Journal of
Virtual Worlds Research

Real Virtual Relationships
August 2017   Volume 10 No. 2

Volume 10, Number 2
Real Virtual Relationships

August 2017

Empathy with Non-Player Characters?
An Empirical approach to the Foundations of Human/Non-Human Relationships

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Abstract

This study deals with the question in which extent non-player characters (NPCs), in the practice of playing video games, appear as social persons ready for relationships or if they are only treated as mere objects. Due to the fact that for human players the computer game and its virtual inhabitants appear as *black boxes*, the presented gameplay and its more or less emergent narratives are always in need of interpretation. As a result, different types of play-practice emerge, which in different ways produce more or less empathic relationships towards non-human players.

1.   Introduction

By switching on a video game the presented virtual worlds are inhabited by many different characters. There, we find the avatar which is the prominent representation of the human player sitting in front of the screen. But we, as well, find a tremendous amount of characters that are controlled by the computer. These so called non-player characters (NPCs) play an important role in video games. They may serve as the major antagonist or just as mere atmospheric ambience; they may function as gameplay mechanics, or could become trustworthy companions in the foreign environments. Today, almost every video game relies on NPCs (Aarseth, 2012; Warpefelt & Verhagen, 2016).[a] But what does it do to us as human players, when we interact with non-human entities in the virtual worlds of video games? What does it take to speak of a real virtual relationship between human and non-humans? Does it make a difference, when the virtual companions are made of code?

While the topic of virtual relationships between humans alone has become a relatively well-known phenomenon (e.g. Turkle, 2005; 2011; Blumer & Döring, 2012) we still find a desideratum for human/non-human types of relationship (cf. Rehm, 2008; Nass et al., 1999). For analyzing these types of relationships the questioning of NPCs as possible social actors is relevant in several respects. Not only is the non-human counterpart a complete virtual entity (NPCs can only be met in virtual spaces) but the human part has to immerse her- or himself in the virtual environment as well. In addition to that, we find the advantage that digital games are a special class of games. On the one hand they are computer-*games*, which obey specific rules and thus create their own "magic circle" (Huizinga, 1980; see also Juul, 2005). On the other hand, they are *computer*-games in which the computer, as some kind of agent, is involved in the game process presented by it[b]. In computer games a non-human part of agency is always present. From this perspective these relationships could not only be considered as a social link of reality and virtuality but as well as a foundation for the emergence of so far unknown relationships between human and non-human beings.

It is considered that for human social interaction the concept of empathy plays a major role as a motivational basis of prosocial and cooperative behavior (Singer & Lamm, 2009; Gallese, 2002).

[a] That's why it is still very surprising to not find an appropriate amount of research on that topic. Only a few studies are dealing explicitly with non-player characters in computer games. See for example Ravenet et al. (2016), Morrison & Ziemke (2005), or Tea & Lee (2004). See as well Pinchbeck (2009) and McDonalds (2012).

[b] It is important to emphasize that in this study the so called "Otome games" and similar games are explicitly not in focus. These games basically aim at simulating relationships between the human player and a (mostly female) non-player character. They are very popular in Japanese culture and have to be classified as some kind of expanded genre of Tamagotchi-games. Also, I would like to point out that I am not focusing on gameplay-driven romances, which are possible in many role-playing games such as Dragon Age: Origin (see for example Waern, 2011; McDonald, 2012). A romantic relationship, which is made possible by gameplay scripts, is different from a relationship that emerges from the interactions and attributions to an underlying structure of non-human companions.

Therefore, for analyzing real virtual relationships between human players and non-player characters the concept of empathy seems more than appropriate. Of course, the task of coming to a commonly shared understanding of empathy is a difficult one. Its discussion reaches back to the concept's very genesis around the end of the 19th century. This difficulty can certainly be attributed to the complexity of the phenomenon itself. Empathy develops in different modes and consists of various components. How ordinary the human ability to empathize appears to us becomes especially evident

when things go wrong. Misunderstandings, as well as hurting the feelings of others, illustrate how sensitive the pathway to empathy, even with other human beings, is.

But afar from identifying empathy as a key mechanism for sociality, from a sociological point of view it is far from clear what the fundamental requisites would be for classifying a (true) relationship between human and non-human beings. By common standards of sociology, social relationships are reserved for human beings alone. Of course, the question of social relationships between humans and non-humans is a much broader discussion (c.f. Latour, 2013; Turkle, 2011; Lindemann, 2005) and could not be discussed here in all its depth. Still, this study may contribute to this ongoing project by presenting some insights from a qualitative study on the topic of media practices with non-player characters. In this way, this study may produce some insights to the research on affective responses and other emotional states towards non-player characters in virtual worlds (c.f. Ferdig & Pytash, 2012; Ferdig & Mishra, 2004).

In order to investigate the foundations of possible relationships between NPCs and human players, this study proposes an empirical approach. Accordingly, this paper is structured as follows: In a first step (1) related works on non-player characters and the concept of the illusion of non-mediation are presented in a theoretical manner. Afterwards, (2) the concept of empathy as a mechanism for sociality is introduced. With Thomas Fuchs' (2014) considerations on "empathy in the age of virtuality" it becomes evident that relationships between humans and virtual entities should not be considered less real than any other social situation given in material reality. Subsequently, (3) the role of artificial entities is briefly examined from the perspective of sociological theory. After referring to the theoretical discussion of non-humans in the field of sociology, the methodic framework of this study is illustrated (4). This is needed to argue the study's decision for a qualitative approach on the topic. As is to be shown, the documentary method used in this study is well suited for the raised question. Following these methodological remarks, the empirical findings are presented (5). Here, some selected sequences from the empirical data and corresponding interpretations are illustrated. Finally (6), these findings are related to the theoretical discussion on real virtual relationships between humans and non-humans.

2.   The Concept of Non-Mediation and Non-Player Characters

The debate about the potential of modern computers to mimic humans for the purpose of true communication aspects officially began in 1950. with Alan Turing's "Turing Test" and still continues today. The core concept for perceiving non-human beings such as conversational agents (Weizenbaum, 1966; Boukricha & Wachsmuth, 2011) or artificial assistants like Alexa (Green, 2017) as some kind of social actors has been very early identified as a result of the "perceptual illusion of non-mediation" (Lombard & Ditton, 1997). According to Lombard and Ditton, it is particularly the "willingness to suspend disbelief" that may lead to the feeling of being socially present with an actor in a medium or even to the feeling of presence with a (technical) medium as a social actor. Both types of presence cause "that viewers perceive and in some cases respond to people on television as social entities, in what has been termed para-social interactions and para-social relationships. Other, less empirical evidence, suggests that the same phenomenon extends to our responses to computer characters and agents" (Lombard & Ditton, 1997).[1] In their study, Lombard and Ditton have argued that to perceive a virtual agent as a (true) social entity it is necessary to establish a certain degree of interactivity with plausible responses. Similarly, Biocca (1997) states that this kind of "social presence" can only begin to occur when people get the feeling that they have access to the "intelligence" of the other (see the next chapter on empathy).

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[1] The phenomenon of para-social interactions is well known since the findings of Reeves and Nass (1996) that people respond to media as social actors if given limited cues.

For example, in a study on responses of people to virtual humans in an immersive environment, many of the participants expressed their surprise that "they had respected some social norms despite the fact that they knew the agents were computer-generated" (Garau et al., 2005, p. 114). As interesting as this finding seems, none of the participant's responses show that the virtual humans were perceived as "real people". Even though this supports the previously mentioned findings on para-social interaction, there seems to be a limitation on the "willingness to suspend disbelief". Slater (2009) understands this limitation as a result of the differentiation of "place illusion" and "plausibility illusion". While the feeling of 'being there' (i.e. the concept of spatial presence) in a virtual environment may occur relatively easy (Heeter, 1992; Lee, 2004), it does not determine how virtual agents in that environment are perceived. The perception of virtual humans as symmetrical social agents correlates more with the plausibility of their behavior and responses in the virtual environment than with the (graphical presentation) of that environment.

But how does this tie to the topic of empathy with non-player characters[2]? While previous research into virtual characters in computer games has largely focused on the narrative aspects of NPCs for an increase in believability (Lankoski & Björk, 2007; Afonso & Prada, 2008), or their appearance in terms of believability (Lee & Heeter, 2012), there is a lack of studies that focus on the player's perspective and their interpretations towards non-player characters. Involuntarily, human players build up expectations towards the virtual characters which then would have to be consistently fulfilled (or not).

In many digital games, this consistency relies significantly on the behavior of NPCs. But due to game industries' limitations on resources and time schedules, NPCs are limited as well. The game designers cannot predict the directions taken by the human players. This is why the NPC's believability becomes extremely difficult to foresee and ensure. So the well-known complexity of social situations in ordinary life is limited in the context of interacting with NPCs in digital games. But NPCs need to act in ways that are perceived as *believable* by players: They need to be in "coherence with the player's expectations" (Warpefelt & Verhagen, 2017, p. 42). In their recent studies Warpefelt and Verhagen (2016; 2017) have identified that NPCs need to achieve something called "characterhood" for being believable characters. In the best case, NPCs have to be actively involved in portraying their roles to meet the aforementioned coherence with the player's expectations.

> *"Achieving characterhood is also what separates NPCs from the 'dead' things in the game world. For example, a vendor NPC is often functionally not much different from a vending machine in that it can provide the player with goods in exchange for some kind of currency, but the 'theatrics' associated with the transactions, such as speech or visual presentation, makes the game experience different. Although the difference is small in purely technical terms (playing sounds and animations) it does provide something for the player to use when they anthropomorphize an NPC as a character." (Warpefelt & Verhagen, 2017, p. 41).*

So what does it mean that an NPC is believable? In an abstract sense, there are two ways of achieving characterhood of NPCs in digital games: the embedded and the emergent narrative (cf. Jenkins, 2004). The embedded narrative follows a pre-defined storyline which uses NPCs, as gameplay mechanics, to push the human player in the 'right' direction. NPCs that are embedded into a narrative will only 'behave' according to their pre-defined roles of the story. Non-player characters that are embedded in the narrative are therefore limited in their spectrum of contingencies. The emergent narrative, on the other hand, establishes itself from the intertwined feedback between the actions of the human player and the actions of the virtual characters. In emergent narratives the pre-defined role of NPCs is only pointing in some rough trajectories. The story that unfolds in the

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[2] See Warpefelt and Verhagen (2016) for a typology of NPCs.

practice of playing is "essentially the story of how the player has played the game. It emerges as the player plays the game and encapsulates the game experience of a particular player" (Warpefelt & Verhagen, 2017, p. 41). It should be clear now, that in this study the emergent narratives are of special interest. Emergent play practices in particular, which are not only coherent with the player's expectations but show a certain degree of plausibility and "consistency" (Ochs et al., 2009) in itself, may lead to the phenomenon, that human players may "illogically overlook the mediated or even artificial nature of an entity within a medium and attempt to interact with it" (Lombard & Ditton, 1997).

How are these (pre-defined) behaviors of NPCs integrated into digital games? Baakes defines artificial intelligence in computer games as "the decision-making algorithms of game characters that determine the character's behavior" (Baakes, 2010, p. 3). This definition is particularly important for sociological research because it clarifies that the artificial intelligence of computer opponents (whether figured or not) manifests as an observable behavior in the game process. But the increasingly growing details and richness of the game worlds, the vivid graphics and life-like animations of game characters are often counteracted by blunt, repetitive or foreseeable behavior of the computer opponents. This makes it clear that the increasingly credible and realistic portrayal of the game worlds demands even more for a credible and realistic behavior of the computer-controlled players: "Where the development focus used to be on the graphical possibilities of the games, that is, the naturalness of the image rendering, the near movie realism of the graphics now increasingly contrasts with the rather primitive and unnatural behavior of the characters" (Dignum et al., 2009). For example, a NPC with the role of a vendor may at the first glance seem to be a mere means of play which has to be used to achieve the game goal: "This is mainly because the players only meet programmed avatars: artificial entities with extremely reductive character traits" (Mersch, 2008, p. 29).

However, this is a perspective of externality which does not take into account the aforementioned peculiarity of games in general (c.f. Caillois, 2001; Huizinga, 1980). That is, each player must take the game seriously in its presented game reality (i.e. the "willing suspension of disbelief"). Therefore, the non-player vendor points to two perspectives at the same time: from an external perspective it may appear as a mere "token" for gameplay, but from a perspective immersed within the reality of the game, the vendor may appear as a legitimate "fellow player". For the human players, the actions and reactions in the virtual worlds of computer games are generally defined as their own actions. This self-attribution of action is usually powered by the diegesis of the respective game. In the virtual world, the avatar and therefore the human player, is addressed as an acting person. However, the question remains whether this is the case with NPCs and if such a status is attributed by the game and/or the human players as well.

3.   Empathy with Virtual Characters

In general, the concept of empathy has no universal definition. But its many definitions can be differentiated into three major categories: "(a) empathy as an affective response to the other's emotions, (b) empathy as the cognitive understanding of the other's emotions, and (c) empathy as the combination of the above two definitions" (Boukricha & Wachsmuth, 2011, p. 196). This study is referring to the concept of empathy as it is understood mainly in (neuro)constructivist thinking which resembles to the concept of virtuality and presence, as mentioned above:

> *"Thus, everything we perceive, everything we know, including what we know about ourselves, is in fact a part of a 'virtual reality' generated by the brain. In this 'ego tunnel', however, the only road to other persons is also a virtual one, namely, one via internal simulation." (Fuchs, 2014, p. 154f.)*

From this theoretical framework every individual's understanding of the social can be regarded as a projection onto others in terms of an inner representation or model of the other. Albeit understood as a primary for the social, "one could say that the person who perceives the other is not actually interacting with him, but rather with his own internal models or simulations of the other's actions" (Fuchs, 2014, p. 155). For analyzing the possible emergence of empathy with NPCs this study is following Fuchs' differentiation of primary, extended, and fictional empathy; especially because it proves to be suitable to the qualitative research design used.

According to Fuchs, primary empathy arises from direct, bodily contact with other persons. It is the resonance of the body that mirrors the emotional feelings of the direct counterpart (see Buccino et al., 2004; Rizzolatti & Sinigaglia, 2008 for corresponding mirror neurons in the brain.) That is why "the rage of the other releases in us sensations that resound throughout our body in the form of tension, cringing, and the impulse to retreat from the encounter, all of which then imbue our perception of the other's rage" (Fuchs, 2014, p. 157). In addition to that, the so called "extended empathy" indicates to a more abstract, or mental representation (simulation) of the perspective of the other: It is the ability to put oneself in the shoes of another being. But extended empathy implies more than fantasy alone. Extended empathy is about why the other may feel this rage. In fact, as Fuchs states, "I imagine then how *I* would feel and react if in the same situation" (Fuchs, 2014, p.158). This component of empathy is different from the first type because it employs a conscious envisioning of the situation of the other. Because there is no direct channel to the feelings of the other "it involves an *imaginative operation*, that means, a transposition into an 'as-if' scenario" (Fuchs, 2014, p. 157). In regard of Fuchs' third type of empathy, "fictional empathy", both primary and extended empathy converge. The virtual encounter of another being in cyberspace resembles the primary mode of empathy, even though the other may be a fictional character. The direct encounter of a fictional character does not exclude the possibility of imaginatively trans-positioning oneself into this entity's perspective. Fictional empathy "entails a component of virtuality or an *as-if-*consciousness: when I put myself into the shoes of the other, I do not actually become the other, and I remain aware of this" (Fuchs, 2014, p. 161).

Of course, in this study, mainly the third type of empathy is of special interest because in fictional empathy one suspends her/his understanding of the fictionality. Similar to the concept of the "willing suspension of disbelief", in fictional empathy we give ourselves over to the illusion, while still having a split awareness of it. Even though a certain character is fictional (e.g. Donald Duck), empathy remains possible: "for in giving ourselves over to the illusion we let our as-if-consciousness retreat so far into the background that the fictional mode of our empathy may even become more intense than primary or extended empathy" (Fuchs, 2014, p. 162).

The concepts of "willing suspension of disbelief" (Coleridge, 2014) and "plausibility illusion" (Slater, 2009), as well as the concept of "fictional empathy" (Fuchs, 2014) and the "medium as an actor" (Lombard & Ditton, 1997), all refer to an alteration of the situational framing. Even though a player knows about the fictionality/virtuality of the NPC he/she may behave as-if it would be real. This so-called *paradox of fiction* is not based on any irrationality or any kind of pathologic insanity, but it is based on the fact of a fictional consciousness that is able to oscillate within the split awareness of both frames (perceptions and conceptions), at the same time.

4.   Who or What Qualifies for Sociality?

The question of real virtual relationships (with NPCs) even leads to a much broader discussion going on in sociology, about who and what qualifies, in general, for social relationships. That is because the rise of artificial non-human entities - such as NPCs – could give us first indications for possible "post-social relationships" as Knorr-Cetina (1997) anticipates it. Whereas computers traditionally have been defined as mere mediums or machines, the case of video games and its virtual

worlds can be used to inquire how computers could be understood as active players in the sense of agency (Latour, 2005). Above all, the philosophically complex term artificial intelligence (AI) is generally associated with non-player characters (see Narayek, 2004; Dignum et al., 2009). This term encompasses both the attribution of personhood to an artificial player, as well as attempts to translate the behavior of virtual entities into a sociological frame that, until now, has been reserved for human beings only.

The starting point for considerations on the status of relationships with computer-players is the observation that in the process of playing, the human players are confronted with a problem that in the field of sociology is called "double contingency" (Luhmann, 1995). In interactive situations actors are intransparent for each other and therefore have to develop expectations of the expectations of the other. In particular, Lindemann shows that the existence of a situation of double contingency can be regarded as a minimum condition for social situations to which the multiparadigmatic sociology can agree on (Lindemann, 2009). While in the interaction between humans alone, the presence of a subjective status is usually taken granted without questioning, the matter seems very different in dealing with non-human entities such as robots, algorithms, or NPCs. Accordingly, the human players of this study refer to an intransparent 'depth' of their virtual counterparts. This is due to the fact that computer-controlled players like NPCs are not only intransparent by means of their proprietary code-structure, but by their unpredictable 'behavior' in the situations of play - a behavior that can only be reconstructed in a comprehensible manner by human players (see for a similar approach Nass et al., 1999; and Rehm, 2008).

Therefore, any empirical research dealing with the foundations of relationships between human and non-human entities must remain open for any irritation: "It should not be decided a priori which entities are social actors" (Lindemann, 2009, p. 79).[3] Starting out from the commonality in the sociological tradition, namely, the foundation of sociality and personality from situations of double contingency, Lindemann takes a look at the social stabilization of such relationships, which is usually seen as a "societal border regime" (Lindemann, 2009, p. 79). This means that it is not ego, or alter ego alone, who determines whether a situation can be viewed as a social situation, but it needs a third person who 'confirms' that they are in such a situation. Now, it becomes clear that both subjectivations and objectifications of individual entities can only be understood as practical productions within social situations. Such a conception of sociality does also require some form of embodiment of social structures in the form of a habitus.[4] So, it is important to note that the individual modes of dealing with non-human entities have to be considered as part of one's habitus. Therefore, human players can always be expected to match their play-style with their habits. In addition, the practical emergence of such relationships must also be seen as coupled with the question to whether and how the concept of "personhood" (Lindemann, 2005) emerges in the interaction. According to Luhmann (2012), persons condense as a side effect of the need to solve the problem of double contingency of social situations. Therefore, the emergence of personhood - with regard to the distinction between person/unperson - should be considered as epiphenomenon of every game practice.

5. Method

For the empirical reconstruction of orientations towards NPCs while playing games, it has to be assumed that playing a video game cannot be reduced to a receptive process alone, nor is it a predetermined use of the medium. Playing video games must be understood as a practical action. In

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[3] All quotations from works for which only the German reference has been given in the list of references have been translated into English by the author.

[4] Bourdieu's theory of habitus proposes a homologous approach to the incorporation of the social as Lindemann (2009) or Latour (2013). See for example Bourdieu & Wacquant (1992).

this way, playing digital games can be understood as media practices, which are always framed in a habitual manner and therefore can be examined by means of qualitative social research.

To deal with the issue of real virtual relationships between human and non-human players, this study refers to data from a qualitative study that has been carried out previously (Harth, 2014). One result of the study was that the different types of encounter with non-human entities lie on a continuum that runs between mechanical "triviality" (von Foerster, 2014) and social "personhood" (Lindemann, 2005). In concrete terms, four typical patterns of orientation towards non-human players have been identified:

- The type of *primordial expectation of triviality* is shown by all the players interviewed, and corresponds to the knowledge that by playing a computer game, one has to deal with mathematical operations. It is primordial because the expectation that the game processes are limited by code remains, reflexively, available at any time.

- The type of *rigorous attestation of triviality* increases this expectation in a way that every phenomena appearing on the screen (including the NPCs) are attributed to an objective code that has to be deciphered during the course of playing.

- The type of *hybridization of players* brings together practices in which both human and non-human players are framed as a two-as-one: human players fuse via immersion into a hybrid of real and data subjects, and non-human players become quasi-subjects by attributing some kind of "agency" in the sense of Latour (2013).

- The type of *temporary attestation of personhood* finally is manifested in situations where human players attribute a status of "personhood" to non-human players.

While the practices of playing according to type a) - c) assign NPCs predominantly to the sphere of mere objects, the practice of 'temporary attestations of personhood' is of special interest for the question discussed here. As it is to be shown, in this case human players attribute non-player characters some kind of personhood that no longer distinguishes between human and non-human entities: In terms of pity, empathy or other morally oriented behavior, the non-human players appear to be acknowledged as some kind of person in a sociological sense, which until now was reserved for human beings only.

5.1. Participants

The sample of this study consists of 10 very experienced computer players recruited from different student communities. They are between 23 and 36 years of age, with 6 males and 4 females. All participants had spent more than half their lives with playing video games. The survey was carried out in 2010 and the interviews are 71 minutes in average. All interviews were conducted in German and carefully translated to English. Of course, all personal data were alienated for reasons of anonymization so that no conclusions can be made about the interviewees.

5.2. Analysis

The qualitative approach allows a detailed understanding of the subject's perceptions and experiences of playing video games. In comparison with statistical data, qualitative findings will not only show if, but most importantly how the interactions with NPCs are perceived by the players. Methodologically speaking, qualitative research implies the conviction that what is (a) communicated verbally is not the only element of significance to the empirical analysis, but that it is above all necessary to (b) reconstruct the implicit meaning that underlies with these utterances.

The method used in this study is called Documentary Method (Bohnsack et al., 2010) and distinguishes between these two levels of meaning by referring to the first (a) as that of the "intentional expressive meaning" and to the second (b) as "documentary meaning" (Nohl, 2010, p. 201). The intentional expressive meaning (a) designates what "was meant by the subject just as it appeared to him when his consciousness was focused upon it" (Mannheim, 1952, p. 46). The documentary meaning (b) on the other hand, does not refer to the intentions of the actors but to the "objective social configuration" (Mannheim, 1952, p. 46) that exists beyond the intentions and specific characteristics of the actors (i.e. the modus operandi). Accordingly, the interpretation of interviews follows the distinction between a "formulating interpretation" on the one hand, which summarizes topics, and a "reflecting interpretation" of the framework of orientation on the other hand, in which topics are elaborated on. The strategy for minimizing biases of the interpreters lies within its comparative approach which differentiates the individual cases against each other, and not by comparing them with some theoretical frameworks of the authors. These differentiations then provide information on individual's structures of habitual orientations and their specific "logic of practice" (Bourdieu, 1990) which, in this case, leads to a typology of media practices with NPCs.

With the aforementioned theoretical frameworks, the research design finds a meta-theoretical coherence which is appropriate for answering the question for possible foundations of relationships between human players and non-human players. Therefore, the following chapters focus on the question how the emergence of empathy may transform a narrative "characterhood" (Warpefelt & Verhagen, 2017) of NPCs into some degree of social "personhood" (Lindemann, 2005).

6.   Findings

In the following chapters the empirical findings will be presented. At first, a) some sequences from an interview will be shown that reject even the concept of "characterhood" of NPCs. Afterwards, some passages will be presented that b) illustrate a generalized attribution of agency, and c) temporary forms of expectations-expectations of NPCs. Finally, d) empirical data will be presented that show in terms of a discourse analysis how difficult it is to assign "personhood" of NPCs in a social dyad alone.

6.1. NPCs and Games as Trivial Machines

In the sense of a methodically controlled contrast, the empirical findings that reject empathy with NPCs are presented in a first step. These practices of playing and their corresponding orientations are manifested in a way that is called "rigorous attestation of triviality". These logics of practice are particularly interesting because they illustrate that it does not necessarily have to come to empathic relations with non-human player characters.

In the practice of playing video games there is a basic implicit knowledge, which is always available as a framing for all interview partners. It is the knowledge about the double meaning of what is going on in the situation (i.e. the split-awareness of the paradox of fiction). The human player's practice of playing is always framed by the knowledge of the computer-controlled players as subject to certain limitations and may become visible in the course of playing. With the help of repetitions and probing, attempts are made to find out the limits imposed on the computer-controlled counterpart. All interviewees conceive the computer as a machine structured by program codes. In the sense of "trivial and non-trivial machines" (von Foerster, 2014), this practical knowledge can be defined as an expectation of triviality, which is implemented in the process of playing. If established, the computer-controlled NPCs then are described as a result of determinate machines, which can only temporarily produce a form of contingency simulation. For example, if the repetition of a turn leads to the same output, the former illusion of contingency is transformed into determinism.

Two of the 10 interviewees show an orientation that can be defined as a rigorous attestation of triviality. Here, the practice of playing manifests itself by strictly maintaining an expectation of trivial game behavior. This orientation frames the perception of all events, interactions, and feedback in the game process in a rigorous interpretation of Mark Wolf's quotation: "In order to be able to master games successfully, one must anticipate the 'thoughts' of the program (or its algorithms) and strictly follow them" (Wolf, 2001, p. 14f.).

Compared to other interviewees, it is striking that in the case of Martin almost any of his differentiations and elaborations is aiming at the level of game mechanics. This becomes especially clear in his explanation of his experiences of "frustration" in computer games:

Interviewer: But have you, you said frustration, have you ever reacted annoyed to a game or another player?

Martin: Absolutely, absolutely. That always annoys me. So I'd say it is a very fine balance, yes, because it's; for example, just before we met I played a little bit of Heroes, yes, and then of course, you get yourself a small castle and you only have a short line of sight, yes that is with many games, and then you do not know, um, what the other is doing. And then you play a while and then you go outside and then there comes, either suddenly comes, a super powerful opponent into sight, and then you know, you have lost, or it's like: you come out and see him and it's like this: Oh no, come on. Uh, you know he is actually already inferior to you. That is actually a common problem with all these games. They are decided relatively quickly. And that's why I find this always a bit boring. It's more interesting, of course, if it's a bit longer. But this is not really possible with the games.

The immanent question as to whether Martin had reacted to frustrations as well as emotions such as annoyance towards computer-controlled players, he initially affirms: "Absolutely, absolutely. That always annoys me." He then describes an exemplary situation of frustration: In the game *Heroes of Might and Magic,* you have only a limited line of sight which hides the enemy player's actions in the dark. Only after a certain period of time the players meet, whereby it is usually immediately apparent to him which of the two players has won the game. The game would decide when the player who is defeated in this situation has no more chances in the further course of the game.

In this interview passage it is interesting that Martin confirms the experience of annoyance towards computer-controlled players but refers directly to the game mechanics. It seems as if Martin does not distinguish between computer-controlled players and the game itself. The enemy player is representing the game itself, which consists only of code. In contrast to distinguishing between the game and the players, Martin is not only annoyed by the deficient strategies of the computer-controlled player, but he is annoyed about the code-structured gameplay. Martin's annoyance is not about "actions" or a "behavior" of the opponent, but an annoyance at the lack of implemented dynamics in the program code. This orientation with regard to a pronounced and strict expectation of triviality in the form of code is found in various passages in the interview with Martin.

Martin's occasional surprises during the game or the experience of defeats are also put into the context of a mechanism that can be looked through. In this way, Martin processes his experiences of frustration through defeats: in the long run, so to speak, he would always be superior to the game, since he could find the mechanisms of each game by repetitions. The concluding "He just has to play something" in the following passage indicates that Martin is expecting a fixed and pre-defined program structure which in the end can always be deciphered:

Interviewer: How would you describe how you deal with such surprises, so to speak? When he suddenly is there with his troops for example and you haven't thought so?

Martin: I would always say, so on the, so it's usually, it's kind of a bit frustrating I'd say, yes. You are playing for example, you do something and suddenly he comes and breaks everything apart. Then I would say at the first moment: uh frustration. Then I would say uh, second phase is then after the frustration: you want to make it better of course. And then you start playing again, mm, could be it goes wrong again, then of course the frustration grows on the one hand, but the challenge grows on the other, right? But at some point, because it is a computer game, a programmed AI, I'd say, it is like: of course, in the end the mechanism is always easy to find out, right? (.) He just has to play something.

Whenever Player A performs Action B, the program reacts with action C. On the basis of such causality, Martin develops expectations that give him the certainty of playing the game 'in the right way'. Moreover, through his continuous repetition of individual game sequences his expectations produce viable patterns of the game, which lead to an ever-finer image of the 'underlying' mechanisms. Martin's goal is to reconstruct the program structure in its specific if-then-loops. If he can do this, he is able to beat the game. Such a practice can indeed be harsh (his experiences of frustration), but at the same time challenges him and contributes in a certain degree to his entertainment.

Even though Martin does mention some para-social attributions (e.g., "*He* just has to play something"), this framing plays only a minor role to him. His focus is on the game mechanics which must be deciphered. To Martin, the playing of computer games thus becomes a reconstruction of the code structure on the background of a rigorous expectation of triviality. No identity, no role, no individuality is attributed to the computer program's characters. It is mere program code, which is limited in its complexity and variation.

The type of rigorous attestation of triviality thus serves as a consistent interpretation of the indeterminateness of NPCs (understood as black-boxes) resulting from the "difference between surface and depth" (Luhmann, 2012) of computer programs. Here, all events and actions appearing on the surface of the screen are framed as determined by the depth of software and hardware. In doing so, an insurmountable mode of trivial operations is attributed to this depth, which could be reconstructed in its sequences by repetition and exploration. Any form of behavior or action of NPCs is rejected by the latent observation of anticipated algorithms. To Martin, there is no playmate but mere mathematical numbers.

6.2. The Attribution of Agency

This chapter is intended as a transition to the actual part of the study, which will explicitly deal with practices of playing that reflect on NPCs in terms of (quasi-)persons. Here, in the perception of the players, the computer-controlled opponent or even individual NPCs seem to be for the first time more than mere trivial machines. On the contrary, they are framed as a medium as well as a fellow player. Such an orientation with regard to "fellow players" as agents is documented in the interview with Louis, who reports on his experiences with playing *against* the computer:

Interviewer: Uh, would you say then that you uh communicate with the computer within the computer game? Or: are you communicating with the computer game?

Louis: Pfff. (laughing) Yes, but then the question is when you communicate, what is it, what is the content of this communication, that is the question? (Pause) But sometimes there is something like that. (Pause) I sometimes have the feeling, as if I, for example when an RPG puts more and more opponents in front of me and so on and some of them are more difficult and some are easier and so on, then it's a bit like when playing a card game. When playing with others and then someone does things that get him a lot of points and things that give him little points and I do

things that get me a lot of points or things that give me little points. So there really is sometimes, sometimes I really feel like playing against the computer. I do not take him as a person, but a little bit, you know? So that I am, yes that is also the reason why I am annoyed if I do not get something done because then I feel like the computer plays with unfair methods. Because he is playing against me and then he has a loaded dice in his pocket or something like that. Yes, so I do have the feeling to play against the computer.

Interviewer: Uh, so not when you're playing a card game on the computer? But in a role playing game?

Louis: Yes, yes exactly, in a role playing game when I don't achieve anything, then I have the feeling that the opponent has defeated me and then if I don't achieve it once again, then I have the feeling, the computer has defeated me with unfair methods. And then I feel like he's cheating me. (laughing) At least at first. Not afterwards, of course, because I realize that it is only a computer, but at first: yes.

The discourse presented here is framed by the proposition of the interviewer that a player may communicate with computer games or computers in general. At the very beginning of Louis' reaction, the difficulty of assigning attributes to computers or non-human beings that are not 'allowed' from a perspective of common sense. Accordingly, Louis reacts with a non-verbal utterance ("Pfff") and a short laughter. The laughter could either be interpreted as an index for this break with common sense, or as a self-referential 'laughter over him', since Louis cannot find a direct answer to the interviewer's question. Immediately after the laughter, he responds with a theorizing rhetorical question of a needed "content" for a possible communication between the human player and the computer (game).

Following this distancing which is not further developed, he concludes with an exemplary comparison. In this process, Louis notes the analogy between a digital role-playing game, which in some cases presents him difficult and sometimes easy to defeat "opponents in front of him" and a card game, in which the individual fellow players would perform turns to gain more or less points. The analogy consists in the fact that the (implicit: human) fellow players would act the same in the card game as in the computer role-playing game. Both would appear as an antagonist or competitor in the game context: "Yes, so I do have the feeling to play against the computer." This expression indicates an I-You relationship that would not be 'allowed' from an understanding of the expectation of triviality, since it 'should' be an I-It relationship. The interaction with the machine in the sense of a causal relation seems to be turning into an interactive relationship in the sense of "double contingency" (Luhmann, 1995). This ambiguity is also documented in Louis's statement that he would not perceive the computer as a "person", but still "a little bit". Here, it seems as if Louis is constructing a quasi-personalization, which is present only in the first place, that is: in a concrete play-scenario that demands for quick actions and reactions. Retrospectively, he renounces this quasi-personalization by updating the expectation of triviality and by re-framing the computer opponent as a mechanism ("it is only a computer").

While in the mode of trivial expectations the computer is framed as a medium/machine alone, here, a third momentum arises that frames it as some kind of "playmate" in the "magic circle" (Huizinga, 1980) of playing. In the case of Louis, this becomes quite explicit when he calls "the computer" an opponent. Moreover, Louis is expecting an 'agenda' of the computer, which follows its own goals in the course of the game and even shows deception maneuvers or indications of 'wrong play'. Here, the computer is hypostatized in a sense that it is constructed as a fellow player. This is all the more striking, since the intentionality attributed by Louis is not documented in the context of the play. The role-playing game does not try to suggest or simulate any kind of intentionality! All of

this, however, appears only in the light of a first order observation which, in the sense of a (willing) suspension of disbelief, is able to cover the primordial triviality expectation for a short time.

6.3. Expecting Expectations of NPCs?

The general possibility of attributions of personhood must always be thought of in contrast of certain frameworks. Personhood does not exist independently, but only as a "side effect of social situations" (Luhmann, 1995, p. 149). Only the communicative translation of double contingency makes it possible to conceive the concept of personhood as a "distinction" that "guides the observation as a form with two sides" (Luhmann, 1995, p. 148). To illustrate how that kind of observation is used with focus on non-player characters, two sequences from the interview with James are presented.

Interviewer: Uhm, and suppose you have been for two hours uhm completely immersed in such a RPG, would you say you then see these characters differently, do you take them more serious for example?

James: Yes, I think I would have a stronger feeling of empathy towards them, uhm, I believe if someone would put me in front of a game that I don't know and would tell me: okay, now you have the option of sacrificing one of your three companions then it would not itch at all, but if I already spent hours with them then it would, uhm, because one gets to know each other just like a character in a book or a film. Yes.

In this sequence the metaphors of "empathy", "get to know", and "spent hours with them" all seem important. The semantic meanings indicate some kind of relation which emerges over a certain period of time. If James has spent time with his virtual companions, he will get to know them better. Therefore, the fictitious sacrifice would seem less probable since you don't sacrifice a good friend (even for a good reason) that easily. In addition, it seems important that James signifies "empathy" rather than sympathy, because empathy emphasizes an active process of the comprehension of another ego (cf. Fuchs, 2014; Rizzolatti & Sinigaglia, 2008).

Even though James addresses the artificiality of his "companions" by putting them on a level with literary or cinematic characters, a further distinction can be drawn in here that becomes even clearer in the subsequent sequence. Of course, non-player characters in a video game are presented in a similar way as cinematic characters, but the concrete practice of dealing with them is carried out in the form of interactivity ascribed to the medium (c.f. Wolf, 2001). What James describes as "spent hours with them" shows both a temporal and an interactive dimension, which is due to the medium of the video game and is probably the biggest difference to literature and film. This is significant, because only through interaction contingency can be introduced into the 'relationship'. Only then can it be questioned whether there are formations of expectation-expectations in the sense of double contingency.

It should also be noted that to James the dimension of time seems to correspond with some kind of (quasi-) dimension of the social. The multi-hour and interactive stay in the virtual world of video games strengthens his "empathy" with his virtual companions. In the form of empathy, James seems to align himself to the anticipated experience of the other (here: the NPCs). Even though he is not becoming the other, James is virtually putting himself in the shoes of the NPC.

From a praxeological perspective, one would speak of a conjunctive space of experience between James and his computer-controlled companions. They all had to go through critical (dangerous) situations. Accordingly, James is bound to an analysis of the anticipated worries, wishes, or needs of his virtual companions, which can be interpreted as a process of active "understanding of the other" (Luhmann, 1986). Only an understanding of the other may lead to the potential scruples or

even the rejection of the option of sacrificing virtual companions. Or, as formulated from a phenomenological perspective: "Rather, in empathy, we experience the other directly as a person, as an intentional being whose bodiIy gestures and actions are expressive of his or her experiences or states of mind" (Gallagher & Zahavi, 2010, p. 183).

The empirical data shows that especially the high density of interaction with virtual companions in digital RPGs can lead to temporary symmetrizations between artificial persons and real persons. In addition, it becomes clear that "empathy" or "compassion" with NPCs has to be understood as an orientation of the anticipated experience of the other. The fact that a human player is, at all, oriented at an (alleged) experience of the NPC seems not only to be an observation of double contingency, but also the acknowledgment of a (temporal) status of personhood. This becomes especially evident in the following passage:

> *Interviewer: I would like to ask you again about it because the characters, uhm, for example in Dragon Age yes there are so many, umh, or in role playing games in general there are so many non-player characters? So how would you describe them, how do you treat them?*
>
> *James: Hm, how do I treat them in the game, uhm that's a very general question.*
>
> *Interviewer: Okay or how do you get along with those characters, say, if a stupid one comes or someone is very nice to you?*
>
> *James: Yes, that's a thing, so I uhm, I once played a game called Knights of the old Republic and there is the possibility to be a really bad guy and because of that I thought that, at first glance it seemed quite cool and I wanted to try it out. But then I had to realize that the role of the villain is not my thing and that I needed to become really evil, uhm you could see right at your character, you can see how evil he is right now. And to be really evil, you have to be really mean to your companions and mean to people you meet and I couldn't have done so, so every time I had to overcome myself for doing so. That's why I simply play the radiant knight.*
>
> *Interviewer: Mhm, so did you feel a little bit sorry for them?*
>
> *James: Yes exactly, although it is a virtual character I felt sorry for him. It is the same in other RPGs, if you have had a companion the whole time and then suddenly he dies, then, well, if that is because it is [narratively] planned then I feel sorry for him //mhm// yes, you do feel sorry, although you know that it's only a virtual character.*

At first, James is not able to immediately respond to the interviewer's first question. The question about the way he "treats" non-player characters is too "general" to him. The implicit call for a specification of the question seems to indicate a still unmarked but necessary context. It remains unclear what frame James would prefer. The interviewer answers the call and reformulates his question. On the one hand, he asks about the practice of playing and on the other hand about the experience with explicit behavior of NPCs. James' first reaction ("yes that's a thing") points to a more complex relationship and thus confirms the previously mentioned call for specification: A simple answer is no longer to be expected. Rather, James responds in the mode of a narrative about his experiences in *Star Wars: Knights of the Old Republic* (*KOTOR*)[c]. To James, the possibility to embody the role of a "villain" only has attractiveness on a theoretical level. James had to "overcome" himself to treat the non-player characters badly until he had practically realized that he could not consistently maintain such a role.

In this sequence, it is remarkable that James does not seem to distinguish between 'him' and the player-character he is going to play. Accordingly, the habit-contradicting behavior of being evil is very difficult for him. But a digital role-playing game is designed precisely on behalf of this distinction. But for James, the role he is playing in the game is, in a sense, the role he takes outside of the game. Here, a pronounced habitus is getting visible, which even remains effective in the virtual space of the video game.[d] The "willing suspension of disbelief" (Coleridge, 2014) is rejected in a rather unusual sense: In a certain way, James is not able to suspend from himself, so to speak. Therefore the non-player characters are not rejected as lifeless code-structures, nor are they disqualified as part of a narrative or fiction. On the contrary, the non-human players James runs into appear to him so 'real' that he is not able to maintain a fictitious and playful behavior towards them. In a way, James' habits of ethical ideals kick in into the game world and sabotage its framing "this is only a game".

James' speech of "overcoming" thus allows at least two readings: on the one hand, it appears as an attempt to overcome his habitus, which consequently has to fail ("and I couldn't have done so"). On the other hand, James describes his behavior towards non-player characters in *Star Wars: Knights of the old Republic*, which he is encountering, as cooperative companions or neutral characters. The overcoming which James would have to accomplish in order to show a morally bad behavior towards these characters, deals with a theme classically described as socially. The empathy (compassion?) which results from his immoral actions towards the affected non-player characters, is nothing else than the attribution of his projected emotions.[e] In the sense of an empathic suffering, James seems to feel the loss and pain of virtual companions. In his case, this even leads to a premature ending of the game

[c] The role-playing game *Star Wars: Knights of the Old Republic* can be seen as a prime example of a variety of moral choices, as the game makes it possible to redefine the moral spirit of the avatars in almost every game situation. In addition both a morally good and a morally bad way of playing can lead to a successful ending.

[d] In contrast to other interviewees, James pretends to always play himself, so to speak. But as another sequence in the interview shows, he rather plays an "idealized image of himself" (see the metaphor of the "radiant knight"), which makes it clear that he still remains in a mode of an as-if (see Bowman et al. (2016) for similar thoughts on character attachments).

[e] Again: Such 'transmissions' are not unusual in the analysis of reception of fictional worlds (see for example, Reeves & Nass, 1996). Nonetheless, the feature of interactivity in video games should propel this transmission even more.

because of the anticipated self-references of the NPC - that is, to reject the premises of his own actions in the anticipated experience of the other. The resulting "feeling sorry for them" at the end of the sequence is placed into an apparent paradoxical framework. At the level of first order observation, the compassion with emotionally injured persons is a quite legitimate figure. However, this is complicated by the fact that it is not a question of human beings but of non-human characters: "you do feel sorry, although you know that it's only a virtual character". It could also be formulated paradoxically: although compassion is not an adequate response, James shows exactly this response. Here, the paradoxical form allows James to say what cannot be said. It seems, as if an effective societal border regime becomes latently visible. In addition, the specific oscillation (paradox of fiction) that results from the difference between the experience during the game process and the reflection during the interview is documented by this peculiar conclusion.

Therefore, James' practice of playing cannot only be viewed as a particularly impressive example of the effectiveness of the "make-believe" aspect of games, but as well as an example of a minimal temporary attestation of personhood towards non-player characters. James' compassion oscillates, in a sense, on the diffusion of the difference between real and fictive reality (Esposito,

1998; for the case of video games see Juul, 2005). Actions and their consequences in the fictitious reality are observed from within material reality (with its corresponding moral standards) and thus the exclusive meaning of the role-playing game cannot longer be maintained totally. The activity attributed to fictional reality is connected with the observation of identity in real reality. In the end, it is James, who is the one who acts immorally. James' pronounced habitus – and his strong ability for being empathic with someone else – builds up to a minimal and maybe only temporary social situation in the sense of not disregarding the fictitious feelings of his virtual companions.

6.4. Non-Player Characters as Boundary-Subjects

James' perspective is no exclusive orientation towards non-player characters. For the question of societal border regimes raised by Lindemann (2005), I would like to contrast the case of James with some excerpts from the interview with Lisa. Like James, she as well is transferring her ethical-moral conceptions of 'real life' to the virtual game worlds. What she wouldn't do in real life, she wouldn't do in video games either. Although, for example, the game mechanics of the role-playing game *Fallout 3* do not sanction morally bad behavior, it is impossible for Lisa to play 'immoral'. The transfer of her avatar's actions to her self-image as a player even has the effect that she feels "miserable" and "stupid" when she violates her moral principles. Following this, the interviewer asks about Lisa's perspective on non-player characters:

> *Lisa: I am uhm, there is this character sheet which indicates whether I'm good, neutral or evil and I am always good (laughs), with over 100% or so.*

> *Interviewer: Okay. Uh, so do you try the other, do you try out the other possibilities as well, sometimes?*

> *Lisa: No, no! I'm not sure if there is anything wrong with me. So for example, in The Sims sometimes you can let them starve - so you just build a wall around them and then you can let them starve or burn them or what else. And I just did it once to try it out and I felt so miserably after that, so no, that does not work (laughing). Uhm, no. That is, somehow I feel stupid doing that.*

> *Interviewer: So do you feel sorry for the characters? For example, in The Sims in this flat*

> *Lisa: Yes, I feel sorry for them, because, I imagine that. I mostly transfer this to the real life as well and think, would you do that too? And then, of course, no, so, for me, no. And uh, I would find it somehow cruel. Or if, I don't know, I always have a relation to that. Sure, there are people who can simply say yes, you go die. I don't know. That is weird.*

> *Interviewer: Yes, for sure. (laughing)*

> *Lisa: Yes. Even if it is only, what can I say? Even if they are only pixels, uh but that is. Yes (laughing)*

Lisa's "100%" good playing behavior is justified by the fact that she would be transferring her ethical concepts of "real life" to the game world. Although the game mechanics of *Fallout 3* allows both sides of morality alike, it is not possible for Lisa to play immoral. The transfer of her avatar's actions on her self-image as a player goes so far that she feels "miserable" and "stupid" when she violates her moral principles. Thus, for Lisa the role playing in *Fallout 3* functions less as a taking of a different role and more like fitting the role to her own morals. The physical reactions to her test-wise "evil" playstyle seems to point to a habitually fixed - embodied - orientation.

However, the question arises as to how this implies a relationship to these characters. The interviewer's question as to whether Lisa feels sorry for the virtual characters (as mentioned in *The Sims*) imposes in a certain sense inner feelings of these characters, which could be touched by the player's actions. Lisa explicitly ratifies this proposition: "Yes, I feel sorry for them". According to the transfer of her moral-ethical concepts into the game, Lisa draws an analogy between the intransparent emotional realm of real-life characters and characters in the game. Because of her unbroken morality, Lisa must grant the NPCs some kind of 'right of living'. A violation of this 'right' would be a "cruel" act. This seems to imply a (contextualized) expectations-expectation: Lisa expects that the characters in *The Sims* expect a "right to live" or at least a morally equal treatment. Her distancing from other players, who willfully let these characters "die", supports this interpretation because in contrast to these "cruel" players, she would have a "relation" to them.

But even though Lisa does not see a perfect equivalence between virtual characters and real world characters, which is shown by the fact that they are reflexively ascribed as mere "pixels", she seems to see herself in a certain responsibility. The paradox of fiction constitutes as follows: characters made of pixels are not human beings, so they have no rights like humans. Nevertheless, they must be treated with a certain respect (see Lindemann, 2010 for a broader discussion on applying "human rights" to non-human beings).

In the following passage, the interviewer offers several times the proposition of applying a status of personhood ("self-existence"[5]) to these "pixel characters", which is every time negated by Lisa. In the discourse there is no clear conclusion of these two positions. The peculiar double accountancy in which Lisa describes her "relation" to NPCs is underlined by her constant negation of a personhood's status.

> *Interviewer: Uhm, but do they have like a, uhm, self-existence or such in a certain way?*
>
> *Lisa: What is self-existence?*
>
> *Interviewer: Or, or can something like that be, for example in Fallout, those bomb-worshipers for example…*
>
> *Lisa: (laughs)*
>
> *Interviewer: Uhm, or, I don't know, for example in a quest: a mother is looking for her lost child or something like that?*
>
> *Lisa: What is self-existence? So…*
>
> *Interviewer: Do you see them the way as, or do you see the…*
>
> *Lisa: As a real person? No. But more in a way, that it reflects certain values or something like that.*

Several times the interviewer offers the proposition to attribute some kind of status for personhood ("Self-Existence") to non-player characters, which is however every time negated by Lisa. At first, it seems that there is no definite conclusion between these two positions. Thus, we are able to observe what Lindemann characterizes as propositions for a generalized status of personhood. She differentiates between "foundational" and "communicative interpretations" of that kind of status (Lindemann, 2009). Thus following Lindemann's argument, the indecisive interchange between Lisa

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[5] Here, the German term "Eigenleben" (lit. "life in its own") used in the original transcript is translated to the more appropriate English term "self-existence".

and the interviewer can be understood as a communicative interpretation of the status of NPCs (in terms of "self-existence") and as a joint search for a generalized, fundamental answer. Interviewer and Lisa both propose excluding statuses and neither of them are gaining high ground on their interpretation's version. At this point, so it seems, it would need the stabilizing force of a third party (which could be institutions, expert knowledge or further people present).

But even though Lisa's decision on the status of the NPCs seems quite firm, her refusal to accept the interviewer's proposal remains incomplete:

> *Interviewer: Okay, then, would you say that you see them so, uhm, so partially these characters as real persons?*
>
> *Lisa: Well, as a real person is already too extreme.*
>
> *Interviewer: Or as persons somehow?*
>
> *Lisa: (moans softly) Eh, I don't believe so. Not as a real person. Eh, not like people in a TV-series or so not even that. Uhm, maybe more like in books, that I imagine what, okay, since I have still given characters uh, you may still identify or compare… But not in the sense that I would say: this is my girlfriend or something like that (laughs), no.*

The persistent questioning of the interviewer on the topic of self-existence is again denied by Lisa. However, a certain bracketing is retained when she rejects the proposition as "too extreme". There is no total rejection, but a differentiation: Lisa draws the distinction of "real persons" and "people in a TV-series" or books. Within this differentiation the degree of 'realness' diminishes step by step, going from real persons (such as a girlfriend) to characters in TV-series, in books, or (implicitly) in video games. Lisa can identify with the latter, but she cannot build a relationship with them. With the help of her strict comparison between human beings and virtual characters like NPCs, she underscores the insurmountable different qualities of her differentiation: the symmetry of both groups (humans/non-humans) of the interviewer's proposition appears abstruse or even ridiculous ("laughs").

The transcript passage with Lisa shows that individuals are limited in deciding whether or what can be generalized as a social agent. It does make a difference whether the NPCs in *KOTOR* or *Fallout 3* are granted latent traits of subjectivity in a private or intimate setting, or whether this attribution is to be discussed in game-external situations (like sociological interviews). Neither the interviewer nor Lisa alone is able to decide whether the NPCs in the video game are legitimate social actors or not. With Lindemann it becomes clear that there is a need for further actors or institutions to decide this interpretation in a fundamental way. The non-player characters thus retain some degree of artificiality for Lisa, which negates to be perceived "as real persons". From this perspective it can be seen that Lisa refrains from 'treating' the NPCs badly because she can (a) not deviate from her moral principles and thus considers the NPCs with some respect in terms of latent personhood, and (b) because she shows an orientation to the experience of the other, which is expressed by the fact that Lisa is able to imagine herself through the eyes of the NPC.

Albeit in the form of an initial ignition, these practices of emergent play are possible because of the somewhat private dyad between human players and non-player characters. The passage from the interview with Lisa underscores that the involved communicative partners are not sufficient enough to find a common conclusion, and thus represents and reproduces the discourse on the status of non-human entities in general. The interviewer's proposition of "self-existence" in NPCs and therefore a status as true social persons ready for true relationships is repeatedly negated by Lisa. The disposition of non-player characters remains in balance between subject and object. NPCs are,

so to speak, epistemic boundary objects which have to endure various logical approaches at the same time.

7.   Discussion

Supported by empirical data, this study contributes to the further understanding of the foundations of virtual relationships between humans and non-humans. With regard to the topic of empathy towards non-player characters (NPCs) the results illustrate, on one hand, how difficult it is to maintain a minimum complexity of sociality between virtual and human actors. But on the other hand, the results not only give first insights into possible developments for more complex virtual agents but, especially, into the capacity of the human mind in the context of virtual empathy.

In the reconstruction of the various types of dealing with non-player characters, a common reference problem could be identified. It is the tension between triviality and personality that is more or less present in all of the interviews. This is, in a sense, the basic type of orientation (Bohnsack et al., 2010) towards NPCs, which shows itself as a commonly shared implicit knowledge of the practice of playing computer games.

This implicit knowledge points to an indeterminacy, which appears in dealing with NPCs due to the fact that these characters, on one hand, may be observed against the background of machine logic ("trivial machine") and on the other hand, against the background of personhood ("non-trivial machine"). In their concrete media practice, the interviewed players frame themselves within this logical dichotomy which, in the practice of playing, leads to differentiated forms of practical patterns. The players have to deal with an intransparent 'black box' of computer and software logics. According to that, the players have to figure out by themselves how the game will react. The machine will always stay "invisible" (Luhmann, 1995). Therefore, the interviewed players always have to deal with the problem of double contingency which is known in sociology for a long time (cf. Luhmann, 1995): Actors will always be intransparent for each other. Similar to the concepts of neuro-constructivist thinking, it is only through virtual (i.e. imagined) expectation-expectations that the "other" is socially stabilized – or not.

7.1. Limitations

The dedication of new research areas, inevitably, leads to further questions for subsequent research projects. Sociology is still at the beginning of identifying genuinely sociological questions and aspects regarding computer games. Even though from a methodological perspective, it proved to be highly productive to choose a reconstructive approach, that is why further research on practices of playing computer games appears imperative. In this sense, it seems advisable to pursue further research on dealing with computer games and computer players. For this, it will be necessary to generate further differentiations of the suggested typology. For example by increasing the number of participants, by focusing on specific groups, or by focusing on individual games. In addition, the aspect of sociogenesis of orientation patterns, which was deliberately left out in this study, appears to be in need of more attention (e.g. who prefers what type of orientation? Are younger players more willing to suspend the disbelief regarding "pixel-characters"?). Also, the so far only implicit observed connection of players and specific games is still unanswered. Similar to the study by Jorgensen (2009), a research design could be worked out which focuses on individual computer games or genres, and asks for specific orientations according to specific games. The empirical evaluations presented here show relatively clearly that it is primarily the genre of role-playing games which, temporarily, invites to attribute some degree of personhood to NPCs.

7.2. Conclusions

Considering the given empirical data it becomes clear that the societal border regimes (still) react with rejection in regard to relationships with virtual entities such as NPCs. There is no legitimate third party who would recognize these entities in a generalized way as social persons. Thus, NPCs have to remain in the field of quasi-social-dyads between human players and their virtual counterparts. However, in order to be permanently stabilized, a "cascade of confirmations by third parties" (Lindemann, 2009, p. 245) is needed. Until then, the status of non-human beings must remain undecided. This relates to the objective fact that NPCs still "largely lack the ability for emergent social behavior. NPC behavior is still very limited in scope, or only partially convincing when it needs to be performed in an emergent manner" (Warpefelt & Verhagen, 2017, p. 50).

However, the very brief reconstructions that have been carried out in this study show that the practice of dealing with NPCs enables (at least temporarily) both perspectives. Especially the non-player characters in RPGs present particular conditions in regard to the phenomenon of agency: Here, NPCs "can seem much more real because they seem to, and have the capacity to, act in a varied number of ways and, perhaps most importantly, can also act upon the player" (Parsler, 2010, p. 142). Therefore, non-player characters inherit the status of a boundary object (or better: boundary subject?): Objectively, they may appear as mere graphical representations of algorithmic code. But subjectively they may, as well, appear as quasi-intentional and equal players in the virtual worlds presented on the screen. That kind of episodic attribution of "personhood" resembles that of historic stratified societies: back then, the critical issue was not "who belonged in general terms, but who, in a given situation, was hierarchically empowered to decide whether or not someone was a social person and who or what was excluded from that circle" (Lindemann, 2010, p. 29f.). Today, the power for attributing personhood lies in the hands of human players alone. But where will the development of AI lead in this respect?

This would even raise the question of an ethics for dealing with intelligent artefacts, which in the future could be recognized as legit members of society. At a minimal level, one could dare to assume that the practice of dealing with virtual artificial entities already takes place in computer games: "Debates about the ethics of computer games are informative for the issues under discussion. Since the definition of robot used in this paper is fairly broad, it would be reasonable to assert that when gamers shoot and kill computer-based avatars containing some degree of AI, then they are abusing robots in the sense under discussion here" (Whitby, 2008, p. 329). At the very latest with the emergence of algorithmic intelligence, one clearly comes to the question of the extent to which sociality must be thought of with new communication participants. But today it is not finally decided whether they are a subject or an object, and whether they could engage in a relationship we call social. But perhaps the realms of computer games are a social "training ground" for developing the necessary skills and cultural forms for these relationships? That is, since according to Huizinga's (1980) study on the play-element in culture it should be clear, that "the meanings of play—of video gameplay in particular—are ultimately connected to social and material realities (rather than offering merely a means to escape from those realities, as it's widely believed)" (Jones, 2008, p.15).

Furthermore, it is striking that in dealing with non-human beings the corresponding empirical observations, self-reflexively, lead more to the observer than to the observed being. On behalf of the fundamental concept of empathy for human sociality, these considerations lead to a nearly limitless human empathy. Because of the powerful phenomenon of the suspension of disbelief, different behaviors and observations, empathy, and lifestyles can be tested in computer games, which remain inaccessible in real reality. But there are as well some 'risks' involved. Because "on the other hand, however, the further our empathy disconnects from direct, bodily experience, the more it tends to lose contact with the other as such. This implies the risk of the other becoming only an image, a frequently misunderstood projection — a virtual other" (Fuchs, 2013, p. 155).

To conclude, it can only be noted that the results and propositions presented here hopefully stimulate further discussions on the theoretical (and practical) issue of the recognition of artificial entities as social partners. The question as to how far sociology comes to integrative or negative forms of theories in this subject should be regarded as a worthwhile undertaking. The internal discussion in sociology, however, reveals nothing less but a recognition process for the recognition rules on how to treat non-human beings.

In the case of non-player characters, these inhabitants of today's computer games have the 'advantage' of being a part of a virtual game world. In contrast to "ordinary life" (Huizinga, 1980), the frame 'this is a game' leads to more possibilities in dealing with them. Perhaps that is why video games just so successfully invite human players to conceive non-human players at least temporarily as symmetrical beings? Of course, there is no automatism in producing durable relationships between human players and non-human players. We rather have to assume that even though the coding and presentation of NPCs has tremendous effects on the perception of the virtual counterpart[f], it is not determined in which way human players

[f] It is to be highly expected that developments in this area will continue. See for further developments on the field of designing non-player characters, artificial intelligence and its impact on the perception of human players Lankoski & Björk (2007), Ochs et al. (2008; 2009), Stuart (2016).

are willing to immerse themselves in a real virtual relationship. Different human players will always show different types of relationships with non-human players.

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