In the Mood for Love

Embodiment and Intentionality in NPCs

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CONTENTS

THIS CHAPTER EXAMINES THE EXPERIENCE of romantic love between a player and a non-playable character (NPC) in the context of single-player avatarial games. "Romantic love" is to be understood here as the experience of being in love with someone. As such, it is demarcated from other types of love, (e.g., love for friends, family members, divine love, etc.). In this chapter, it is argued that for a game to successfully afford the experience of romantic love there are two main challenges that need to be addressed. One is the embodiment of the NPCs and the other is their intentionality. This means that the game should provide for NPCs that are to be perceived by the player as autonomous subjects with their own intentions and goals rather than passive bodies that cater to the player's agency. The argument is built upon embodied perception, Merleau-Ponty's

phenomenology, and Sartre's existentialism. It is finally argued that this challenge will eventually be overcome by artificially generated agents rather than fictional, designed characters.

INTRODUCTION

Olli Tapio Leino (2015) in "I know your type, you are a player: Suspended Fulfillment in Fallout: New Vegas" discusses three types of love that can be afforded in video games. He calls those three types of love: vicarious love, fictional love, and love in bad faith. According to him, vicarious love is felt by the player when they see themselves as distanced from the romantic relationship, which takes place between the avatar and the NPC. Fictional love, on the other hand, is when the player feels romantic attraction for an NPC while being aware of the NPC's fictionality, namely that they are not real so the only romantic relationship the player can have with them is in the context of role-playing. The last type of game love is defined by Leino as love in bad faith, which means that the player refuses to acknowledge the fictionality of the NPC by refraining from participating in those in-game actions that will shatter their illusion that there can never be a real romantic relationship between the player and the NPC.

Using *Fallout: New Vegas* as his example, Leino describes how he purposefully avoided interacting with the NPC Rose of Sharon Cassidy during his playthrough so as to sustain the illusion of having the possibility of a real romantic affair with her. He compares his experience to that argued by Sartre as bad faith. He contends that this experience of romantic love is the closest to a real relationship a player can have in a video game and that it is a medium-specific experience different from other media, which offer de facto fictional romances. He argues that even love in bad faith sooner or later is transformed to vicarious or fictional love, exactly because it is very fragile: a single interaction with the game system can potentially disrupt this experience in the same way that bad faith cannot be sustained for long in the physical world as well.

Notwithstanding the different experiences of romantic love the player can have in games, Leino's argument stems from the same fundamental premise: there can never be an authentic romantic love relationship for the player with an in-game entity. For Leino, this is due to the ontic difference between the player and the NPC. This reality is what the player tries to forget when they are acting in bad faith. But what exactly is this ontic difference? Leino connects it with the NPC's, Cassidy's in this case,

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fictionality. As a fictional character, Cassidy has certain limitations, which deny the player the romantic fulfillment of their attraction to Cassidy or any other NPC: "The knowledge of Cass as less than real implies knowledge of the impossibility of fulfillment and as such is prone to killing the uncertainty characteristic to romantic attraction, hence revealing the feelings of anticipation as plain pretense."

Leino pinpoints the fictionality of the NPCs in the same way that Aarseth talks about the difference between virtual and fictional in relation to doors in digital games. Aarseth (2007) argues that in digital games there are some doors that can be opened, which are then virtual, and some that are only decorative, which are fictional. Following the same rationale, Leino contends that NPCs are both virtual and fictional: in some aspects, they can be interacted with so that makes them virtual while in some others they cannot so they are fictional. In the player's falling in love with them they are fictional because, according to Leino, the player cannot fulfill their romantic attachment with them. In this sense, he calls this type of love fictional, since it is formed with a fictional character. Leino does not call the emotion experienced by the player fictional but only the object of the player's affection: "qualities of emotions do not necessarily have anything to do with the qualities of the actually existing object of the emotion."

Thus, Leino concludes that a person can fall in love with a fictional entity, yet this cannot be an authentic romantic love because if a person knows that they are in love with a fictional being then they are aware that their love can never be fulfilled. This claim demands closer consideration. It is argued that it surpasses Leino's game example and can be examined for drawing conclusions for human-player to NPC romantic interactions in single-player, avatarial games in general. Avatarial is understood in the sense of a game that includes a visible, in whole or in part, body which is controlled by the player and an implied, most of the times at least, second body, which constitutes the camera body; this second body follows the playable character and can be directly controlled by the player or not (Rehak 2003, 109). Indicative titles of avatarial games that include player-NPC romance are: the *Witcher* series (2007–2015), the *Mass Effect* series (2007–2012), *Batman: The Telltale Series* (2016), *Heavy Rain* (2010), *Life is Strange* (2015), and *Catherine* (2011).

How exactly does the fictionality of the NPCs in such games not allow the fulfillment of authentic romantic love? Leino does not go into detail when it comes to this; the NPCs' inability to have a romantic relationship is

explained by their fictionality. Here, the ontic difference between the real player and the fictional NPC is further analyzed. The argument revolves around two main anchors: one is the embodiment and the other is intentionality. It is argued that these two aspects constitute the NPC's fictionality when it comes to romantic love and as such challenge the ability of games to offer an authentic romantic love experience between a player and an NPC.

PHYSICALITY AND EMBODIMENT

The first aspect, embodiment, is arguably the most overt. The player possesses a physical body and the NPC does not. To experience romantic love is usually tightly connected with its embodied aspect. Evolutionary psychologists, biologists, and neurologists having examined the physiology of humans argue that romantic love is an evolutionary system in the human brain activated by certain hormones and amino acids (Fisher et al. 2002; Sternberg and Weis 2006; Bartels and Zeki 2000; Beauregarda et al. 2009; Langeslag et al. 2012). As a physiological system romantic love is connected to reproduction and sexuality, therefore physicality constitutes a significant part of its experience (Platek et al. 2006; Fisher 1997; Meyer et al. 2011; Jones 1996). At the same time, the poetics of romantic love speak of a different story. Platonic love is a whole attitude towards love, in which physicality is refused (Price 1981). Romantic love as a literary genre is founded in works, in which "love did not have as its aim either carnal pleasure or reproduction" (Paz 1995, 90). This becomes more prominent in the Romantic era, during which love is treated in the duality of the beautiful and the sublime (Eldridge 2001).

Nevertheless, as Mario Praz notices the sublimity of the romantic object of desire is an experience infused with terror, pain, and mortality—all of which constitute a testimony to one's own physical body (1951). In the same fashion, platonic love does not negate the physicality of lovers. The lovers choose not to contemplate the physical traits of their relationship because they are very well aware that they are there. The possibility of platonic love turning into physical is always present (Secomb 2007; Plato 2018). Instead, the NPC's physicality is never a given. It is not that the player chooses not to notice the physicality of the NPC but rather the player must refrain from thinking that the NPC is not a physical being so as to retain as much as possible the illusion of a romance. This is indeed an ontological difference between the physical player and the virtual love interest. Yet does this affect the perception of the NPCs by the player as

embodied agents they can fall in love with? I argue that human players indeed perceive virtual characters as embodied agents due to embodied perception.

Following a cognitive neuroscience perspective, Morrison and Ziemke (2005) examine how human players relate to computer game characters. They argue that when we play a video game our brains transform figures on a flat screen to embodied characters. As they explain this is due to the mechanism of visuo-affective mappings, which "transform visual information about someone else's emotional state into similar emotional dispositions of our own" (73). Visuo-affective mappings compliment the already known visuomotor mappings "when objects in the coordinate system of external space are transformed into a coordinate system of which the body and its effectors (e.g., hands, arms) are at the center," and visuo-tactile mappings "in which visual and touch information become integrated into the brain's representational body schema" (74).

Gallese (2005) explains in more detail the neuroscientific workings of embodied perception. We perceive the space surrounding our body, our peripersonal space, the space which our body can act upon and affect, in a different fashion than the extrapersonal space. We do not visually code peripersonal space using a Cartesian or another geometrical system. Instead, our peripersonal space is a motor space, a space which we perceive by a "simulated motor action directed towards a particular spatial location" (26). Our body moves in the space it acts in and not in a predefined space of coordinates. Experiments further support these findings by showing that in the case of peripersonal space the spatial location of an object perceived by brain neurons has dynamic properties according to the change in time because it is a motor space and hence susceptive to time. According to Gallese action and spatial awareness are connected: "Vision, sound, and action are parts of an integrated system; the sight of an object at a given location, or the sound it produces, automatically triggers a 'plan' for a specific action directed toward that location" (27). This plan, according to him, is a "simulated potential action" (27). This means that we perceive our peripersonal space by what action plans it can sustain.

As Gallese remarks: "it is interesting to note the closeness of the view emerging from single neuron recordings, and the philosophical perspective offered by phenomenological philosophers on space perception" (27). Indeed, phenomenological space connects perception with movement; from Husserl and Heidegger to Gadamer, Sartre, and Merleau-Ponty (Zahavi 2002). Building on Husserlian and Heideggerian phenomenology,

Merleau-Ponty (1962) set perception as the means by which we experience our world. According to his theory, we are by default subjects of perception and intentionality, intended actions that is, and this is how we experience existence, which is being in the world. He has argued that we perceive our world around us by the tasks we perform with our body. Our phenomenal body structures our world in accordance with its intentional relations with the objects around it. People perceive the world not as an ideal concept, but as a process of making meaning of their bodily intentions; their world exists based on their bodily actions. As a result, the body perceives both the world functioning as a subject and at the same time the body itself as the object of this making meaning process.

This body is not the fixed body of human anatomy. It is a lived body that has the ability to expand and extend. Merleau-Ponty gives an example of this in the walking stick of a blind man. For the blind man, Merleau-Ponty concludes, the stick is now part of his body, thus his body does not stop at his hand anymore but rather at the end of his stick providing him with expanded intentionality and perception of being. In the words of Merleau-Ponty, "the blind man's stick has ceased to be an object for him, and is no longer perceived for itself" (165). The same applies to instruments and tools. Merleau-Ponty describes how when a secretary masters the blind system of writing on a typewriter, the typewriter stops being an object for her body, but instead constitutes an extension of her bodily abilities that affords a novel intentionality and perception: "To get used to a hat, a car or a stick is to be transplanted into them, or conversely, to incorporate them into the bulk of our own body" (166). Then the stick and the typewriter are no longer perceived objects but instruments that augment our perception: "a bodily auxiliary, an extension of the bodily synthesis" (176).

Applying Merleau-Ponty's theory to video games, Rune Klevjer (2012) argues that the same workings are at play when we experience a game world. According to him, the avatars in games function as extensions of the players' body that allow them to extend their own bodies inside the screen. He particularly calls them "proxies" of the physical body inside the game world, since when the player controls an avatar the avatar is not any more an object on itself but an extension of the body of the player on screen (30). Klevjer describes the control of avatars like controlling a marionette, through which the bodily actions of the player are extended to the screen, on the environment of the marionette, enabling the player to inhabit by proxy the avatar's world.

For Klevjer, the in-screen extension demands an alteration of materiality that is essentially unique. When Merleau-Ponty says that for the blind man his body used to be here, where his fingers end, but with his stick his body is now there, at the point of his stick, both here and there reside in the same physical world. That is not the case with digital games. Klevjer contends that this is where the simulation of digital games lies; in the conceit of the continuation of tangibility. Nevertheless, I argue that this pretense of materiality does not affect the extension of the body, since this extension is a matter of perception. After all, although Merleau-Ponty had not anticipated a phenomenon like digital games, his theory is not limited by physicality: "The word 'here' applied to my body does not refer to a determinate position in relation to other positions or to external coordinates, but the laying down of the first co-ordinates, the anchoring of the active body in an object, the situation of the body in face of its tasks" (1962, 115).[1]

Merleau-Ponty may have conceived his theory based on the physical world, yet he did not consider it a prerequisite. On the contrary, it is the ability to manipulate one's body according to one's own intentions that attributes the state of worldness to the surrounding environment: "I can, therefore, take my place, through the medium of my body as the potential source of a certain number of familiar actions, in my environment conceived as a set of manipulanda" (120). Thusly, if we can act upon an environment to achieve certain tasks, then we immediately experience this environment as our world. We only need a body to *anchor upon* objects within this environment. In that sense, digital games offer the potentiality of worlds the player can inhabit, as they are environments the player can perform actions in. The fact that digital games are images on a flat-screen makes no difference to our perception. Since we can act on this space we perceive it as our peripersonal space, the space of our embodied actions.

This argument is supported by the neuroscientific application of Morrison and Ziemke mentioned before. They contend that our perception works the same way when we perform tasks in our physical world and "when we navigate through apparent positions in a game world, using the joystick to act upon objects within the game world as if our veridical hands were actually in that world's space" (Morrison and Ziemke 2005, 74). How does this relate to the player's treating NPCs as embodied agents? This is

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[1] Heidegger's term would be *Geworfenheit*, being thrown into the world (1967, 135). For a more comprehensive application of the term to digital games see Vella and Gualeni (2019).

explained by the visuo-affective mappings referenced by Morrison and Ziemke, which are activated when we experience the emotional responses of others, in a virtual or the physical world. The cognitive workings of this are discussed in the following section.

AGENTS OF EMBODIMENT

Our embodied perception described above is equally responsible for our perception of other bodies as intentional beings, namely agents of intended actions. This again is connected with our body schema described by Gallese (2005). Our social coexistence demands that we are able to interpret the goals and intentions of the other bodies we share our environment with. This is a useful survival skill that we are able to achieve by relying once more on the simulation model we use to perceive our own movement and space. In other words, when we see someone performing an action our respective motor schema is activated as if we are the ones performing this action (Gibbs 2005, 35). By this translation of third-person observation to first-person perspective, we can apply to this action the goals and intentions we associate with this particular motor schema (Gallese 2005, 35). In this capacity, we perceive the embodied agents around us not simply as bodies performing actions but, as Gibbs contends, as: "volitional agents capable of entertaining, similarly to us, an agentive intentional relation to the world" (35–36). As such the other body becomes more than a representational system of behaviors, it becomes a person; or in phenomenological terms, the other does not merely have a body but they are a body, namely

AQ 2 an "embodied subjectivity" (Zahavi 2007, 19).

Research has shown that humans and humanoids possess bimodal neurons called mirror neurons which help them perceive the actions of others as their own actions and thus understand them: "Action observation causes in the observer the automatic simulated re-enactment of the same action" (Gallese 2005, 32). This is true not only when humans perceive the actions of others but also their emotional responses: "We are not alienated from the actions, emotions, and sensations of others, because we entertain a much richer and affectively nuanced perspective of what other individuals do, experience, and feel" (31). For example, there is a common activation in our brains related to pain, disgust, touch, and fear when we both feel the emotions and see others experiencing them (Morrison and Ziemke 2005, 76). What is of particular importance for the current argument is that based on neuroimaging studies the brain area related to spatial cognition "did *not* differ between viewing agents in the real and

virtual worlds" (74). That means that even though real and virtual worlds activate different networks of the brain, probably because of the "differences in the visual realism of the scenes" (74), our perception of others as embodied agents of enactment and emotional reactions does not differentiate between materialities.

Still, our brain system exhibits more intricate nuances. An fMRI study performed by Buccino et al. (2004) found that the mirror system responses of human participants did not differ significantly when they watched other humans, dogs, and monkeys biting food. Different networks were activated when the same subjects observed the objects performing activities that were species-specific: talking, barking, and lip-smacking respectively. It seems that our human brains tend to understand embodiment based on tasks that they have associated with their own embodiment, tasks that they perform with their own body. Biting food for a dog and a monkey is a motor-scheme similar to how humans bite their food. On the other hand, humans do not bark nor smack their lips.

Hence, we recognize as embodied agent an agent that manipulates their bodies in a similar fashion as we do, no matter if this agent shares our ontology. We perceive them as such because this is how we can relate to them, by bringing along our own perception and consciousness, which are bound by our embodiment and physicality. It is in this capacity that I can perceive the consciousness of the others. In Merleau-Ponty's words: "The other consciousness can be deduced only if the emotional expressions of others are compared and identified with mine, and precise correlations recognized between my physical behavior and my 'psychic events'" (1962, 410). How this transformation works depends on our biology, culture, and personal experience (Gibbs 2005). It is highly influenced by the degree of expertise of the subject on the performed action. Familiarity helps people translate bodily movements and emotional responses of others better (Gallese 2005). The general direction is, however, that we are far more likely to anthropomorphize other agents than the other way around (Basu and Dickstein 2018; Turner 2017; Roffe and Stark 2015). We simply look for agents that resemble us everywhere because this is how we perceive our world. It is much easier for us; it is a perception in the first instance.

Understandably, realism plays an important factor in facilitating our perception of designed others as embodied agents. Rigid movement of a robot arm causes less identification with one's own arm movement (Morrison and Ziemke 2005, 77). Morrison and Ziemke make that

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connection to videogames: "It is intuitively obvious that the realism of display would play a part in the extent to which the user becomes engaged in the game world" (77). At the same time, not only does our perception influence virtual agents but virtual agents influence our perception (77). In the same fashion that our body can be augmented and/or added upon by tools, our constant exposure to virtuality can broaden our perception to include manifestations of embodiment that go beyond our physical world. In the same vein that typography created the typographic man of McLuhan (2011), virtuality may create the virtual human.

EMBODIED DESIGN

To bring this back to romance in digital games, the lack of physicality of NPCs does not deem them de facto fictional as romantic partners to our perception. They may not possess a physical body, but our perception of them allows us to bestow them with a body similar to our own. Verisimilitude is understandably important so as to eventually overcome the effect of the uncanny (Tinwell 2015). What is equally important is how virtual bodies can be perceived by the human player as bodies for love or, more difficult still, as bodies in love. The design, the mechanics, and the narrative can help facilitate or shatter this perception. Kirsch argues in favor of a human-computer interaction design, which will take an embodied perspective (2013). He specifically argues that embodied cognition in digital design may open ways for us to think in new ways that are now inconceivable.

His rationale follows the principle that our interacting with tools changes the way we both think and perceive the world around us. Referencing neurophysiological, psychological, and neuropsychological research, he contends that the use of tools changes our body schema and our perception of space. This change is manifested despite the ontology or materiality of the tool: "our sense of where our body boundaries are, and what in space we can affect can be altered through telepresence and teleimmersion" (8). In this sense, we can employ digital tools and as such perceive digital space as the space of our action. The digital tools not only allow us to manipulate a materiality beyond our own but "in addition to altering our sense of where our body ends each tool reshapes our 'enactive landscape'—the world we see and partly create as active agents" (3). In other words, according to the tool we are using we perform our being in the world—for example, when one is holding a pen they experience their world as the accumulation of everything that can be written upon and at

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the same time since they can perform writing actions with the object they are holding they perceive it as a pen.

The more familiar and capable one becomes with the tool, their perception of the world changes as well. This is a dynamic process of expertise: "the concepts and beliefs we have about the world are grounded in our perceptual-action experience with things, and the more we have tool-mediated experiences the more our understanding of the world is situated in the way we interact through tools" (3). Kirsh borrows this position that people experience their environment by the ways it allows them to interact with it from Gibson, who introduced the term affordances (1966). The more actions we can perform with our bodies the more affordances our environment provides (e.g., if you can juggle you can see an object as affording juggling) (Kirsh 2013, 3). Gibson did not mention tools in his theory, yet as Kirsch suggests since the world is perceived in relation to the action repertoire of the perceiver, then "with a tool, the action repertoire is increased to include tool-enabled actions, so there ought to be new affordances to perceive" (9).

Kirsh connects perception with goals (10), bridging the gap of Gibsonian exegesis with phenomenology and embodied enactment, a definition proposed by Varela et al. (2016) according to which the world is a product of co-creation with an agent when this agent acts in a goal-oriented manner. Kirsh argues that designers create enactive landscapes: a structure that includes a "set of possibilities that can in principle be brought into being when an agent interacts with an underlying environment while engaged in a task or pursuing a goal" (2013, 11). This is not new in game design. Game environments incorporate game objects and/or objectives that afford certain actions the players can perform (McBride-Charpentier 2011; Cardona-Rivera and Young 2013). The added value of embodied cognition, besides providing a solid theoretical and scientific background, is that it explains how humans interpret the behavior of other agents with whom they share this virtual environment.

As it was argued before, when we see someone performing an action we translate this to as if we were the one performing this action. This is not only a matter of visual perception but of sensory interpretation in general. More importantly, we not only experience the other person's action as if it were our own but by doing so we apply certain goals, intentions, and sense to this action. This is our way of understanding the behavior of others in our social environment and based on this knowledge we can also predict behavioral patterns that will eventually be executed by

others. In digital games, where the other agents inside the game world are designed, if we want the players to perceive NPCs as romantic agents, then they must perform and exhibit romantic intentions in an environment that affords actions we associate with romantic love.[2] The NPCs not only have to look as real as possible; they must allow through their actions, reactions, and interactions with the player and the environment to be perceived as bodies in love.

Grace (2017) explains that the type of involvement that games allow between the player and the NPC also affects the player's experience of them. As such, NPCs may afford the experience of romantic love if the player can interact with them romantically. This is not as straightforward as it may sound, however. What does romantic interaction entail? For some games, it is to include game verbs that are culturally associated with romantic love, such as flirting, kissing, hugging, and making love. These are the mechanics used in different variations in the *Sims* series (2000–2019) for example, or in *Singles* (2003–2005).

Here one needs to note that the inclusion of a verb that implies romantic involvement does not solve the challenge as such. Having reviewed a vast corpus of affectionate games, Grace (2017) remarks how popular flirting games make use of the affectionate verbs just like a shooting game; the action of the verb is directed from the player to the NPC yet instead of the player throwing bullets, knives, and punches, they now throw kisses and hugs until they find their target and/or achieve their goal. A similar design is for the player to be collecting points through various in-game actions, which in turn increase the approval of the NPC until the player manages to win them over and/or unlock their romantic story tree path; a design choice used predominantly in dating Sims and otome visual novels, like *Clannad* (2015) and *Hatoful Boyfriend* (2014).

In those approaches, the NPC is a passive object to the player's agency. Such an implementation of romantic love and affection trivializes and simplifies the experience of love. This brings us eventually to the second issue pertaining to the games' inability to offer an authentic romantic relationship between a player and an NPC, namely the NPCs' lack of intentionality. As it was argued above, NPCs' ontic difference in terms of physicality can be overcome because our perception helps us, if not forces

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[2] An interesting perspective on this is Doyle-Myerscough's analysis of intimacy in *The Last Guardian* (2019). It does not concern romantic love per se but intimacy is arguably a facet of it. Doyle-Myerscough describes how the gameplay of *The Last Guardian* helps build intimacy among the player, the playable character, and the NPC, which is an animal in this case.

us, to bestow embodiment to any agent that resembles us and shares our enactive space. The game design can facilitate this perception by means of verisimilitude and affording agency and embodiment to NPCs; meaning that the NPCs should be designed as bodies performing tasks in a world on the basis of their own specific goals, means, and intentions.

For romantic love, in particular, NPCs should be designed as intentional romantic interests or partners for the player. This is arguably the biggest tension between the physical player and the virtual NPC because NPCs as designed and coded behavior cannot bear the proof of intentionality for us to perceive them as intentional beings. In this capacity, the inclusion of romantic love in games is inherently challenging because the game must actively create and maintain the illusion that the agents the player interacts with are capable of intention and romantic love for that matter. In the following section, the NPCs' lack of intentionality is further explained by drawing on Sartre's existentialism.

EXISTENTIALIST LOVE

For Leino (2015), authentic romantic love is defined by reciprocity between two free human beings. What does Leino mean by that? Leino treats romantic love under the lens of Sartre's existentialism. Expanding on phenomenology, Sartre (1956) starts from the thesis that being is nothingness, in the sense that there is no one way to be. In actuality, we are not being at all. Our actions define our conduct but not our being. In this regard, one's existence is constantly in virtuality (i.e., fluidity between modes of being, which are never one's own being). At the same time, one's conduct is highly deterministic in nature by forces beyond one's control. Sartre takes the example of a homosexual man, whom he calls a pederast. The pederast, according to Sartre, is a pederast because he has the tendency to be one: "To the extent that a pattern of conduct is defined as the conduct of a pederast and to the extent that I have adopted this conduct, I am a pederast" (64). At the same time, a pederast can deny being a pederast while behaving as a pederast, because he does not will himself to being a pederast: "But to the extent that human reality cannot be finally defined by patterns of conduct, I am not one" (64).

Sartre differentiates between being and behaving. More precisely, he differentiates between the unconscious deterministic behaviorism of the human beings and the conscious actualization of one's being. In this, he follows Freud's distinction between the id, the unconscious, and the ego, the conscious (50). For Sartre, we are the ego but not the id, yet this ego is a series of phenomena rather than a fixed totality. As a result, ontologically

our ego is nothing. We will it to existence by establishing our psychic phenomena in a conscious reality. The pre-existence of the id notwithstanding, one is free to be conscious of their being not being the id despite conducting the behavior dictated by the id. The homosexual's behavior is determined, as Sartre claims. Nonetheless: "he has an obscure but strong feeling that a homosexual is not a homosexual as this table is a table or as this red-haired man is red-haired" (64). For Sartre, our freedom, despite our predetermined conduct, resides in our consciousness, which realizes that our being is nothing.

The same applies to how we perceive the consciousness of the others and how they perceive ours. We perceive their conduct but their consciousness is always absent for us, because it is nothing, a thing in potentia: "It is the object always present as the meaning of all my attitudes and all my conduct—and always absent, for it gives itself to the intuition of another as a perpetual question—still better, as a perpetual freedom" (61). This duality of existence finds its way also in romantic love. Sartre argues that what the lover wants is to essentially capture the consciousness of the other, their freedom that is: "It is certain then that the lover wishes to capture a 'consciousness'" (366). It is not the physicality of the other, but rather "it is the Other's freedom as such that we want to get hold of" (367). By that Sartre means that the lover wants to conquer the beloved not because of their psychological determinism. At the same time the lover does not want a love out of conscious choice alone either: "Who would be satisfied with the words, 'I love you because I have freely engaged myself to love you and because I do not wish to go back on my word'" (367).

It is in this human condition of oscillating between the determinism of the id and the nothingness of the being that Sartre sees love finding its expression. In Sartre's love one does not seek either; they instead seek this contradiction of constant instants: "In love it is not a determinism of the passions which we desire in the Other nor a freedom beyond reach; it is a freedom which plays the role of a determinism of the passions and which is caught in its own role" (367). Or in other words, the beloved must will themselves into being in accordance with the lover or rather for the lover. As existence is willingness into being, in love this willingness must find its limitation on the face of the lover. The lover "wants to be placed beyond the whole system of values posited by the Other and to be the condition of all valorization and the objective foundation of all values" (369).

Love, as Sartre explains it, is not in the world. Instead, it makes the world depending on the beloved, this specific Other. When the lover demands

love they do not demand an object to be given: predefined behavior or conscious freedom. They demand an actualization of being, a particular willingness that is born specifically for them and by its birth it limits the willingness of the beloved as its point of reference and determination: "I must no longer be seen on the ground of the world as a 'this' among other 'thises,' but the world must be revealed in terms of me" (369). Cleary sums Sartre's take on love by suggesting that "loving is intentional: it is love of and sparked by someone" (2015, 112). In this understanding of love, loving is a free action. Anything else would make the beloved "no more than a robot" (106).

Love in this existential context poses indeed a significant challenge when it comes to mediating romantic love in digital games. This is because NPC's perceived intentionality when it comes to love is falling in love with a generic other and not the nominal player in their individuality. In actuality, in most digital games the player has no problem understanding that an NPC is in love. Their coded behavior is quite clear following the paradigm of other romantic love mediations or simulating human psychology and behavior as we know it. The challenge is to show the player that an NPC is in love with *them*; that their coded behavior is not to exhibit a set of actions that the player will perceive as their having fallen in love but as their having fallen in love with the player as in their unique subjectivity.

Leino's ontic difference between player and NPC is, in fact, this lack of freedom that plagues the NPC. The NPC cannot will itself into being in love. It may conduct itself as a person in love would, yet this conduct remains strictly that: conduct and not being. In this regard, the NPC remains always a coded behavior but of a different determinism than that of the human player. More importantly, the NPC does not possess the means to will the specific otherness constituted in the player. The NPC is designed to fall in love with a generic other. On the other hand, the player themselves cannot freely choose the actualization of their being. In order to experience the love offered by the game, they need to execute predetermined commands. If they do not, then their own willingness results to nothing. In the context of games, Sartre's nothingness takes on a different or added meaning. It is not the nothingness in the sense of infinite possibility. It is the nothingness of the absolute non-existence.

In the game *Dragon Age: Origins* (2009) the player can romance different in-game characters. The player uses some crude mechanics to make the NPCs fall in love, like giving them gifts, which increase their approval, which is measured in a numbered bar below their name in the player's

inventory. These mechanics are only part of the problem. If the game implemented a more sophisticated design the player could not see them at all.[3] But they would still be there, in the sense that the code of the game demands certain commands so as to execute specific parts, in this case, the NPC's behavior to the player. If the player does not do A, then the NPC will not do B. The player must necessarily perform certain in-game actions so as to activate the command for the NPC to fall in love.

This translates the process of the NPC falling in love with the player into a puzzle with a quantifiable outcome of true or false. Or, as Khandaker-Kokoris (2015) suggests, the player should manipulate the code to get the romance as a reward: "Press the correct sequence of buttons in order to get them to sleep with you." It is then argued that the real challenge games need to address when mediating love is to conceal from the player this mechanistic approach that corresponds to the NPC doing B no matter who performs A. In other words, in games and in any context that a human agent perceives coded behavior, the challenge is for the system to make the human agent perceive this behavior as caused by and directed exclusively to this individual human.

INTENTIONAL BEING

That being said, how does this approach account for players who argue that they feel something akin to romantic love with an NPC? Waern (2015)

AQ 6 recounts fora entries by people describing their *Dragon Age: Origins* experience. As Waern references, players detail their romance experience as having fallen in love with characters that the players themselves call non-real. They even recount instances of jealousy when they watch pictures and videos of their chosen beloved with other players' avatars online. There are people who feel guilty when they romance one character while being in an established relationship with another character. The same happens when they choose to romance a different character in their second playthrough; they say that they cannot resist their first love and end up romancing the same companion again despite their original plan.

Players can indeed feel strong emotions for virtual characters, which they themselves describe as love. They are positively aware that those characters are not real but they still love them. Whatever love for those players

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[3] Arguably, the other installments in the series incorporate more subtle mechanics without managing, however, to overcome the challenge discussed here, see: *Dragon Age 2* (2011); *Dragon Age: Inquisition* (2014).

is, they argue that they feel it for virtual characters. They do not use any other word; they say *love*. The feeling and/or experience they have come to know as love from their personal life is the same as what they feel in the game world. Since they call it love it means that what they themselves consider and perceive as love, erroneously or not, is ascribed to their experience both in the physical world for other physical beings and in the virtual world for virtual NPCs.

How can this happen? Waern explains this phenomenon with the term "bleeding," which has primarily been used within role-playing communities and expresses the experience by a player of their thoughts and feelings being influenced by those of their character and vice versa. In order to achieve that from a game design perspective, game designers build role-play scenarios, in which the distinction between player and character is deliberately blurred, or they emotionally manipulate their players so as not to be able to fully distance themselves from their characters.

As Waern notes "bleed" is a vague term that demands further refinement if one is to use it to describe the experience of love in a game context. She distinguishes between: "a *bleed-in* effect, when the player's emotions and personality traits affect the way the role is performed, and a *bleed-out* effect when the player cannot distance himself/herself from the (simulated) emotions of the character." As such, Waern situates the bleeding of romantic feelings in the interplay between players who are already willing to emotionally engage with a game and a game design that facilitates this engagement. She attributes this player willingness to the safety of romantic experience in games. She claims that this practice is similar to the idolization of male celebrities by female teenagers: "it offers a relatively safe form of romance in situations where you are not prepared or able to engage in a real one." She particularly contends that "*Dragon Age* allows us to fall in love safely and just a little."

Waern raises many essential issues pertaining to romantic love in games. Her bleeding exegesis, however, positions romance in digital games only as a pretense. In Waern's piece, the fictionality of the romance in games is a given, the romantic experience the games offer is never treated as being on equal terms with the real-life experience. It is seen as a safe substitute for people who are not ready or unable to feel the real thing. The romantic experience in games is portrayed as the result of a suspension of disbelief by the player in the context of role-playing. Based on Waern's account, the players are very eager to experience romance in games, but in order to do so they must be ready to consciously delude themselves that what they

experience is real when it is not. In this effect, the players do not fall in love in the context of games; they play the role of someone in love.

For the players to be able to feel love in a game, the game should include agents that can love. To understand the logical steps of this argument, one must connect Sartre's existential love with the embodied perception of other agents discussed in the previous section of this chapter. For that, a key term is Merleau-Ponty's "intercorporeality" (1962). Following on his theory that we have a body that inhabits a world, it is through this body that we experience our world and we make meaning of it, a process through which our consciousness is shaped. However, our subjectivity, namely our subjective perception, is not an entity in isolation that comes to know objects in the world. Instead, our subjectivity is constantly informed by our relation to the objects of our perception including other bodies of the world we inhabit: "I have the world as an incomplete individual, through the agency of my body as the potentiality of this world" (408).

Thus, each one of us is a person in virtuality constantly actualizing themselves by relating to the world and the agents in it; not by objective relation, but by intentional relation, meaning by doing and behaving intentionally, in simpler words through interaction. For Merleau-Ponty, this comparison and identification can only be achieved intentionally, as in actively, meaning through a movement of my body towards the other and theirs towards me. As long as we stay inactive our consciousness and thus the consciousness of others remains incomplete, a thing in potentia. It is in this context of intercorporeality that we experience love. As Diprose contends, Merleau-Ponty "does not think love or sexual desire is any different in structure to personal existence in general" (2002, 90).

We have a body and because we have a body we can have a world and in this world we can love. Yet, we can only love as a conscious experience when this love is realized in this system of intercorporeality we share with the other bodies of our world. This is a matter of reciprocity not in the sense of reciprocation but potentiality. We can know love by loving. This loving is an intentional loving towards another person. This person is another person because we recognize our own behavior in their behavior. If their behavior cannot actualize the potential of love then we cannot actualize our love and we cannot have a conscious experience of love in this world.

When Wearn suggests that in games we can fall in love in a safe way, the safety lies in our inability to experience love in its full actualization. We may experience something akin to love but because the agents in this

game world cannot offer love then our sentiment can reach up to a certain point, after which it remains virtual since the intercorporeality afforded by the embodied agents inside the game world does not allow for romantic love. This is why Leino calls love in games love in bad faith. According to Sartre when one practices bad faith, one "is hiding a displeasing truth or presenting as truth a pleasing untruth" (1956, 47). Its difference from the lie is that in bad faith "it is from myself that I am hiding the truth" (47). So when we play a video game we are practicing love in bad faith because we are hiding from ourselves the truth that we cannot actualize our experience of love since the agents that are available for our intercorporeality in this world cannot afford romantic love. We may perceive them as embodied agents but when it comes to their capacity to love, they are proven to be no more than passive objects. In this, what we feel for them may be better compared to the feelings of attachment we have for non-human entities or items we care for. When we say that we love our car the emphasis is given on the attachment we experience because we allocate time and resources to it. Equally, while playing the game we spend a lot of time and energy for or with the NPC. It is then understandable that we grow attached to it, which is a facet of love. Romantic love, however, demands reciprocity that the in-game agents cannot afford.

What Leino deems fictional love in games is when we are aware that we cannot experience romantic love in games and we accept it for the type of experience that it is; safe and just a little as Waern suggests. As Leino argues, this experience of love in bad faith is intrinsic to the medium of games. Leino sees medium-specific love as being in bad faith but, in actuality, it is also his fictional love that is medium-specific since it is not a different experience but rather a different conscious stance towards the same experience. Even when we accept that our love cannot be actualized because we target it toward a fictional character, it is not the same experience as that obtained from other media that include fictional characters in love.

The discrepancy lies in the point of perception of the player as part of the game world. They are not witnesses as in other media; they actively actualize the game world through their body, which makes them subjects of this world. As argued above, in digital games the player extends their physical space to the virtual space that affords their actions towards certain tasks and goals. In most games, this expansion is facilitated by a playable character (PC), through which the player experiences the game world. This PC can vary from an empty vessel as vague as a mouse cursor to a

fully fleshed-out character that the player has little or no ability to adapt to their own personality. In all cases, the embodiment that the PC allows the player enables a fusion of subjectivity, a subjective perspective onto the game world that continues dynamically throughout the play session.

Vella has coined the term "ludic subject," which "is not a pre-existing character that the player finds ready-made and simply steps into (though it can be, and often is, tied to a scripted diegetic character" (2014). Instead, the ludic subject is an amalgamation of the player's subjective stance in the game world infused with the features, abilities, and limitations of the PC: "As such, the ludic subject is composed of the set of player's subjective experiences of engaging with the game world from the standpoint of the ludic subject-position, and is only brought into being by the player's playing." In this phenomenological regard, it is impossible to talk about the PC and the player in clearly demarcated terms: "the player simultaneously inhabits a subjective standpoint internal to the game world (the ludic, or virtual, subjectivity) and her own subjective standpoint as an individual external to the game world."

Our experience of the game world is always part of our subjectivity. In romantic love, if the PC falls in love as part of the game exelixis then we perceive it subjectively as our falling in love. Or rather as our self, actualized in this game world through avatarial embodiment with the PC, falling in love. Yet as was argued before, this self of ours cannot experience romantic love in the game world because the intercorporeality afforded in this game world does not allow for such an experience. This experience is the same no matter if we acknowledge it or not, acting in bad faith that is. As such, the inability to experience romantic love becomes a facticity of the medium instead of a practice afforded or imposed by the game system.

This becomes apparent in the other type of love that games include, which is what Leino calls "vicarious love" (2015). In vicarious love the player is not part of the experience of love anymore, it is instead the PC and the NPC who are falling in love. In this type of love the player is no longer a subjective agent inside the game world but instead experiences the game world as a "fly on the wall." This is the type of love that games offer when they withdraw control from the player; when the player's actions do not affect the game world, most commonly in cutscenes, a point in which the player releases the mouse/keyboard/joystick and consumes the game world through their eyes and ears in a passive manner similar to watching a film. Indeed, during this time the game abandons the most distinguishing feature that discerns it from other media: the cybernetic loop between the player and the system.

For example, in the game *Nier: Automata* (2017) the love story between androids 2B and 9S mostly develops in cutscenes, when the game reclaims control from the player. Whether this story is romantic love or not is open to interpretation, which makes it an interesting case of how games can include thought-provoking and nuanced stories and characters. The challenge is to offer an uninterrupted experience of this to the player rather than constantly alternating between story progression and gameplay.[4] Since they are the non-ergodic parts of the game that contain the vicarious love, the gameplay is then found to not able to afford any authentic experience of romantic love.[5] Once the player regains control, their subjectivity meshes with the playable character and thus transforms a fictional experience to a cybernetic experience. As such, the experience of romantic love should become cybernetic itself if the game is to offer one. What exactly I mean by that is explained in the following section, in which I argue that for games to overcome the challenge of the intercorporeality discussed above, the game should include artificial agents rather than fictional ones.

AQ 10

AQ 11

ARTIFICIAL OTHERS

From the above, it can be deduced that the ability of games to offer subjective agency to their players works against their capacity to afford romantic love experiences. The player by embodying a virtual self in the game world cannot actualize this self's intention toward romantic love because the other agents inside this world do not provide bodies that allow it by constituting designed behaviors and not intentional beings. Undoubtedly intuitive game and narrative design that helps cover this lack of intentionality of NPCs is a valid way for games to overcome this challenge and provide an almost seamless illusion of romantic love; a feat that will become increasingly easier as technological means advance. At the same time, the fact that NPCs are coded behavior cannot be addressed by design alone. Instead, it is argued that games may eventually be liberated from the constraints of artificiality not by concealing it but rather by embracing it.

Brian et al. (2016) in explaining models of emotion for NPCs contend that the NPCs' behavior in games is usually scripted so as to avoid blocking

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[4] As aptly described by Chris Crawford (2003, 260): "The story itself is non-interactive, and the game itself lacks dramatic content. You interact with the non-narrative game, then see some non-interactive story, then interact some more with the game, then see more story, and if you alternate between the two fast enough, it becomes an 'interactive story'—right?".

[5] Ergodic in the sense of demanding extranoematic effort to be accessed, see Espen J. Aarseth (1997, 1).

the player's progress. This results to their acting "as emotionless robots that are only here to obey the rules of the game; they do not adapt their behavior to the current game situation, giving no sense of engagement in their interaction with the player" (139). As they argue, in most games the non-interactive parts of the game show NPCs with powerful emotional behaviors, yet during interactive phases, they lack autonomy. No matter how large the trees of possibilities the developers can code, this scripted approach, while being realistic for a specific context, cannot go very far in terms of adaptability and variability during the play session. They propose instead the application of generation models for autonomous virtual characters. These models can be data-driven or literature-based, both of which have their advantages and disadvantages: data models are costly and in need of large sets of data but are more adaptable and can evolve with new data, while models based on literature from the human and social sciences are less costly and more enriched, however, they do not provide the same level of adaptability and variability as the data models (146).

Essentially, what Brian et al. suggest are agents of artificial intelligence that are generated and evolve beyond the immediate control of the human, developer and/or player. In this way, digital games as cybernetic systems have the capacity to overcome the boundaries of fictionality. Specifically, digital games have been argued to work on a cybernetic feedback loop, which describes the circulatory communication between the game system and the player (Gazzard 2011; Bogost 2006; Sicart 2008; Stang 2019; Newman 2002). Friedman (1999) defines the concept as: "The constant interactivity in a simulation game—the perpetual feedback between a player' choice, the computer's almost instantaneous response, the player's response to that response, and so on—is a cybernetic loop" (137).

This is a medium-specific quality of digital games due to the fact that they are manifestations of a cybernetic system as coined and defined by Wiener (1948). Wiener revolutionizes the term "cybernetics," which originally meant having a goal and taking action to achieve that goal, in two important ways. First, he connects goals with communication between systems. In order for one to know whether they are reaching or have succeeded in their goal, they need information from their environment, which is what Wiener calls "feedback." Second, he argues that both animals (biological systems) and machines (non-biological or artificial systems) can operate according to cybernetic principles. This is an explicit recognition that both living and non-living systems can have a purpose.

In human-computer interaction, we then have the communication between two willful systems that exchange information toward a certain goal, which can either be shared or not. In this light, digital games can be seen as the medium or space of communication between those two systems—the human player and the artificial machine, in a constructed context, which includes a set of goals, some predefined, scripted, and embedded in the design, some others emergent in the course of this cybernetic loop of communication. The agents in this space can themselves be designed and/or emergent. Scripted agents, as previously argued, convey realism because they are based on human representation. At the same time, they cannot overcome their fictionality. Instead, emergent agents, agents of the willful machine, are artificial because they are generated by a simulation model, yet they can overcome the boundaries of representation by showing adaptability, variability, and evolution. In this capacity they become bodies actualized in the face of their tasks, fulfilling the condition of Merleau-Ponty's intentionality. They become intentional embodied agents.

The subsequent question is whether this artificial intentionality can include romantic love. According to Sartre's approach described before, love is the mode of being born out of our wanting a certain person. How can this be translated into a simulation model? Some research has been done outside of digital games in the field of robotics, which has taken on the special term "lovotics": love and sex with robots. Cheok et al. (2016) explain how the lovotics robot works: "The artificial intelligence of the Lovotics robot includes three modules: the Artificial Endocrine System, which is based on the physiology of love; the Probabilistic Love Assembly, which is based on the psychology of falling in love; and the Affective State Transition, which is based on human emotions" (308). The authors comment on how larger input by human users will lead to more realistic physical interactions with the robots since their models can be better configured. Digital games constitute an appropriate medium for data collection since they are more cost-efficient than building an actual robot, human players freely engage with them, and they provide a relatively contained and thus safe context for human-machine communication. AQ 12

Safety in this sense opens up a discussion that goes beyond the mere technological advances of the field. There are certain ethics arising from building an artificial other programmed to manipulate human feelings "in order to evoke loving or amorous reactions from their human users" (320). This can take a very pragmatic approach, as for example whether

loving and having sex with a robot can be held legally liable in marriage dissolution court cases as a form of cheating (321). Depending on the applicable law, this can cause legitimate tensions; for example under Sharia law adulterers found guilty may be subject to bodily or even capital punishment (321). A solution to this ethical problem is said to be "having robots designed in such a way as to incorporate feelings of heartbreak together with the goal of caring for those in its owner's circle of friends and relatives" (321). In other words, the goal is to build artificial others that go beyond inspiring feelings of love by simulating human responses to agents that can choose to experience love themselves.

CONCLUSION

This chapter discusses the experience of romantic love between a human player and a non-playable character (NPC) in single-player avatarial games. It expands on Leino's argument that digital games cannot offer an authentic romantic relationship due to the ontic difference between the player and the NPC. It is specifically argued that this ontic difference is to be understood in two aspects: the first one is the embodiment and the second is intentionality. The first aspect concerns the lack of physicality of NPCs. Romantic love is an experience associated with physicality and in the case of digital games the player is a physical being while the NPC is not. For this, it is argued that despite NPCs not being physical bodies, players perceive them as such. This argument is framed by drawing from embodied perception.

Research has shown that we perceive the space around our body, our peripersonal space, according to the actions we can perform in it, in other words, it is the space of our actions. In this sense, we perceive the space of the game as our peripersonal space as long as we can perform actions in it. In this, embodied perception coincides with phenomenology, as this is explained in the work of Merleau-Ponty. Merleau-Ponty contended that we perceive our world by our intentional actions within this world by our body. This phenomenal body can be extended and expanded through tools. Applying Merleau-Ponty to digital games, Klevjer has argued that through the controllers we expand our body to the screen of the digital game. When we play digital games, we are then expanded bodies that include the space of the digital game.

AQ 13   In this space, we encounter other agents, whose behavior and actions we perceive in the same way we do those of agents in our physical space. As with objects which we perceive according to which actions they afford

when we observe the actions of others the same motor-scheme is activated in our brain as if we were the ones performing this action. This enables us to attribute intentions, goals, and aspirations to others and foresee their behavior. This applies to emotional reactions as well. Further research has shown that this motor-schema is at work even when we encounter non-human or virtual/fictional agents. Especially when it comes to virtual agents, verisimilitude facilitates our perception of them as embodied agents together with their performing actions that match our own motor-schema and/or our own emotional reactions.

Specifically for romantic love, for a player to perceive an NPC as a body for love and/or in love, the NPC must look like a human as much as possible but also perform actions associated with romantic love. This leads to the second aspect of tension between a physical player and a virtual NPC, namely the NPC's inability to choose romantic love. This freedom of choice is described under Sartre's existentialism. Sartre argues that in love we are neither psychological determinism nor conscious choice alone. Instead, when we are in love we will ourselves into being in accordance and for the person we are in love with. In this sense, love is always intentional for a specific person, who has sparked this emotion in us. AQ 14

NPCs cannot choose to love the player in their uniqueness since they are coded behavior. Their actions are rather reactions to certain commands the player executes; any player for that matter. This inability of the NPCs to intentionally choose to love the player makes the experience of romantic love in digital games unattainable. The reason for this is explained by Merleau-Ponty's concept of intercorporeality. According to this understanding, our own conscious experience of the world is always a thing in potential. We are virtual beings, who are actualized by our intentional interaction with the objects in our world and the other agents in it. In the physical world we are able to feel love because the other agents around us can feel love; not in the sense of reciprocation but as potentiality. On the contrary, the agents in a digital game we interact with cannot feel love. As such, we as well cannot actualize our potential for love in its full force while acting in the game world.

For this reason, as long as digital games do not include agents that can choose love, games will not be able to offer an authentic romantic love experience to the human player. Understandably, clever game design can help cover this limitation but it is argued that this challenge cannot be surpassed by mere design alone. Instead, it is suggested that rather than games focusing on veiling the NPCs fictionality, a more fruitful direction

is to embrace their artificiality more broadly. This means that games should incorporate artificially generated agents that can adapt and evolve beyond the limited control of the human developers and players. The subsequent question is whether and how these artificial agents will eventually reach a point of consciously feeling romantic love towards a human player.

This is primarily a technological question but opens up discussions for legal and ethical matters as well. Still, the relation between a human agent and an artificial other remains an anthropological question as much as ever. Once upon a time, Frankenstein strove to create an artificial human being. In the end, he created a monster because his creation could not afford love. Digital games offer us the space to perceive, engage with, and potentially love otherness. In this, they also let us explore, understand, and eventually love humanness as well.

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