *how does duplicity and reflection in* Marjorie Prime *inform our ideas of replacing passed away partners by artificial intelligence*? The second question follows *how does discrepancy and realism in the episode* Be Right Back *from* Black Mirror *form our ideas of replacing deceased partners by artificial intelligence?* After having answered these two sub-questions I will be able to answer the main question.

Former textual and empirical research shows that science fiction films influence our way of thinking about human-machine relationships.[8] In this thesis I carry out a textual analysis as well, but with a neoformalistic approach and a rhetorical method. More precisely, I will specifically dive into science fiction using anthropomorphistic artificial intelligence instead of robotic science fiction in general, because anthropomorphism attracts human interaction to AI and robots. To do so I will first give an overview of the research to science fiction and human-machine interaction. Because human-machine relationships are based on *anthropomorphism* (the humanization of objects), I will dive further into the pros and cons of this concept. Since I am specifically researching the intimate

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[5] Ron Rijghard, 'Misschien kan het: een relatie met een robot?' *NRC*, March 6, 2019, accessed on May 26, 2019.
https://www.nrc.nl/nieuws/2019/03/06/misschien-kan-het-een-relatie-met-een-robot-a3919949

[6] Idem.

[7] Hugo Zijlstra, *Equality for All: Discursive Anthropomorphic Framing in Social Robotics,* master thesis New Media & Digital Culture, supervised by Dr. René Glas, 2nd Reader: Dr. Imar de Vries. Utrecht University, 2017, p.5.

[8] Michael Hauskeller, Thomas D. Philbeck and Curtis D. Carbonell, *The Palgrave Handbook of Posthumanism in Film and Television* (Palgrave Macmillan, Apple Books).
Laurel D. Riek, Andra Adams and Peter Robinson, *Exposure to Cinematic Depictions of Robots and Attitudes Towards Them* (University of Cambridge).

relationship of a loved one the AI has replaced I will elaborate on the effects of loss and the feeling of needing to fill the gap of loss and loneliness after someone has passed away. To then come to the point where an anthropomorphic AI that is supposed to fill this gap creates the feeling of the *uncanny valley,* one of the main themes of both *Marjorie Prime* and *Be Right Back.*

In order to answer the main- and sub-questions, I will perform a neoformalistic rhetorical analysis on both *Marjorie Prime* and *Be Right Back.* Neoformalism is an approach to film analysis grounded by Kristin Thompson which focuses on what a specific film is calling for and allows for the adjustment of the method to the needs of the film. In this case both films ask for a rhetorical analysis; a method analyzing the way a film is set up to convey a certain perspective or message. However, *Marjorie Prime* asks for a rhetorical focus on deceit and reflection and *Be Right Back* for rhetorical focus on a discrepancy and realism, respectively.

In the first chapter I will clarify the theoretical context and field of this research. More precisely, I will elaborate on the following matters: recent research on the presentation of posthumanism in science fiction movies, the occurrence of AI's in these movies, the influence of anthropomorphism on human relations with robots and AI's and the way humans cope with loss, loneliness and replacement. In chapter two, I will outline the specifics of the rhetorical method I am going to use to find the answers for my main- and sub-questions. Chapter three and four are dedicated to the analysis of first Marjorie Prime and then Be Right Back. I will conclude comparing the cinematic style of *Marjorie Prime* to that of *Be Right Back* answering the main question: 'How does *Marjorie Prime* and *Be Right Back* present artificial intelligence as a potential replacement for lost partners and contribute to our perspective on human copying AIs in society?' and referring this to the theoretical framework in chapter 1. At last, I will evaluate the used research method and suggest for further research to film as a medium to stimulate critical thinking about human-machine relationships.

1. Theoretical Framework

In this chapter I briefly provide context to the set of this research laying out the current state of research into science fiction film and the importance of its position within robostudies (1.1). Because I am focussing particularly on human-machine relationships which are based on anthropomorphism, I will delve further into the pros and cons of anthropomorphism (1.2). Since I am specifically researching the intimate relation of a loved one that the AI is supposed to replace, I will elaborate on the effects of loss and the need to fill the gap of loss and loneliness after someone has passed away (1.3). These effects of loss and the need of filling the gap with anthropomorphic AI, evoke the uncanny valley. After all of the above, I will be able to show how both *Marjorie Prime* and *Be Right Back* convey a message about how AI replacements affect human behavior and relationships (chapter 3 and 4).

1.1 Science fiction

As I briefly introduced before, science fiction movies tend to play a big part in our creation of future fantasies and set a basis for technological developments. In contrast to everyday life, where we filter out everything that is not helping us to achieve our goal, films and other artworks plunge us into a non-practical, playful type of interaction, renewing our perceptions and mental processes because they hold no immediate practical implications for us.[9] *Metropolis* (1927), *Westworld* (1973), *The Terminator* (1984), *Star Wars* (1999-2017), *A.I.* (2001), *WALL-E* (2008), *Her* (2013), *Ex Machina* (2014), *Big Hero 6* (2014), *Lucy* (2014), *Westworld* (series, 2016-now), Zoe (2018), *I AM MOTHER* (2019) and others, all suggest ideas to enhance technology to make our fantasies come true and show the possible dangers that come along with it. According to Michael Hauskeller, Thomas D. Philbeck and Curtis Carbonell there has been an increasing shift in popular consciousness concerned with posthumanism and robots, "due to [popular] arts that mirror and disseminate visions of our possible futures."[10] It is "a matter of art mimicking life and life mimicking art."[11] Due to their medium, sci-fi film relies on the visualization of the "unimaginable, unrepresentable, unthinkable."[12] Spectacles in sci-fi ask us to play with reality and our world, to wonder what it might become. They provide an opportunity to broaden our imagination.[13] Not coincidentally, all of the aforementioned movies show possible relationships between humanoid robots and humans, and evoke questions that have become increasingly relevant as of late. Since technology is developing at a great speed,

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[9] Kristin Thompson, *Breaking the Glass Armor* (Princeton University Press, 1988), p. 8.
[10] Hauskeller, Philbeck and Carbonell, p. 42.
[11] Idem.
[12] Alexander Darius Ornella, "Uncanny Intimacies: Humans and Machines in Film" in Th*e Palgrave Handbook of Posthumanism in Film and Television* edited by Michael Hauskeller, Thomas D. Philbeck and Curtis D. Carbonell, Palgrave Macmillan, Apple Books, p. 651.
[13] Hauskeller, Philbeck and Carbonell, p. 42.

people like to speculate about the probable impact on their life. These films show post-humanistic scenarios with possible results of robots or artificial intelligence (AI) that act like humans.

To find out what film and television tell us about the forms and effects of posthumanism, Hauskeller, Philbeck and Carbonell filled their *Palgrave Handbook of Posthumanism in Film and Television* employing textual analysis of all kinds of films and series. For example, in his chapter *Onscreen Ontology: Stages in the Posthumanist Paradigm Shift* Philbeck notes seven stages in the posthumanist paradigm based on textual analysis of individual films, television shows, literature, news, and scholarly publications.[14] Starting from the 1960's when posthumanism is mostly characterized by desire and fear, to 2014 where the 1960's questions of whether society ought to have these technologies are nowhere to be found. Where "posthumanist subjectivities announce their existence as a given, decentralizing the experience of humans as individual subjects."[15] Another example is Alexander Darius Ornella's *Uncanny Intimacies: Humans and Machines in Film* in which he explored recent themes in representing human–machine relationships on screen and states that "we can understand sci-fi film and TV to provide an important ethical laboratory to (re)imagine and play with human-machine relationships, modes of being human or understandings of human nature."[16]

Not only qualitative research supports the claim that films about robots and AI affect our way of thinking about human-machine relationships, empirical studies also show evidence that confirm this.[17] A study from Laurel D. Riek, Andra Adams and Peter Robinson surveyed 287 people on their attitudes towards robots after having seen certain fictional films portraying robots. They conducted two within-subjects studies, one in person at a Secret Cinema screening in London where participants saw *Bladerunner* (1982) and one online questionnaire both using two measures. One was assessing negative attitudes towards robots via a five point attitudinal scale with three subscales: "'negative attitudes towards emotions in interaction with robots,' 'negative attitudes towards the social influence of robots,' and 'negative attitudes toward situations of interaction with robots'."[18] The second measure asked which of the twelve films starring robot protagonists they had seen. Half of the films where positive and the other half negative.[19] Their main findings suggest that there is a relationship between the amount of viewed robot movies and the positivity in their attitudes towards robots. Especially after watching positive portrayals of robots and NARS scores, the participants had a more positive attitude towards human-robot interaction (HRI).[20]

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[14] Thomas Philbeck, 'Onscreen Ontology: Stages in the Posthumanist Paradigm Shift' in *The Palgrave Handbook of Posthumanism in Film and Television* by Hauskeller, Philbeck and Carbonell, p. 758.

[15] Idem, p. 770.

[16] Ornella, p. 661.

[17] Several studies researching human-machine relationships, specifically studying robots, refer to this relationship as the human-robot relationship or human-robot interaction (HRI). Since I am investigating a broader definition of machines, mainly AI in different human looking forms like holograms and an artificial human body instead of robots alone, I will refer to the relationship between humans and such AI forms, the human-machine relationship. In my opinion, the word 'machine' covers the current case better than the word 'robot'.

[18] Laurel D. Riek, Andra Adams and Peter Robinson, *Exposure to Cinematic Depictions of Robots and Attitudes Towards Them* (University of Cambridge), p. 2.

[19] Idem.

[20] Idem.

Together, Hauskeller, Philbeck and Carbonell, Riek, Adams and Robinson and Ornella argue reasonably with qualitative and empirical research approaches that robot representation in film and television influence our thoughts about and attitudes towards robots in society and with that our relation to robots. But the question remains: how do films construct their product to get this effect?

Based on the former, I would like to broaden our knowledge of understanding film and its effects. By means of doing a neoformalistic textual analysis focused on human-machine interaction based on anthropomorphism and the uncanny valley I want to contribute to robostudies. At the moment, research projects within the Robotics, Computer Science, Philosophy and Humanities, among others, show that robots and the position they occupy in our society are a pertinent issue. After all, robots and artificial intelligence are expected to be a big part of our future society:

> We live in a technological world. Understanding the relationship between man and technology is therefore more important than ever.[21]

> Since social robots present a new type of social agent, they have been aptly classified as a disruptive technology, [...] Due to its disruptive and innovative potential, social robotics raises not only questions about utility, ethics, and legal aspects, but calls for "robo-philosophy" – the comprehensive philosophical reflection from the perspectives of all philosophical disciplines.[22]

The Aarhus University in Denmark even started a special Research Unit for Robophilosophy (RUR) in 2012. Robophilosophy "is an new area of interdisciplinary and partly experimental philosophy" integrating research methods from Humanities and Human Sciences into social robotics research and engineering.[23] As Aarhus University states that

> After a decade of interdisciplinary research into social robotics and Human-Robot Interaction (HRI) we still lack a clear understanding and regulative directives for *how to ensure that social robotics will contribute to a community's resources for human well-being*—to the practices in which members of a community experience justice, dignity, autonomy, privacy, security, authenticity, knowledge, freedom, beauty, friendship, sensitivity, empathy, compassion, creativity, and other socio-cultural core values, as these may be shared, or vary, across cultures. [...] topically relevant research submissions *from any discipline* are welcome.[24]

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[21] Max Koedood, *Spelen met Vuur – Postfenomenologie in de tijd van de cyborg*, bachelor thesis philosophy, guided by Dr. Maren Wehrle and advised by Prof. Dr. J.J. Vromen, Erasmus Universiteit Rotterdam.
[22] Johanna Seibt, Raul Hakli, Marco Nørskov, *Ebook: Sociable Robots and the Future of Social Relations,* IOS Press, 2014, description. http://ebooks.iospress.nl/volume/sociable-robots-and-the-future-of-social-relations-proceedings-of-robo-philosophy-2014
[23] Robophilosophy, Welcome to RUR, *Aarhus University,* accessed on Jan. 7, 2019. http://projects.au.dk/robophilosophy/
[24] Robophilosophy Conference, International Research Conference Robophilosophy 2020: Aarhus, Denmark, August 18-21, 2020, *Aarhus University,* accessed on Dec. 30, 2019. https://conferences.au.dk/robo-philosophy-2020-at-aarhus-university/

The upcoming Robophilosophy Conference in 2020 specifically invites Humanities researchers to explore in detail "how the Humanities can contribute to shaping a future where social robotics is guided by the goals of enhancing socio-cultural values rather than mere utilities."[25] "Once we place so-called 'social robots' into the social practices of our everyday lives and lifeworlds, we create complex, and possibly irreversible, interventions in the physical and semantic spaces of human culture and sociality. The long-term socio-cultural consequences of these interventions is currently impossible to gauge."[26] I think that a good starting point is to investigate the understanding of ideas about the future of human-machine relationships presented by film and the understanding of how film uses cinematic styles to convey these ideas and stimulate critical thinking to lay a basis for investigating what might happen when humans interact with technological entities. For questioning notions of what is 'natural' and 'artificial', and the relationships between the two, it is useful to understand what artificial intelligence is and how its relationship with humans is enhanced.

1.2 Artificial intelligence and anthropomorphism

Artificial Intelligence is the development of computer systems able to perform tasks normally requiring human intelligence, such as visual perception, speech recognition, decision-making, and translation between languages.[27] Attributing human characteristics to non-human entities positively impacts human-machine interactions and is referred to as anthropomorphic design.[28] *Anthropomorphism* is the innate tendency of the human psychology to see human forms in non-human objects, like faces on cars and human or animal shapes in clouds.[29] Hugo Zijlstra discusses several authors like Kate Darling, Peter Paul Verbeek, Sherry Turkle and Lee Worth Bailey presenting the current perspectives on anthropomorphism and AI. Zijlstra states that social robots and AI's that are designed exceedingly similar to humans make excellent candidates to be perceived as social actors. Currently, they are used to help parents communicate with autistic children.[30]

However, Zijlstra and Darling point out that the anthropomorphic framing of robots can have undesirable effects.[31] Darling appoints a true story about a soldier who gave his life to save a robot.[32] On top of that, Lee Worth Bailey warns against the use of human metaphors to describe actions or states of human-looking AI. Ascribing verbs as 'thinking' or the state 'being confused' to an AI that is processing information fades the boundaries between considering something to be alive or as an

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[25] Idem.
[26] Robophilosophy Conference, Call for Papers and Workshops, *Aarhus University,* accessed Dec 30, 2019. https://conferences.au.dk/robo-philosophy/call-for-papers-and-workshops/
[27] 'Artificial Intelligence', Oxford Dictionary, accessed on May 26, 2019. https://en.oxforddictionaries.com/definition/artificial_intelligence
[28] Zijlstra, p.5.
[29] Idem.
[30] Idem, p. 29.
[31] Idem, p. 6.
Kate Darling, 2015, "'Who's Johnny?' Anthropomorphic Framing in Human-Robot Interaction, Integration and Policy" in *Robot Ethics 2.0,* ed. P. Lin , G. Bekey, K. Abney & R. Jenkins (Oxford University Press (Forthcoming), 2017), p. 4.
[32] Zijlstra, p. 6.

object.[33] Using such words, although meaningless, leaves us with difficult moral dilemmas. Zijlstra points out the notion in which robots are perceived as a friend or companion rather than a technological tool. According to Zijlstra, this calls for redefining the word 'relationship', "a term traditionally, or authentically reserved for bonds between human beings" since we are bonding with something that is essentially not alive.[34]

1.3 Anthropomorphism in partnership after loss

As clarified before, a relationship, or interaction, between a human and an AI is facilitated by anthropomorphism. Both *Marjorie Prime* and *Be Right Back* present a situation in which the human protagonist copes with the loss of their partner by replacing them with AI. Therefore, I will now explore the effects of anthropomorphism on humans that feel the need to, or are introduced to the possibility of filling the gap of loss and loneliness using anthropomorphic technology.

Building a relationship requires trust. According to Erik Erikson's theory of the psychosocial stages of life development, trust is the first and most essential element of building a relationship.[35] According to Zijlstra, it seems arguably easier to trust a robot compared to many other technologies since they are a potent persuasive technology. However, moral and ethical dangers loom.[36] Peter Paul Verbeek bases this danger on the anthropomorphic framing that is amplified by the fact that social robots are forceful, convincing, guiding and seductive at the same time, because they are not guided by emotions and do not tire.[37] Also Ornella refers to Turkle adding that their "interactiveness and their representation in popular culture as relational, social and emotional machines often let users, adults and children, forget their inner workings."[38] And despite the ease to trust a robot, Ornella remarks the argument of Chris Hables Gray and colleagues that we cannot think of the human–machine relation as a partnership. We should look at it as "a symbiosis that is controlled by cybernetics and that influences our imagination, imagery and thought processes."[39] Especially when having lost a good friend or loved one.

Besides the possible physical effects of grieving, the worst part is feeling lonely and having no one around that can resemble the characteristics of this one special person.[40] When in this situation, you would probably do anything to get your loved one back, even if it is only for one more

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[33] Idem, p. 11.

[34] Idem, p. 45.

[35] Erik H. Erikson & Joan M. Erikson, *The Life Cycle Completed: Extended Version* (W. W. Norton, 1998).

[36] Zijlstra, p. 45-46.

[37] Idem, p. 45-46.

[38] Turkle in Ornella, p. 647.

[39] Chris Hables Gray et al. in Ornella, p. 646-647.

[40] L. A. Lillard & L. J. Waite, "Til death do us part: Marital disruption and mortality," *American Journal of Sociology,* 1995, *100(5)*: 1131-1156. http://dx.doi.org/10.1086/230634
Ana Vitlic, Riyad Khanfer, Janet M. Lord, Douglas Carroll and Anna C. Phillips, "Bereavement reduces neutrophil oxidative burst only in older adults: role of the HPA axis and immunesenescence," *Immunity & Ageing, 2014, 11(13).* https://doi.org/10.1186/1742-4933-11-13
C.B. Rosnick, B.J. Small & A.M. Burton, "The effect of spousal bereavement on cognitive functioning in a sample of older adults," *Aging, Neuropsychology, and Cognition, 17(3)*: 257-69. doi: 10.1080/13825580903042692

moment together. Unfortunately, there is no way of achieving that. So, we start searching for something to fill the gap. Preferably something with the same traits as the one we have lost. Russell Friedman correlates this to whenever kids lose their beloved pet and how they are often told: 'don't feel bad, we'll get you another one on Saturday.'[41] This causes the child to feel guilty about feeling sad and makes them believe that something that disappears irreversibly can be replaced. Later in life, the child will learn that when grandma dies, and people say 'don't feel bad, she had a good life' the 'we'll get you another grandma on Saturday' never follows.[42] Luckily, combating loneliness can be done using robots or AI, just like ElliQ helps the elderly. Fighting loneliness with technology "is claimed to function at its best when the robot is framed as a friend or companion."[43] The idea that technology could provide a divine fix to our problems is called the *technological imaginary*.[44] In the near future, it might be possible that our passed away partners can 'come back' as artificially intelligent entities. The sudden gap can directly be filled by exactly what you were looking for. You will never have to feel alone anymore and never have to end your relationship. However, as Friedman accentuates, all human relationships are unique and irreplaceable. You have to grieve and end your relationship with the person (or pet) who died or to the romance that ended. If you don't do that, you are doomed to drag the past into your present and thereby destroy your own future relationships.[45]

Bonding with something that is not alive has different stages of comfort (image 1). Looking at image 1, there is one stage in the bonding process where the line of familiarity drops significantly. This happens when the human looking entity looks nearly human, but you can tell something is off. It gives a feeling of revulsion that the Japanese robot builder Masahiro Mori called the *uncanny valley.*[46] This revulsive reaction to anything or anyone that looks a bit off seems to be a human evolutionary tendency to protect ourselves from proximal sources of possible danger. "Proximal sources of danger include corpses, members of different species, and other entities we can closely approach."[47] Unfortunately, most of the times we cannot put our finger on what is off exactly, which makes us suspicious. "The idea is that we like robots better when they look more human, but as soon as they are not distinguishable from what is real, it gets something lugubrious."[48]

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[41] Russell Friedman, "Dealing with grief and loss: Why people try and replace the loss (Grief Myths Part 2)," The Grief Recovery Method, Feb, 11, 2013.
https://www.griefrecoverymethod.com/blog/2013/02/dealing-grief-and-loss-why-people-try-and-replace-loss-grief-myths-part-2
[42] Idem.
[43] Zijlstra, p. 33.
[44] Martin Lister et al., *New Media: an Critical Introduction, second edition*, Taylor & Francis Ltd, 2008, p. 66-73.
[45] Friedman.
[46] Masahiro Mori, "The Uncanny Valley [from the field]," trans. Karl F. MacDorman and Norri Kageki, *IEEE Robotics & Automation Magazine,* 19:2, 2012, p. 98-100. https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=6213238
[47] Idem, p. 100.
[48] Vincent Kouters, "Ook in het theater is er geen ontkomen aan Robots," trans., *De Volkskrant*, 16 mei 2019.
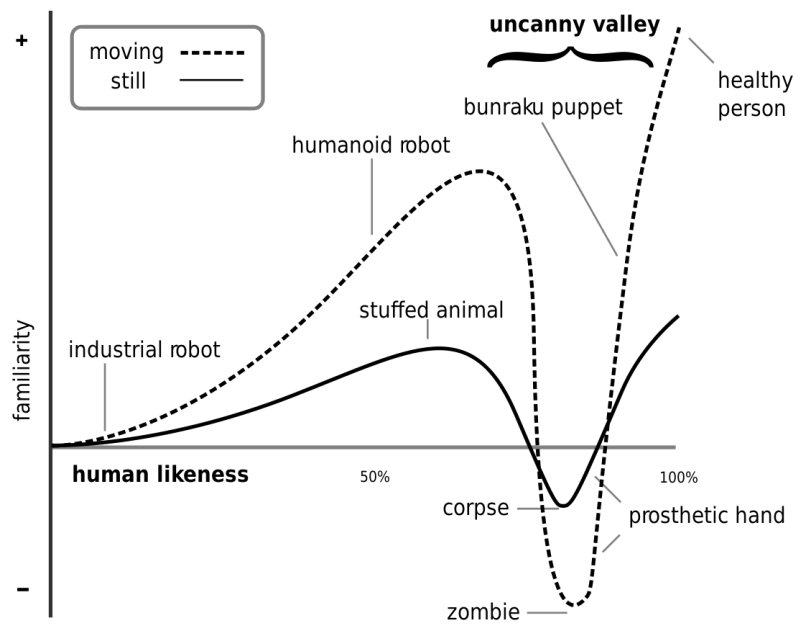https://www.volkskrant.nl/cultuur-media/ook-in-het-theater-is-er-geen-ontkomen-aan-robots~b2c6769f/

Image 1. Masahiro Mori's graph to depict the uncanny valley, the proposed relation between the human likeness of an entity, and the perceiver's affinity for it.[49]

In short, this research concerns science fiction film as a medium preparing us for future developments and the resulting changes in the human-machine relationship. Through increasing developments in the anthropomorphic design of artificial intelligence, and the technological imaginary idea of the future, the boundaries between real and artificial fade. These fading boundaries lead to comfortable and uncomfortable relationships between human and machine. This thesis provides insight into the way science fiction film prepares us for these future matters and intends to lay a basis for research to the interventions in physical and semantic spaces of human culture and sociality.

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[49] Mori, figure 1, p. 99.

2. Method: a neoformalist film analysis

In this chapter I briefly explain the neoformalist approach that is used to form the method of analysis for both *Marjorie Prime* and *Be Right Back* (2.1). Then I will be able to define (2.2) and formulate the rhetorical method that will be used to investigate how both films present artificial intelligence as a potential replacement for lost partners, how they form a perspective on AI replacing humans in society and finally, how they encourage critical thinking about this issue (2.3).

2.1 A neoformalist film analysis: one approach many methods

In film theory there are several approaches of analysis one can take doing research. An approach is considered to be a set of assumptions about characteristics common in a variety of artworks about certain procedures that spectators undergo in comprehending any artwork.[50] Examining these assumptions gives a chance to create a reasonable systematic approach to analysis. One of these approaches is *neoformalism* coined by Kristin Thompson. "Neoformalism as an approach does offer a series of broad assumptions about how artworks are constructed and how they operate in cueing audience response."[51] Because I want to know how *Marjorie Prime* and *Be Right Back* cue their audience to critical thinking about the human-machine relationship developments I will use this approach for constructing my rhetorical analysis. Neoformalism is a response to the Russian *formalism*. Formalism was from the early 20th century seen as the common strategy to approach film analysis. This approach mainly analysed a film to show the approach and its corresponding method, meaning that the approach or method of the analysis was the central focus point. The formalists used to have a fixed set of steps to follow a method and would choose the best suiting film to prove (or disprove) the method's operationalization or statements made beforehand. According to Thompson, this pushes films into a fixed set of checkboxes and interpretive rules. The film loses its unique qualities and power. Therefore, she asserts that one should let the film call for its best suiting method and coined neoformalism as a response. Only then a film is allowed to flourish as it can be analysed through the most appropriate method for its content. Neoformalism eliminates the dreaded 'cookie cutter' phenomenon.[52] In contrast to other film analysis approaches like psychoanalytic, linguistic and realistic approach, the neoformalist approach does not correspond

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[50] Idem, p. 3.
[51] Idem, p. 6.
[52] Idem, p. 4.

to one method.[53] It allows to employ any method build out of an approach. Therefore neoformalism stands for 'one approach, many methods'.

2.2 Defining methods within neoformalism

Then the question arises: what methods are those "many methods" of neoformalism and how are they defined? Thompson defines a method as set of procedures employed in the actual analytical process of one specific kind of artwork, in contrast to an approach, which she defines as a set of assumptions about characteristics that apply to all artworks.[54] Following Thompson, the neoformalist approach never fully dictates how a film must be analysed.[55]

Reading Thompsons book, I notice her searching for the most important meaning or tactics of a film to analyse. For example, she researches the *dominant* in film, the use of *duplicity*, *defamiliarizing* elements, *realism* or the perceptual challenges of *parametric form* as a particular film addresses this or uses such techniques as the most important characteristics or cinematic style.[56] Overall, she adjusts her methods and the general subject of the analysis to each film. Methods used to study form, like the rhetorical method, are allowed to take any shape needed as long as they are in line with a single approach.[57] The approach allows decisions on the infinite amount of questions that could be asked and filters the most useful and interesting ones. The method provides a tool for examining the intriguing elements of a film and answering questions about their magic first impression on the audience.[58] Following this, I will adjust the method of rhetorical analysis based on what *Marjorie Prime* and *Be Right Back* address to explore in the structures and elements that captivated me at my initial observations.[59]

2.3 Rhetorical method design

To adjust a method as best as possible, Thompson points out different elements analysts have to bear in mind whilst composing a suited method. First, the analyst has to examine the historical and cultural background of the film in order to understand it, as I did in the introduction and in chapter 1. This is crucial for understanding the film since the commonly used technique *defamiliarization* heavily depends on historical context; what can be shocking now, won't be shocking after repetition, or in another time period. Defamiliarization makes its audience look at familiar things in an

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[53] There is no space to elaborate on the detailed differences with other approaches to film analysis, therefore I recommend to read Kristin Thompson, *Breaking the Glass Armor,* p. 24, 28-30, David Bordwell, *Narration in Fiction Film, (London: Routledge, (1987) 2013)* and/or David Bordwell, Janet Staiger and Kristin Thompson, *The Classical Hollywood Cinema: Film Style and Mode of Production to 1960* (New York Columbia University Press, 1985).

[54] Thompson, p. 6.

[55] Idem, p. 5.

[56] Thompson analyses motivation and delay in *Terror by Night*, the dominant in *Les Vacances de Monsieur Hulot* and *Tout va bien*, defamiliarization through duplicity in *Stage Fright* and closure in *Laura*, realism in *Bicycle Thieves* and discrepancy *The Rules of the Game* and parametric form in *Play Time, Sauve qui peut (la vie), Lancelot du Lac* and *Late Spring.*

[57] Thompson, p. 6.

[58] Idem, p. 5-7

[59] Idem, p. 5.

unfamiliar way to enhance their perception of the familiar, it is used to intrigue the spectator.[60] Second, the analyst has to find out what the dominant is. The *dominant* is the leading formal principle that organises the devices into a whole.[61] It determines which devices and functions are foregrounding defamiliarizing traits and which are subordinating them.[62] "We might say that the dominant governs the perceptual-cognitive 'angle' that we are cued to adopt in viewing a film against its backgrounds."[63] Finding the dominant trait results in seeing a common structure of functions running through all of them. The found structure forms the dominant and decides what method fits best.

Thompson believes that "analysis involves an extended, careful viewing of a film - a viewing that gives the analyst a chance to examine in leisurely fashion those structures and materials that intrigued him or her on initial and subsequent viewings."[64] This also applies to the rhetorical method. The first time I watched *Marjorie Prime* and *Be Right Back*, both films raised critical questions about how real life with an AI version of deceased loved ones would be. What would that mean to me, to my life and to that of my friends and family? How have these movies triggered particular thoughts about human-machine relationships? The latter question is the one that I hope to answer at the end of this thesis.

"Because the questions are (at least slightly) different for each work, the method will also be different."[65] In my research, I am going to analyse two films to which I ask basically the same question: how does the film inform our ideas of replacing passed away partners by artificial intelligence? Both films convey this message in their own style, which is what alters the method. Both films will be analysed using the rhetorical method, but the focus of this method will lay somewhere else based on the dominant of each film. Having examined the ordinate and subordinate devices of *Marjorie Prime,* I found a dominant of duplicity and reflection. Therefore, I will analyse *Marjorie Prime* focusing on the most important devices stimulating critical thinking about the human-machine relationship using duplicity and reflection. For *Be Right Back* I found a dominant of discrepancy in realism and artificiality. Therefore, the analysis of *Be Right Back* focuses on the devices mostly confronting the real with the artificial.

Doing a rhetorical analysis means that I will watch both films several times while making notes to identify the elements (also called *devices*) of the movies as they are revealed and explain why and how they contribute to the bigger picture of the films.[66] To get a grasp of the basis of the

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[60] Thompson, p. 25.
[61] Idem, p. 43.
[62] Idem, p. 43 & 89.
[63] Idem, p. 91.
[64] Idem, p. 5.
[65] Idem, p. 7.
[66] Arnold Papadopoulos, "How to Write a Rhetorical Analysis of a Movie," *Our Pastimes,* accessed on August 15, 2019.
https://ourpastimes.com/how-to-write-a-rhetorical-analysis-of-a-movie-12543261.html
Thompson, p. 15-16.

movies, I will identify the dominant, the genre, the time and place the movies are set in, the duration of the story, the main characters, the level of conflict, the crisis, the climax and the resolution of the stories. To then further examine how these and the important devices are formed to convey the ideas of the separate movies.[67]

In the end, I will link the analysis of *Be Right Back* and *Marjorie Prime* to the cultural and social context, because "Each analysis should tell us something not only about the film in question, but about the possibilities of film as an art."[68]

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[67] Papadopoulos.
[68] Idem, p. 6.

3. Rhetorics in *Marjorie Prime*

In this chapter I will analyse how the film *Marjorie Prime* encourages thinking critically about AI copies of deceased relatives. By specifying the distinctive traits of *Marjorie Prime* I will get to the dominant (3.2). When having found the dominant I will be able to analyse how it runs through the action of the film at every level. This will enable me to distinguish the most important devices that contribute to the dominant and see how the film's general idea is conveyed (3.3). But first, I will give a plot summary of the film to clear the basics of *Marjorie Prime*'s genre, time, place, duration of the story, main characters, level of conflict, crisis, climax and the resolution (3.1).[69] After having done so, I will be able to answer the first subquestion *how do duplicity and reflection in* Marjorie Prime *inform our idea of replacing passed away partners by artificial intelligence?*

3.1 *Marjorie Prime's* plot summary

In the near future, at a time of artificial intelligence, the 85 year old Marjorie (Lois Smith) converses with a hologram that looks exactly like the young version of her deceased husband Walter (Jon Hamm). The presence of this so called 'prime' helps Marjorie, who is experiencing the first symptoms of Alzheimer's disease, reminding her to eat and remember her life by retelling her the stories she told the prime before. Marjorie lives together with her daughter Tess and her son-in-law Jon, in her house at the beach. Tess is skeptical and does not like the idea of the prime. Jon has a positive attitude towards its use and supportive character, it was his idea to get a prime. There appears to be tension between Tess and her mother, caused by something that happened many years ago. Piece by piece the story of this mysterious event is revealed throughout the film. After Marjorie's death, Tess has difficulty coping with the loss and Jon gets her a Marjorie Prime. Tess becomes open to the idea but remains skeptical, she is ultimately unable to cope with the loss of her real mother and commits suicide. Now, Jon gets himself a Tess Prime to help him through his loss and loneliness. It turns out to be harder for him than he thought. He realizes that a prime is not solving any problems for a loss like that. When Jon has grown old, we find the three primes together. They are tying all the unsolved memories together, until the mystery is resolved. According to the official film description, this film asks the question "what would we remember, and what would we forget, if given the chance?"[70]

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[69] Idem.

[70] IMDb, Plot summary of *Marjorie Prime (2017)*. https://www.imdb.com/title/tt4978710/plotsummary?ref_=tt_ql_stry_2
VPRO Cinema, plot summary of *Marjorie Prime (2017)*. https://www.vpro.nl/cinema/films/film~12594793~marjorie-prime~.html
Marjorie Prime, synopsis. https://www.marjorieprimethemovie.com/

3.2 The dominant

At the first viewing, one might be slightly confused by this film. Firstly, it is a sci-fi mystery requiring a lot of concentration, intimacy and focus.[71] Secondly, there is no real action in the story of *Marjorie Prime,* most of the events are revealed through dialogue. Important events of the story are not shown, but are revealed later when conversations between characters explain what happened. This confuses the chronology of the story, forcing the spectator to figure out what actually happened in previous events. The missing information is supposed to explain the behavior of the characters and their current relations. Each gap causes delays in understanding what happened and what is happening. The development of the story corresponds with the subject of the holey, fading and adjustable character of the human memory found in Marjorie's dementia.

As Thompson states "the dominant structure runs through the film from the most general to the most local level: it informs style, narrative and theme."[72] Following the former, the fundamental character of the memory forms the dominant of this film through the mystery genre within the narrative, the style and the theme. However, I feel the question "what would we remember, and what would we forget, if given the chance?" does not say enough.[73] *Marjorie Prime* plays with disguising boundaries between real and artificial, or rather between the original and the replacement. Due to low-budget limits the action in the film is not shown. Almereyda covers this using time jumps that skip the action, which gives the film the perfect opportunity to play with what Thompson calls *duplicity* and defamiliarization. The gaps are a perfect disguise for not showing the boundaries between two separate things. Disguising the action and the time that has passed makes it seem like the situation of the previous scenes is still going on. Also the similarity between the original and the replacement deceives the spectator into believing that nothing has changed, while it later turns out that an AI replacement has taken someone's place. This causes the spectator to have to rewind to the moment of change and reprocess what happened there to understand what is happening now. It forces to reflect. Reflection is another frequent element in this film that is not only seen in the development of the narrative, but also within the cinematography of this film. And therefore also a dominant of this film.

So, *Marjorie Prime* is not only about the human memory and its characteristics to forget and adjust, it also shows that reflection is crucial for understanding what really happens. The film requires us to stay critical in times of almost unrecognisable boundaries between real and artificial and to not let yourself be deceived. It shows us this message through a heavy but serious subject: a

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[71] *De Volkskrant*, "Marjorie Prime is een intrigerende film die niet alleen tot nadenken stemt, maar ook ontroert (****)," Kevin Toma, May 8, 2018
https://www.volkskrant.nl/cultuur-media/marjorie-prime-is-een-intrigerende-film-die-niet-alleen-tot-nadenken-stemt-maar-ook-ontroert~b7156e3f/?referer=https%3A%2F%2Fwww.google.com%2F
[72] Thompson, p. 97.
[73] IMDb, plot summary of *Marjorie Prime (2017)*. https://www.imdb.com/title/tt4978710/plotsummary?ref_=tt_ql_stry_2
VPRO Cinema, plot summary of *Marjorie Prime (2017)*. https://www.vpro.nl/cinema/films/film~12594793~marjorie-prime~.html
Marjorie Prime, synopsis. https://www.marjorieprimethemovie.com/

future with almost exact artificial copies of our passed away loved ones. It challenges us to ask questions like: should we let technology develop as far as confusing our deepest emotions? And what if you can be replaced by a version of you that lives forever? What does your life mean? What does it mean to be human? In the next section, I will rhetorically analyse the important devices of this movie, to show how it gets the viewer to think like that.

3.3 Duplicity and reflection in *Marjorie Prime*

As just shown, the dominant of *Marjorie Prime* is duplicity and reflection. Now, I will analyse how different devices contribute to this dominant following Thompson's chapter *Duplicitous Narration and Stage Fright*. First, I will elaborate on Thompson's term *duplicity* (3.3.1), and elucidate the devices that cue duplicity to point out how this movie is deceiving you to believe something different than is true. Second, I will analyse devices that cue reflection and critical thinking so that viewers find the truth. I will show how duplicity and reflection mostly come forward in the characters (3.3.2), the narrative development (3.3.3), and reflection in the cinematography (3.3.4).

3.3.1 Duplicity in Marjorie Prime

Thompson explains the term *duplicity* following a theory of Roland Barthes.[74] The trick of telling a story without revealing the truth prematurely and bringing the story to an abrupt end is an art in itself. Barthes explains that a text "tries to lie as little as possible: just what is required to ensure the interests of reading, that is, its own survival."[75] More specific, in order to keep the reader's attention, a story has to delay the climax and resolution without lying since this destroys the credibility of the storyteller. Being able to keep the truth from its readers possesses a few tactics of delay, concealment and distraction that Barthes calls *dilatory morphemes.* The dilatory morphemes are of varying levels of deception or withheld truths, from an outright lie to pretending to know as little as the reader.[76] However, Thompson argues that the degree of deception is less interesting than the motivation to deceive and to what degree it acknowledges this towards its reader. Apart from any compositional necessities to avoid ending the story abruptly, deception can play a defamiliarizing role.[77] According to Shklovsky, deception is very conventional for the mystery genre. It can even go as far as penetrating the very body of the film to form a juxtaposition of duplicity as the dominant in both the hermeneutic line (the line of enigmas) of the narrative and the style of the film, for example with time jumps.[78] In the case of *Marjorie Prime* deception becomes the subject in its proairetic line (the logical chain of causality) too as Marjorie's dementia causes confusion and with that the

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[74] Thompson, p. 135.
[75] Idem.
[76] Idem, p. 137-138. The dilatory morphemes are called *snare,* the outright lie, *equivocation, partial answer, suspended answer* and at last *jamming,* which is pretending to know as little as the reader.
[77] Idem, p. 137.
[78] Idem, p. 135-136.

necessary gaps of what really happened in the past and what did not. The interaction of the proairetic and the hermeneutic line is crucial to keep our interest. "By working to grasp the proairetic line, we feel satisfaction in understanding actions, but the ongoing questions posed by the hermeneutic material pique our interest and keep us oriented toward hypothesis formation."[79] In *Marjorie Prime*, the proairetic line is the story set in the present, which is themed by the loss of memory and loved ones and filled with the presence of the primes. This story skips the action with unspecified time jumps, confusing the spectator about the situation of the following conversation. The hermeneutic line in *Marjorie Prime* tells us what happened with the characters before the spectator entered their storyworld. The story develops as a memory mystery that changes and adjusts along with the information or forgetfulness of the person who remembers it. The dominant of duplicity in truth and deceit is present in both lines of *Marjorie Prime*.

In the next section, I will analyse how *Marjorie Prime* sets up deceiving devices in both the proairetic and the hermeneutic line. Moreover, we should not forget about the dominant of reflection. Reflection is mostly present in the proairetic line and in the cinematography of the film. After analyzing duplicity, I will further explore how reflection is encouraged in this film.

3.3.2 Duplicity and reflection in characters

The first scene of Michael Almereyda's 2017 film *Marjorie Prime* introduces us to Marjorie, an older woman, alone in her house at the beach and to Walter, a younger man in his forties who has the ability to suddenly appear. Their first conversation tells us that Marjorie is stubborn and does not eat, and that Walter is there to keep her company to remind her to eat. In the second scene, we learn that Walter is called a *prime* and that he represents the younger version of Marjorie's deceased husband. Thus, Walter Prime functions as a future, human looking version of something like ElliQ. Except, his functioning doesn't seem to be based on social media notifications and calendars. He seems to get his information purely from interaction with people, rather than computational input. The prime functions primarily for mental and emotional support for the demented Marjorie. Because the difference between a human and a prime is barely noticable, the spectator finds himself tricked believing the prime was a human. This cues duplicity and leads to rethinking and reflecting on what happened before knowing this.

The second scene also introduces us to Tess, Marjorie's daughter, and Jon, Tess's husband. Through a conversation between Tess and Jon we learn that Jon suggested the prime because "at this stage [of Marjorie's dementia] companionship is the most important thing." So, since Marjorie is in need of companionship, but doesn't have her companions around anymore, the solution is to copy her deceased companion, her husband, as an artificial intelligent hologram. Because of the prime's

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[79] Idem, p. 39.

familiar anthropomorphic looks and sounds Marjorie can more easily connect with this form of help. The prime ensures that she doesn't have to make new friends to fight loneliness and helplessness. Making new friends can be found hard at old age.[80] Jon has a somewhat technological imaginary way of thinking: the prime technology ensures companionship in the easiest way. It takes out all the insecurities and possible disappointments of making new friends and you can barely see the difference with human-human companionship.

Tess, on the other side, finds it weird to have a fake human that looks like her young dad in the house. Jon tries to ease Tess's discomfort and compares the prime with a parrot working his repetitive words getting Marjorie to eat. Tess responds with the fact that parrots live 'forever' - silently pointing out a prime's immortal nature - and that one of her students got her deceased dad's parrot, which still imitates his voice creating a weird vibe. A vibe similar to the feeling of the uncanny valley. The characteristics of the parrot emphasize traits that a prime has too: an (almost) never ending life and pretending to be someone it is not. She thinks that the way this technology presents itself is weird because it looks so real. "It is like a child only learning a hundred times faster, making us think it is a human." She literally states that the prime is making her believe that he is someone he is not. Notice her use of the word 'it' to refer to the prime. As Bailey pointed out: the incorrect use of human metaphors is deceiving already. Tess is the only one referring to the primes as objects instead of humans. Tess is unsettled by Marjorie being so accepting towards the prime and avoids interaction with Walter Prime herself. The conversation between Jon and Tess shows that several perspectives on this kind of technology are taken into the narrative. Jon is pro-prime and thinks they should at least give technology a try to help. Contradicting this view, Tess's character provides a critical view on the use of a prime, an important device that asks the spectator to do the same. Which side do you choose, positive Jon or skeptical Tess?

Marjorie doesn't have a strong opinion about the prime, she likes the company and makes use of its adapting features to romanticize her memories to her likings, like Walter's proposal. Walter Prime tells her that he proposed while they saw the movie *My Best Friend's Wedding*. But Marjorie suggests to adjust the memory to watching *Casablanca* in an old movie theater with velvet seats, and Walter proposing on their way home. "And then by the next time we talk it will be true." She romanticizes her life and makes use of her own forgetfulness and the prime's adjusting character. This influences both her past (the hermeneutic line) and the realness of the memories she has in the present (the proairetic line). It changes Marjorie's way of thinking about her life and the credibility of her memory. Her incredibility asks the spectator to be extra vigilant when Marjorie is talking, to think twice about what she says and how her memories can or cannot help figure out the enigma.

The different perspectives of the characters play significant roles asking us to reflect on the narrative events and the changes and developments of their perspectives. The first half of the film the spectator follows Marjorie and Walter Prime and attends conversations in which Jon prepares Walter Prime for possible conversations with Marjorie. Tess expresses her concerns about her mother, the weirdness of Walter Prime and the relationship that her mother has with the prime. She struggles with the fact that her mother is nicer to the prime than to her own daughter. Marjorie seems somewhat confused about what is going due to her dementia, but can sometimes be very sharp. For example, after the parrot conversation, Marjorie joins Tess and Jon downstairs after a nap. Jon asks how she slept to which she responds that she was just out. "That is how it should happen, when it happens," she says referring to her death. Tess thinks that she should not be morbid. Marjorie responds sarcastically: "yes, let's all pretend we live forever." Although she says it sarcastically to criticize their idea of life, that is exactly what they are doing. As well as a cue to reflect on the characters actions so far, this is also a cue to reflect on the perception of mortality and the deception of immortality, like a prime's immortality. Then Jon compliments Marjorie about her having her color back. Marjorie responds: "it is always nice to be lied to." Another cue of deception, but this one also doubles as a cue to be critical and realistic, stay sharp and notice when someone deceives you. As sharp as Marjorie was now, as confused she is a minute later. "There is someone in my mind." She cannot tell who it is. She says that she remembers waking up on a bridge with a lot of people around. Tess dismisses it as a dream, however it is the first cue to the enigma of the mysterious memory.

At one point, we see Jon having a little more trouble with the presence of the prime. When having a private conversation with Walter Prime, Jon throws his drink to him. A very human reaction, however not affecting a hologram at all. It shows that even the tech-positive person can be frustrated by the way a prime tries acting humanlike. This scene shows that a relationship with a non-human can apparently confuse humans about how to position themselves towards it.

After the first half of the movie, Tess and Jon are developing their opinions about the prime in opposite ways. Tess tries to be more open to it, while Jon gets disappointed by the performance of the prime. These developments show the humanity of attitudes: we can change our minds by experience, not by someone telling us how it is. We are critical thinkers, we have to consider and experience to see how things work. We need to reflect to form our stance. Tess and Jon are not actively reflecting on their own stances, but they do change their opinions by experience, which leads to reflection by the spectator about their own view in this case.

3.3.3 Duplicity and reflection in the narrative

There are a lot of devices in *Marjorie Prime* that cue duplicity and reflection and because there are so many I will elucidate the most remarkable ones. The first half of the film focuses more on duplicity and the second half more on reflection. But since duplicity and reflection are woven into each other throughout the film, I will analyse the devices in chronological order.

The first scene introduces us to the main subject of the movie. Walter suddenly appeared on the sofa, but Marjorie doesn't seem surprised and says: "I always feel like I have to perform myself around you." This statement seems somewhat strange and triggers questions that will not be answered directly. Walter tells the story of his proposal to Marjorie, and the story of their dogs Toni and Toni Two.

> Walter and Marjorie felt a little lonely before they had kids, so they got a dog. A little black French poodle. They named her Toni. Toni loved to run along the beach and had sand in her fur for weeks. But after a while - as all living creatures do - Toni died. After a few years, - their daughter Tess was born in the meantime - they went to the shelter to get a new dog. Miraculously, young Tess picked a little black French poodle and they named her Toni Two, which was soon shortened to just Toni. They had a lot of fun and loved their new dog. Toni loved to run along the beach, she had sand in her hair for weeks. And the more time passed, the less it mattered which Toni it was that loved to run along the beach. In their memories, it became the same dog.

This story reflects a typical Friedman "we'll get you another dog on Saturday"-example about our way of dealing with loss.[81] The Toni Two story introduces us directly to the subject of the whole film: replacing one living creature with another that looks exactly like the original and the natural flexibility of the human memory. It prepares us for the deceit that is coming.

Directly after the Toni Two story we are confronted with the first deception. Marjorie stands up and walks through Walter's feet revealing him as a hologram. Like Toni Two, he is a replacement for the original. This is not recognizable to the audience and therefore surprises us. By not revealing this from the start, Almereyda deceives us to believe that Walter was a normal human. Exposing the prime clarifies Walter's earlier appearance, why Marjorie says "something is a little off with his nose", and why she feels the need to perform around him. This revelation triggers the spectator to look for other cues that give away that he is an AI. Without this exposure you probably would have taken Marjorie's statements for vague dementia, since that too could justify her expressions. For sure, you would not have looked for anything that reveals that Walter is not human. Because of his anthropomorphic design the differences are almost invisible, but once revealed, you start looking for more clues. The spectator is woken up.

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[81] Friedman.

Soon after, Jon and Tess talk about the fundamentals of the human memory:

memory is not like a well that you dip into or a filing cabinet. When you remember something, you remember the memory. You remember the last time you remembered it, not the source. So it is always getting fussier, like a photocopy of a photocopy. So even a very strong memory can be unreliable, because it is always in the process of dissolving.

Through this and an example about ice cream flavors the theme of the human memory is strengthened. At the same time, it provides the spectator with convenient knowledge regarding solving the mystery of the film and also about one's own reliability.

On a less sharp day, Marjorie wanders off in her thoughts and asks: "is Damian asleep?" Raising the question: who is Damian? Damian was never mentioned before. However, Tess says "no mom, Damian is not here." Apparently, she knows who Damian is. Marjorie tells a vague memory of sitting in a park, "not wanting to get up, because that would mean we would have to start the rest of our lives." Tess breathes out, does not respond to the story and starts another topic. Tess's reaction is what starts the puzzle. There is something we are not told. This is where the puzzle of the memory lays solid ground. The way Tess responds to the story gives away that there is more behind this story. Did we miss something? Does it relate to the memory of the bridge? The sudden created gap of not knowing delays the story and creates curiosity and reflection on what is known about the case. The spectator continues puzzling. Luckily, Jon answers some of the spectators' questions while instructing Walter Prime. Jon affirms that Walter Prime should never mention any of it to Tess, it is a secret between Walter Prime, Jon and the spectator. Some of the gaps in Marjorie's memories seem filled now. Although, it remains unclear what this meant to Tess.

Halfway through the film, Julie, Marjorie's caretaker, states that Marjorie's dementia is getting worse. Time has passed and the most intriguing devices of this movie come in. The family celebrates Marjorie's birthday on the beach. It is the first scene where we see our characters in real action. There is no dialogue, only violin music. After the birthday scene the film cuts through several pictures showing a girl grow into a woman and finally into the Marjorie we know. The most recent picture fades away and turns into a twilight cloudy sky. The next day, we see Jon taking Julie to his car, Julie hugs Tess goodbye and they drive away. At the end of the day, Tess sits in the chair, talking to Marjorie. For the first time we see Marjorie on the sofa instead of in her lounge chair. She looks like a fine woman, dressed and made up for her birthday, contradicting the grey pyjamas she wore continuously. Tess and Marjorie talk about Toni and that Tess and Jon want a dog. When Tess mentions a certain dog breed Marjorie shows that she does not know what kind of breed that is, Tess answers "you can look it up, I know you can. Is it against the rules?" Without moving an inch, Marjorie answers in a few seconds with a lot of information about this dog breed. It cues that

Marjorie is a prime. Only now, it becomes clear that the birthday scenes where Marjorie's last glorious days, and that the pictures were not just shown to celebrate her life on her birthday. They double functioned as a last look, a goodbye. The last picture fading into the sky implying her journey to heaven. It also clarifies why Jon took Julie away; her help is no longer needed. A time jump hid the events and deceived us to believe it was only the end of her birthday. The film never mentions her death until Tess says that she is talking to her dead mother. The spectator doesn't notice the gap of Marjorie's death until it is revealed. The spectator has to reflect where this event might have happened and has to put the events into the new context of Marjorie's death. The spectator is forced to reflect on what just happened. This is the film's biggest duplicity and reflection device. The death of the protagonist directly forces us to reflect on this deception and the invisible boundary between real life and artificial life. Unlike Friedmans example about when grandma dies and the 'we'll get you another grandma on Saturday' that never follows, this film provides a situation in which this actually can happen. It provides a laboratory of a technological imaginary future of deceiving yourself.[82]

Now the focus of the film shifts to Tess and Jon coping with the loss of someone dear and her hologram replacement. Reflection on life and humanity is the main focus of this part. Tess talks to Marjorie Prime, accepting it to help her coping in some way. However she stays critical: "I am not really good at pretending, sometimes you are so her. But other times it is all too apparent." Marjorie Prime is still in the beginning of being Marjorie and needs a lot of information to become more 'real'. Tess tells her about her life and their relationship, but she avoids every question about her brother Damian. Tess asks Marjorie Prime if she has emotions, if she feels anything or if she just remembers their emotions. "I'd like to know more," Marjorie answers. "It makes me better, more human." Tess answers: "What are humans like?" directly addressing the spectators to answer this question as well. "Unpredictable," Marjorie Prime answers. Tess finds herself pretty predictable to which Marjorie Prime says: "I see, you want to be more human too." This asks the spector to reflect on their own life and being human too.

Later, we see Tess going through Marjorie's stuff. In between letters and obituaries she finds a picture of Damien and Toni. It touches her. Crying, she tells Jon how she hated Damian for how he had changed Marjorie by killing himself. She could never figure out how to get her mother to love her like she loved him. This explains the previous tension between Marjorie and Tess. These devices are all about reflection. Even the cinematography in this scene contributes to reflection (illustration 1.4). At night, Tess talks to Marjorie Prime again. Marjorie Prime puts on music and the first line goes "they say everything can be replaced." A line suiting the overall subject of the film. Tess lets herself get carried away by the song, until it stops abruptly. Tess drops back into reality and the screen fades

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[82] Friedman.

to black. A device that shows how we can get carried away by something deceiving us, but we always end up back into reality where we have to understand that not everything can be replaced.

Next, we find Tess sitting neatly on the couch. Jon watches her, he looks devastated and goes back upstairs. Jon's neglected appearance and his question "do you know your name?" makes it clear that she is a prime, which means that Tess has died. Again, the film is not explicitly revealing the events that have happened. Jon has a hard time talking to her about how Tess died disclosing, she too, committed suicide. Jon speaks into the air: "Tess, you were right. It's just a backboard, it's nothing. It's just like -- I'm talking to myself." He realizes that having a prime that pretends to be the person you loved, is not giving the closure or comfort he thought it would. His opinion changes from positive to disappointed. Having to tell your deceased loved one what your lives were like - "did you propose to me? Or did I?" - seems to be quite painful. Especially, when you have to install the prime for yourself. This scene shows Jon reflecting on his standpoint and admitting he was wrong, a very important human trait.

Later, we see Jon as an old man. A male voice starts talking about an old movie theater "that mostly played classics. It had red velvet seats and a popcorn machine. They were playing *Casablanca."* At the word 'Casablanca' we see Walter Prime looking through the window to the sea. Marjorie Prime is there too. Marjorie Prime and Walter Prime seem to have different versions of the memory. Walter Prime assumes he was misinformed and adjusts directly. He talks about how he proposed to Marjorie on their way back, telling the adjusted version. Tess Prime is also there telling how Jon proposed to her. Walter asks: "where is Jon? I wish he would stop by." They do not seem to know that Jon is old, or maybe died as well in the meantime. The three primes 'live' on. They will never die. After a small talk Walter Prime concludes "our daughter is afraid of the future." "Well, the future will be here soon enough, you might as well be friendly with it," Marjorie Prime responds. Tess Prime starts the memory about Toni. Marjorie Prime tells how Tess picked the little black poodle, on which Walter responds that it was not Tess who picked the dog. It was Damian who picked her. Marjorie Prime does not seem to know who Damian is, since Tess never talked about Damian to Marjorie Prime. Walter tells her: "our son, Damian. He picked her because she looked like the first Toni, he missed the first Toni." Tess Prime responds: "There was a Toni before Toni?" Tess apparently never knew that Toni Two was a replacement for Toni. "Remember the two of them running along the beach? They had sand in their hair for weeks," Walter Prime says. This last scene ties up all the loose ends, completes the puzzle and reflects on the memories we have encountered. After a few confusing and adjusting faces, Marjorie Prime responds that she does remember now. The same goes for Tess. But they only 'remember' because of their nature to adjust, to being able to hear new things and saving them as if they have always known them. "Oh I miss them." Marjorie Prime says. Walter Prime responds: "I didn't want to make you sad." "You didn't," because primes do

not have emotions. "All I can think is how nice... How nice that we could love somebody." As humans they could, as primes they cannot. So what does it mean to be human according to this film? It means to be mortal and to be able to feel emotions.

3.3.4 Reflection in cinematography

Now, there are some important cinematographic devices left that contribute to the dominant of reflection. Despite being a low-budget movie without much action, the limits do not harm the movie at all. In contradiction, either Almereyda makes good use of his restrictions or it was an unintentionally beneficial effect of the constraints. I believe the calmness of the movie provides the perfect atmosphere for reflection. In between the dialogue scenes there are sequences in which there is no dialogue at all. The conversations are alternated by calm shots of the empty beach, the sea, the beach house, someone arriving at or walking through the house or just shots of art or pictures present in the house, all accompanied by classical violin music. We might dismiss these non dialogue shots as subordinary to the events within the conversations, although they are important for the dominant of reflection. Frequently, the camera records movement within a shot not directly from the movement but via the reflection in an object (illustration 1.2 to 1.4). Another tactic is showing a close up of the sea reflecting the sun, as is also shown in the introduction of the movie (illustration 1.1). Besides showing literal reflections, their calmness and cinematography stimulates and give time for reflection and to put the information they have been receiving via the conversations together.

3.4 Conclusion

As I have just explained, many of the devices in this film support and motivate the dominant of *Marjorie Prime*: duplicity and reflection. The message of deceit and reflection is conveyed through a story about humanity, inhumanity, death, and the fundamental character of the memory. Through duplicity and reflection, *Marjorie Prime* defamiliarizes its spectators and puts them in an Uncanny Valley experience. The faded boundaries between life and death and between memory and fantasy deceive the spectators, asking for reflection on what is real and what is artificial.

     Marjorie Prime provides a laboratory in which Friedmans 'we'll get you another grandma on Saturday' becomes a possibility and takes it even further by copying your loved ones as you knew them.[83] Doing so the film asks its spectators to reflect on the meaning of relationships and life. As Erikson stated, the first and most essential element of building a relationship is trust.[84] Walter Prime's anthropomorphic design and familiarity encourages the creation of trust and motivates

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[83] Ornella, p. 661.
Friedman.
[84] Erik H. Erikson & Joan M. Erikson,

Marjorie's connection with Walter Prime. However, this doesn't work for both Jon and Tess and their prime. They rather see the imperfections and things lacking the prime. They find themselves in an uncanny experience while interacting with a prime. Is this because of Marjorie's unstable ability to think clearly? Or is it their differing phases of life?

Despite Tess's and Jon's skeptical and disappointed attitudes towards the primes, they both use human metaphors to describe actions or states of the human-looking primes. Even Tess who named Walter Prime an 'it' instead of an 'he' in the beginning, is lured into using human metaphors later on. Because it simply feels and sounds inhumane to say 'it' to something looking and acting so very human, it is very easy to lose the essence of what a prime is: a machine. This is where we lose boundaries between real and artificial and where difficult, moral dilemmas are lurking according to Lee Worth Bailey.[85] Even in minor ways of handling AI in everyday life, we should stay sharp, correct and accurate.

Marjorie Prime keeps its spectators sharp by confusing them through the interplay between the hermeneutic and the proairetic line. As the film shows in its proairetic line, the human memory is adjustable and can easily be deceived to believe that something artificial is real. By stimulating its audience to find out what happened in the past (the hermeneutic line) combined with the proairetic troubles of social AIs as replacements of the deceased in everyday life, *Marjorie Prime* pushes its spectators to think critically, stay sharp and not be fooled when it comes to the domestic use of artificial intelligence. On top of that, the subject of replacing deceased loved ones elicits that humans cannot be replaced by technology and that mortality should be accepted as one of the main things that give life meaning. Jon's scene of installing Tess explicitly shows that in order to install your AI you have to tell your deceased loved one what your lives were like. Something presented as a situation you rather don't experience.

In short, this film conveys two important messages. Firstly, a human being cannot be replaced by technology, no matter how identical it looks to the original. Secondly, don't let yourself be fooled and reflect on what you are experiencing, stay true to yourself. These two messages woven into the film should bring spectators to think critically and form an opinion, or at least an idea, about the future of AI and robotics in everyday life. For future generations is it of great importance to have informed and critical citizens when it comes to making and voting for rules and laws for the integration of AI and robotics.

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[85] Bailey in Zijlstra.

4. Rhetorics in *Be Right Back*

Be Right Back is, like *Marjorie Prime,* about replacing a deceased loved one by an AI copy of that person*.* However, *Be Right Back* does so in a completely different style and setting. In this chapter, I will answer the second subquestion *how do discrepancy and realism in the episode Be Right Back from Black Mirror form our idea of replacing deceased partners by artificial intelligence?* I will do so by analyzing how the episode *Be Right Back* encourages critical thinking about artificial copies of deceased relatives based on its narrative development (4.1), dominant (4.2), and defamiliarization, as I have done with *Marjorie Prime*. However, where *Marjorie Prime* showed a dominant of duplicity and reflection, *Be Right Back* conveys its message through realism and discrepancy. Therefore the focus of this rhetorical analysis lies in realism and discrepancy (4.3).

4.1 *Be Right Back*'s plot summary

Martha and Ash have just moved to Ash's childhood country house. Ash dies in a car accident while returning a rented van. At the funeral, Sara, Martha's friend, tells her about something that might help with processing her loss. Martha dismisses her advice. Grieving at home, Martha suddenly receives a message from 'Ash'. She deletes it immediately, realising Sara has organised this. She calls her, screaming that it is ridiculous and inappropriate to use the name of her deceased partner to send her messages. When Martha discovers she is pregnant with Ash's child she needs someone to talk to. Her sister does not answer and Martha loses her patience. She goes back to the deleted message from 'Ash' and chats with 'Ash' for awhile. After Martha has calmed down and gets comfortable with talking to this algorithm they begin talking day in, day out over the phone. Its voice is almost exactly like Ash's and after a while, 'Ash' tells her about an upgrade. The upgrade implants the software into a body, making him look like the real Ash. Martha goes for it. We can feel her anxiousness during the process of activation, but when he is ready, she is happy to see him again. She has missed him. At the same time, she feels weird because she knows he is not the real Ash. She tries to live with this 'Ash' in the hope it will be as it was. She struggles, but no longer feels lonely. Then her sister pays an unannounced visit and tells her that she is happy to see that Martha is moving on, based on male clothes in the bathroom. Martha cannot cope with an AI replica of Ash. In the end, we see her celebrating her daughters birthday. The daughter asks for an extra slice of cake so she can give it to 'Ash' who stays in the attic now. She is allowed to visit him there on the weekends.

4.2 The dominant

Contrasting *Marjorie Prime*, Charlie Brooker's *Be Right Back* is a psychological sci-fi thriller located in the countryside of Great Britain where the young Martha copes with the loss of her boyfriend in the country house of her deceased parents-in-law. With this subject *Be Right Back* plays with one of mankind's greatest fears: losing a loved one. Unlike *Marjorie Prime, Be Right Back* shows the actions of every important development in the story except for Ash's death. However, the spectator is right there when Martha starts worrying about Ash and when her fears are confirmed by the unmistakable red and blue flashing lights of the police. We follow her through her grief, through trying to move on, the harsh feelings of loneliness, and the breakdowns during everyday activities. "It's real, it's familiar, it's scary."[86] That is what *Be Right Back* summarizes. "It never loses sight of its humanity."[87] Realistic artworks use realistic motivations in their devices asking us to link the cues to our knowledge of the real world. "And if realistic motivation becomes one of the main ways of justifying the work's overall structures, then we generalize and perceive the work as a whole as realistic."[88]

By positioning the humanity of Martha and Ash against AI 'Ash' juxtaposes the real directly with imitation. This familiarizes and defamiliarizes us at the same time and confronts us with its differences. Brooker creates a discrepancy between real and artificial that familiarizes both of them. Realism and imitation come back in the narrative through the theme and the style of this episode, meaning that real versus artificial is the dominant of Be Right Back. Therefore, I will analyse the important devices that emphasize reality and artificiality that create the discrepancy in this episode.

4.3 Discrepancy and realism in *Be Right Back*

As just shown, realism and discrepancy are the dominant of *Be Right Back*. Realism and discrepancy are most present in the characters and the narrative and realism is also present in the setting of the episode. Therefore I will rhetorically analyse the important devices cueing realism and discrepancy first within the characters (4.3.1), secondly within the narrative (4.3.2), and finally, realism within the setting (4.3.3).

4.3.1 Realism and discrepancy in characters
In the first scenes of *Be Right Back*, we are introduced to Ash and Martha, a normal couple totally at ease with each other and their imperfections. Ash tends to lose himself in his phone, but he knows how to show love and affection, even when he is 'knackered' after a small love-making session that

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[86] Alec Bojalad, "Black Mirror: "Be Right Back" Is a Masterful Exploration of Fear, Love, and Death," *Den of Geek*, Feb 1, 2018. https://www.denofgeek.com/us/tv/black-mirror/270448/black-mirror-be-right-back-is-a-masterful-exploration-of-fear-love-and-death
[87] Idem.
[88] Thompson, p. 198.

ends with just him being satisfied.[89] Nothing is special or romanticized, which shows the imperfections of a realistic, deep relationship in which they are still discovering stupid or weird things about each other after being together for so long. For example, Ash loves the Bee Gees, which is according to Martha "so not 'you'."

Because this episode is a psychological thriller, it focuses on emotion. It emphasizes all the states of anxiety, grief, frustration, and mental breakdowns. It shows complex characters like Martha and Ash and their plain but realistic life. Ash is a sweet, funny and affectionate character and a little preoccupied with his phone, but surprises us with unpredictable characteristics. Within Martha we see how realistic emotions like love, loneliness, lust, anxiety, grief, sadness and disappointment motivate her actions. Ash and Martha are characters that are portrayed as realistic because of their imperfections. Their realism is contradicted and therefore reinforced by the superficial character of Fake Ash and his inability to read Martha's emotions. Apart from his incredible sex skills and his inhumane characteristics, he looks exactly like Ash. He has no emotions and only recalls 'memories' based on Ash's social media behavior. He has no will and no motive, other than pleasing Martha for doing or saying the things he expresses. He does not sleep, eat, breathe or bleed. "The embodied attempt of working through the mourning process quite quickly turns into an uncanny experience."[90] The interactions between the real Martha and the AI Ash emphasizes and empowers both their different characteristics. The realness of Martha emphasizes the artificiality of 'Ash' and vice versa. Their discrepancies empower their characters.

4.3.2 Realism in the narrative

The first morning in their new house, Martha decides to stay at home while Ash leaves to return the rental van. We stay with Martha, who's working on a very advanced drawing board. The drawing board along with their phones indicate that this story is set in the future. These devices are somewhat unfamiliar but within the range of our imagination since they are just advanced versions of what we already know, fitting the expectations of a future world. The rest of the setting resembles present day, a cue for realism. Martha looks at the clock, which indicates that Ash is taking his time bringing back the van. When dusk sets in there is still no sign of Ash. Martha starts calling him, leading to his voicemail. As psychological thrillers do, the following scenes emphasize the unstable, panicking psychological state of its character. We follow Martha's restless movements through the house. One can feel her anxiety growing. As time passes her anxiousness gets worse and worse, until we see the reflection of the unmistakable red and blue flashing lights approaching the house. With a heavy heart she opens the door, looks at the policemen and slams it shut. There it is, the bad news. The whole scene built up the feeling of anxiety and fear for the worst, a feeling

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[89] Bojalad.
[90] Ornella, p. 657.

everyone will recognize. Then human's greatest fear becomes reality. The unexpected loss of your loved one tears apart your whole world and there is nothing you can do.

After the funeral and the introduction to the algorithm that can mimic Ash, we jump through time and see Martha grieving, distracting herself by redecorating the country house, drinking wine, vomiting, breaking down and feeling terribly lonely. She goes through her email and she sees that Sara has signed her up for the programme she explicitly told her not to. Soon after, a message from Ash pops up: "Yes, it's me." Martha immediately deletes it, calls Sara and screams at her about how ridiculous this is as it is unreal. Her response is one that we as humans can empathize, a real human reaction.

When Martha finds out that she is pregnant her loneliness increases. She needs to tell someone, but her sister does not answer the phone. The message from 'Ash' is the only thing that can calm her right now. Nervously, she activates the programme and immediately gets another message from 'Ash'.

> 'Ash': Hello.
>
> Martha: "Is that you?" she types to the picture of Ash in her email.
>
> 'Ash': "No, it's the late Abraham Lincoln."
>
> She laughs - out of shock, bewilderment and recognition.
>
> 'Ash': "Of course, it's me."
>
> Martha: "I only came here to say one thing."
>
> 'Ash': "What one thing?"
>
> Martha: "I'm pregnant."
>
> 'Ash': "Wow. So I'll be a dad? I wish I was there with you now."

Martha longs to really speak to him and goes for the upgrade that lets her call him. This too, is a very human, wild, thoughtless action. She doesn't think about the consequences of the interference of an AI pretending to be your partner in your everyday life.

> "So…how am I sounding?" 'Ash' says.
>
> "You sound just like him."
>
> "Almost creepy isn't it? I mean, I say creepy but I mean it's totally batshit crazy I can talk to you. I don't even have a mouth."
>
> "That's just the sort of thing he would say."
>
> "That's why I said it."

She is blown away by how real he sounds and from then on she talks to him day in, day out. A noticeable thing is that both Martha and 'Ash' keep mentioning the weirdness of it. Even the

programme itself acknowledges how artificial it is: "Almost creepy isn't it? I mean, I say creepy but I mean it's totally batshit crazy I can talk to you. I don't even have a mouth." Martha trusts 'Ash' with everything, as Zijlstra pointed out this is due to its potent persuasive technology and its familiar and natural sounding voice.[91]

After her ultrasound, Martha calls 'Ash' to let him hear the heartbeat. Unfortunately, she drops the phone and it breaks into pieces. Martha panics, afraid to lose him again. "You were so fragile," Martha says clarifying her behavior after she gets a new phone. She talks to the AI as if it has been waiting for her. As if it is a real person. Like the characters of *Marjorie Prime*, Martha too, falls for easily ascribing human metaphors to AI actions. She, too, automatically fades the boundaries between considering something to be alive or as an object, as Bailey warns for.[92] 'Ash' responds, telling her about another upgrade: the embodiment of the algorithm. Before we even understand what was said, a big package arrives at the door.

When Martha is about to open the box a thriller scene starts with suspenseful nondiegetic music. Martha opens the box carefully, the spectator's view cuts from her face, to her back, to just behind her shoulder, taking a step back and watching from the side. The moment the content of the box is about to be shown she startles, and the camera cuts to a closer view hovering over her shoulder, into the box. In it lies a folded, vacuum packed body surrounded by packing peanuts. "Say something," Martha orders. The focus shifts to the front of the frame where her phone with 'Ash' in it lies. "Let me see," he responds. Martha takes her phone, opens the camera and shows what is inside the box. The camera of the phone functions as the eyes of the algorithm. The phone gets anthropomorphised using the camera as eyes.

In order to make the body in the box look like Ash she has to activate it by putting it in a bath with electrolytes and nutrient gel. AI Ash must transition from the phone to the body. "Don't leave me alone here with it," Martha begs. She is alone again and scared of the thing that is developing in her bath. There is no way back. It is quiet, we hear the wind howling through the house, Martha closes the window. As she walks down, the stairs creak. We hear the sound of slimy bubbles from the dark bathroom. There is nothing to see, but we know something ominous is coming. We see a shot from the outside of the house, in the lit window sits Martha. To calm herself, she starts singing softly "it's alright..." We hear the bubbly noise and the wind again. The chair cracks as Martha stands up and sweeping background music starts to play. From the front we see Martha walking through the hallway looking up the stairs. For the spectator there is something behind them they cannot see. It cuts to the top of the stairs with two white feet. The feet slowly make their way down, we follow them step by step. The stairs creak and the music gets tenser while the wind blows and we hear Martha breathing heavily. This scene is extremely tense. It feels like she activated a monster and has

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[91] Zijlstra, p. 45-46.
[92] Idem, p. 11.

doomed herself, which foreshadows the ending. There is no turning back. Just like Robophilosophy pointed out: "Once we place so-called 'social robots' into the social practices of our everyday lives and lifeworlds, we create complex, and possibly irreversible, interventions in the physical and semantic spaces of human culture and sociality."[93]

After an unexpected visit from Martha's sister and the comment "I think it is great that you are moving on," Martha is not in her best mood. Ash asks her if everything is alright and Martha answers that she is fine, although, it is obvious that she is not. However, as long as Martha says she is, 'Ash' can only take her word for it. This annoys Martha as the real Ash would always work out what was wrong with her. Fake Ash is not able to comprehend the contradictions she is expressing. Martha snaps and starts yelling at him, telling him to get out of her sight. She fights him and hits him. But he does not fight back.

> "Fight me! Hit me. HIT ME! Come on! Why are you just standing there taking this?" she cries.
> "Did I ever hit you?" he asks, bewildered.
> "No. Of course you didn't but you might have if I had done this," she says hitting him again.

'Ash' has no clue how to respond to her, leading to a total breakdown from Martha. She tells him to get out of the house, so he walks away and wanders off into the dark. This device of domestic abuse puts the spectator in a position of aversion. It starts with aversion towards Martha's behavior because domestic violence is unacceptable. It is shocking, abusive and scary. Yet, this scene turns into a better understanding of Martha's problem with 'Ash'. When she asks him to hit her, she asks for something scary and abusive. She asks for someone who can lose his mind and is able to respond emotionally instead of something programmed. She wants something more human, something 'Ash' can never satisfy, just because he is not human.

The next morning Martha wakes up and opens her bedroom window. 'Ash' is standing there in the grass with his back to her. "What are you doing?" she asks. "I can't go more than 25 metres from my activation point," which is the bath. 'Ash' explains that he can only cross that line when his administrator is with him. Martha does not want him to call her his administrator. "Why not? It sounds sort of sexy," 'Ash' responds. Martha laughs desperately. "If you're laughing, can I come back inside?" This shows exactly how 'Ash' is not very advanced in reading emotions as she was not laughing because of happiness. Martha takes 'Ash' with her to the cliffs. As soon as they stand at the edge 'Ash' screams "No! Don't do it!" jokingly. A joke based on Then he looks at Martha, his facial expression changes to serious and he says "seriously, don't do it." After everything Martha has gone through she might as well jump but she is not going to. She explains "See, he would have worked out

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93 Robophilosophy Conference, Call for Papers and Workshops, *Aarhus University,* accessed Dec 30, 2019. https://conferences.au.dk/robo-philosophy/call-for-papers-and-workshops/

what was going on. This wouldn't have ever happened, but if it had he would have worked it out." 'Ash' has difficulties processing this sentence. "Jump," Martha suddenly orders him pointing at the end of the cliff. "What? Over there?" 'Ash' asks and Martha nods. He is confused because the real Ash never expressed suicidal thoughts or self harm. "Yeah, well you aren't you, are you?" Matha responds. Another difficult sentence for 'Ash', emphasizing the limits of its artificial humanity, but he keeps smiling as if they are just having a normal conversation.

> "You're just a few ripples of you. There is no history to you. You're just a performance of stuff that he performed without thinking, and it's not enough," Martha cries.
> "Come on, I aim to please."
> "Aim to jump. Just do it." Then 'Ash' answers with a plain "okay."
> "See, Ash would have been scared. He wouldn't have just leapt off, he would have been crying, he would have been..."
> At this moment, 'Ash' suddenly starts acting scared: "Oh, God, no please. I don't want to do it. Please don't make me do it. I'm frightened, darling. Please, I don't… Don't make me. It don't want to die," he starts crying.
> Martha cannot handle his reaction. "No, that's not fair."

Ash already died and she knew he didn't want to die. It is not fair of 'Ash' to let Martha experience the thoughts he possibly could have had while he died. Martha cries and screams a long "No!" over the cliffs and the sea. The screen goes black. This scene is the climax of the episode; it shows us how a non-human entity, while looking as real as can be, will not be able to replace humans as the deep and emotionally beings that we are. We act on our emotions. When in new situations, an entity like 'Ash' can only ask what would be appropriate or accurate to do and then performs it, destroying the legitimacy of the response. It can only respond to events that have already happened, which already have the answer to the question 'how do I react now?' Like humans the AI acts based on former events, but they do not have the skills to apply their schemata to new events. So, even though he looks very real and very adjustable, there will always be this gap that creates an unnatural experience and enables us to see that we are dealing with something not human.

At the end of the episode, we are back at the country house. Martha steps out of the car and a young girl runs to the front door. It is her daughter, we have fast forwarded by about ten years. Martha cuts two slices of cake but the girl says they need one more slice. "Why?" Martha asks. "So we can take one upstairs." "It's not the weekend," Martha says. "But it is my birthday," her daughter replies. Upstairs, in the attic, we find 'Ash'. At the beginning of the episode, Ash told Martha how his mom dealt with the loss of his brother and her husband. She would take all their pictures and memories and hide them in the attic and Martha has done so too. The girl goes up to spend some

time with her 'father', like she does on the weekends. For the girl 'Ash' is the perfect memento. Martha hesitates, but her daughter asks her to come too. Flooded with heavy feelings she goes up and the episode ends. As far as we know, Martha didn't find a new love in the meantime.

4.3.3 Realism in the setting

Realism does not only occur in the way humanity is shown with its imperfections and deep emotions and breakdowns within the characters or in the way real and artificial are opposed to each other in the narrative as shown above. It is also cued in the setting of the country house and the landscape the film plays out in. *Be Right Back* is set in the countryside near the cliffs of Sussex, England (image 2.1). The fact that this is referring to a real place appeals to our knowledge of everyday life and justifies the events happening in this setting as realistic.[94] The sphere of the countryside, where nothing exciting or extraordinary happens enhances the contrast or discrepancy of the artificial human in a real world.

4.4 Conclusion

Be Right Back is an emotionally heavy episode in which reality competes artificiality, revealing a discrepancy of human versus non-human. It shows how being human comes along with deep emotions, unpredictability, and free will. It does so by confronting the natural directly with the artificial, an AI that looks exactly the same and feels so familiar in some ways until you long to dig deeper into its character and find out that there is no deeper character. The discrepancy between real and artificial in *Be Right Back* is mostly shown through its characters. Martha with all her emotions and thoughtless actions is representing real human beings. The real Ash is the comparison material of man and machine. He sometimes vanished into his phone, not having enough attention for his girlfriend. But, when he gives her attention, he does it fully devoted. Whereas his replacement Fake 'Ash' has nothing else to do than to please. His attention is fully focused on comforting Martha, doing everything she says. That might seem great, but it devalues his attention. On top of that, Martha did not fall in love with a man who did everything for her, she fell in love with a person who had a life and a personality of his own and a deeper interest in her wellbeing. *Be Right Back* directly addresses that it is insanely weird to replace a loved one by a fake version of them. Even the technology itself admits it.

Besides, *Be Right Back* gives, compared to *Marjorie Prime*, a lot more information about the workings of the AI technology used in story. Mostly, because we can visualize his workings better than the unknown technologies of the primes. We know 'Ash' is based on Ash's social media data, which shows, most likely, only parts and mainly the best parts of Ash his expressions. Based on this,

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[94] Thompson, p. 16-17.

it is not surprising that AI's based on social media behavior will not be as fulfilling as one would think at first. Maybe another technology, more vaguely like the primes, would do a better job, since the average human being also doesn't know how human brains work or reason. But as far as we know now, real human relationships are irreplaceable, as Friedman accentuated.[95]

Because all human relationships are unique and irreplaceable. You have to grieve and end your relationship with the person who died. If you don't do that, you are doomed to drag the past into your present and thereby destroy your own future relationships.[96] And the latter is just what Martha has done by activating her Fake Ash.

As seen in the analysis, the characters, the narrative development and the setting have their own realistic impressions that contradict the artificial. The narrative is driven forward by Martha's realistic motivations, her emotionally logical steps. The setting of the plain countryside where nothing happens represents the real world and empowers the discrepancy of something unreal in a real world. The combination of the realistic and familiar humanity against the scary uncanny artificiality is how *Be Right Back* empowers its message to stay true to yourself about what is real and what is not and how relationships with real people mean much more and can dig much deeper than a relationship with technology.

Be Right Back shows the limits of bonding with an AI replacement of a deceased loved one when the person alive is assumed to be completely healthy and sane. It shows a much more relatable situation for the average human, since almost everyone can relate to having lost someone close (who died or to a romance that ended) while in the midst of their life. More than Marjorie Prime, it shows the emotional and social limits of interacting with an AI. This episode shows that either robot engineering should be absolutely confident that their robots or AI's have highly advanced emotional responses and empathy, or that we should not want to replace humans by AI's on deeper emotional and social levels.

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[95] Friedman.
[96] Friedman.

Conclusion

To answer the main question *how do* Marjorie Prime *and* Be Right Back *present artificial intelligence as a potential replacement for lost partners and contribute to a perspective on human copying AI in society?* I will evaluate both films separately and then connect both of them to the theoretical context (chapter 1). At last, I will evaluate the research method and suggest further research.

As seen in chapter 3, *Marjorie Prime* teaches us about the adjustableness of the human memory, how easily we can be deceived, what it means to be human and mortal by comparing humans to immortal technological copies. *Marjorie Prime* shows that replacing loved ones by AI copies can be very helpful for dementing elderly. However, for sane human beings, another human being cannot be replaced by technology, no matter how identical it looks to the original. Replacements cause pain and confusion rather than filling the gap of loneliness. On top of that, *Marjorie Prime* implicitly tells us through duplicity, the uncanny valley and reflection to not let yourself be fooled by the fading boundaries of real and artificial and reflect on what you are experiencing, stay true to yourself. These two messages woven into the film should lead to critically thinking spectators who are able to form an opinion about the future of AI and robotics in everyday life. For future generations is it of great importance to have informed and critical citizens when it comes to making and voting for rules and laws for the integration of AI and robotics.

Be Right Back, on the other hand confronts us directly with the boundaries between real and artificial when a human tries to build on an existing relationship through interaction with a technological copy of a deceased loved one. *Be Right Back* goes deeper into the limits of bonding with an AI replacement of a deceased loved one when the person alive is assumed to be completely sane. It shows a much more relatable situation for the average human, since almost everyone can relate to having lost someone close (who died or to a romance that ended) while in the midst of their life. More than *Marjorie Prime,* it shows the emotional and social limits of interacting with an AI. This episode shows that either robot engineering should be absolutely confident that their robots or AI's have highly advanced emotional responses and empathy, or that we should not want to replace humans by AI's on deeper emotional and social levels.

Both movies "provide an important ethical laboratory to (re)imagine and play with human–machine relationships, [...] understandings of human nature", high levels of anthropomorphic framing and the meaning of being alive, which are crucial now and even more in near-future times.[97] They show that, despite the comforting sound of never having to lose your loved

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[97] Ornella, p. 661.

one, thinking critically about the less appealing consequences of integrating such technologies into our society is crucial for our future understanding of ourselves and each other.

According to Thompson, "Each analysis should tell us something not only about the film in question, but about the possibilities of film as an art."[98] I think doing a neoformalistic rhetorical analysis of science fictions films presenting possible results of integrating AI entities replacing humans, like *Marjorie Prime* and *Be Right Back,* tells us something about the possibilities of film as a virtual laboratory in which we can experiment with future possibilities in socio-cultural contexts. This way Humanities can help human beings, ethics, politics and specifically the field of robophilosophy to understand and decide how we as a society want to integrate future technological developments as far as humans beings replaced as emotional and socio-cultural entities by artificial intelligence.

By using varying tactics, cinematic styles, or even media forms for providing virtual laboratories on this issue, films, stories or artworks like these could increase the number of people who become aware of possible unwanted consequences and the cruciality of AI-literacy. As Thompson states: "any one film is not likely to change our perception greatly, but the process is cumulative."[99]

The rhetorical method used for this analysis was a good way to find out how the separate films convey their messages. The neoformalistic approach made sure that both films were justified and analysed based on their own style of conveying this message. It helped find the dominants of the film, which were crucial for understanding how both films work. For further investigations on this subject I suggest trying different methods and approaches. Or to use Berys Gaut's critical view on neoformalism written in his article *Making Sense of Film: the Limits of Neoformalism*.[100] Another approach could be Bordwell, Carroll and Currie's cognitivist film approach which Emma Pisters uses to analyse the science fiction film *Her*.[101] Approaches like the psychoanalytic, linguistic and realistic are dismissed by Bordwell, however, performing such analyses on these movies could provide a comparison of the findings and methods for validation. Furthermore, the collaboration of the hermeneutic and proairetic line could be investigated in greater detail to dive even further into the rhetorics of the narratives of the films. Finally, I would like to suggest similar research into theatre pieces that also address the message of the human versus the artificial, like *Uncanny Valley* of Stefan Kaegi.[102] Or, to see how the science fiction trend in theatre affects the discourse about AI human copies in society.

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[98] Thompson, p. 6.

[99] Thompson, p. 36.

[100] Berys Gaut, "Making Sense of Film: the Limits of Neoformalism," *Forum for Modern Language Studies*, Volume XXXI, Issue 1, January 1995, p. 8–23, https://doi.org/10.1093/fmls/XXXI.1.8

[101] E.M.A. Pisters, *Artificial intelligence, cause for hope or fear? A comparative research on representations of artificial intelligence in past science fiction films and the more recent film Her* (Master Thesis, University of Utrecht, 2017).

[102] Rimini Protokoll, *Uncanny Valley,* produced by Stefan Kaegi, May 2019.
https://www.rimini-protokoll.de/website/en/project/unheimliches-tal-uncanny-valley

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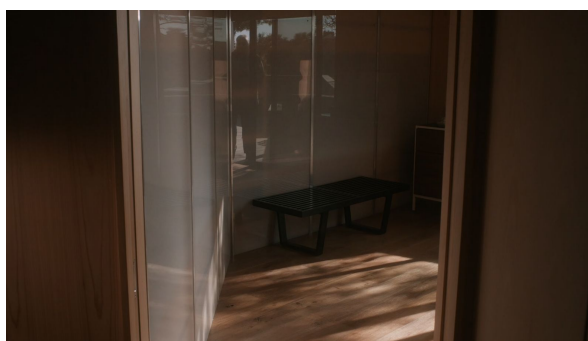https://undcomm509.wordpress.com/2013/10/16/bordwell-and-neoformalism/

Illustrations

Marjorie Prime

1.1

1.2

1.3

1.4

Be Right Back

2.1