Kristina Šekrst, University of Zagreb, Croatia

The Status of Video Games as Self-Involving Interactive Fictions: Fuzzy Intervals and Hard Identifications

Abstract

The goal of this paper is to see how mental and language representations are unique from a video-game perspective, using two main criteria. First, I will posit that the level of being both an interactive work of fiction and a self-involving interactive fiction belongs to a fuzzy interval and that some works – and, therefore, some video games – are more immersive than others. Second, I will observe how propositions tie the player's representations of the real world and the game world. Starting from psychological theories of pretense in children's make-believe games, I will then expand Nichols and Stich's cognitive theory of pretense to include an extra layer related to the game world, i.e., player-specific representations that govern player-specific propositions. The representations dealing with the work world are the socially shared ones, while the possible-world representations, dealing with most of the game world, are player-specific and tied to unique language use.

Keywords: self-involving interactive fiction, cognitive theory of pretense, game world, pretend play, video game representations

1. Interactivity and Fuzziness

Self-involving interactive fictions, or SIIFs, are fictions about those who consume them, unlike 'canonical fictions' in which consumers most often have no influence over the structural properties of their objects, such as TV shows, films, or novels (Robson and Meskin 165). Standard examples of interactive fiction would be choose-your-own-adventure books or interactive films, such as Mr.

Payback (1995), which required the audience to vote for various story directions using joysticks attached to the armrests in the theaters, or a recent example of Black Mirror: Bandersnatch (2018), where Netflix users used their remote control systems to decide upon characters' actions.

However, this is not the standard or normal way these fictions are consumed, whereas, in video games, the standard mode of consuming the work of fiction necessarily involves interaction. For Robson and Meskin, self-involving interaction is inherent in the nature of video games, which makes them the most prominent example of the class of SIIFs (166). However, they state that being an SIIF is not sufficient for being a video game (166). The given interactive examples are clearly SIIFs, but they are not video games. First, I would like to describe the class of all fiction more formally as a fuzzy range of their interactiveness. In fuzzy sets, elements have a degree of membership (Zadeh 338). For example, instead of opting out for just being (1) or not being (0) in a certain category (inclusive interval [0, 1]), something can be halfway there, closer to not being, or closer to being a perfect example. Consider natural language terms such as "tall" or "short," where the word might refer to a tall building and indicate hundreds of meters or to a tall human being, denoting a maximum of two meters. The value depends on the given context and might shift.

Think of this compared with Rosch's prototype theory: in Western culture, a sparrow or a pigeon is a more prototypical representative (a more central member of a category) of the concept bird than a penguin or an emu. Some birds are better examples of the property of "being a bird" than others; for example, we usually associate birds with flying and penguins cannot fly. In the same way, some fictional works will be better examples of interactivity, and some will not, but one can argue that all works of fiction possess at least minimal elements of interactivity. So, the work might be not at all interactive (0), fully interactive (1), or something in-between.

From a philosophical standpoint, one could argue that 0 might be far-fetched since there is always some interactivity involved. That is, all fictions might be interactive in some minimal sense, for example, one could raise an objection that even the act of watching a film or turning the pages of a book might be seen as a minimal interaction since it is required to progress through the work of art in question. 'Interaction' can mean different things in philosophy, physics, linguistics, biology, sociology, as well as in many other disciplines, amounting to a general definition of a certain action that occurs between at least two entities. However, video games are standalone works of art, and

they do not manifest interaction in the same way as, for example, physics does, or the same way a non-gaming action might incorporate it. For now, I will observe interactivity through the lens of fuzzy logic in works of art, video games included as a distinctive and autonomous form of art. In order to see what makes video games distinctive, we first need to discuss the self-involving interactive fictions.

If the work of art is interactive, it can be considered a self-involving interactive fiction to a certain degree. For Robson and Meskin, video games "stand in sharp contrast to most other kinds of fiction (even other kinds of interactive fiction)" because other works are rarely about those who consume them, and even if they are, they are not so in virtue of their interactivity (165). One could also object that not all video games are SIIFs, especially when considering Tetris (1985) or Chessmaster series (1986 -), but according to Robson and Meskin, the vast majority of video games are such fictions (166). Objections like this one can be easily incorporated into formalizing the notion of interactivity as a fuzzy interval. Not all video games are SIIFs, since being an SIIF is again a fuzzy interval [0,1], where possible levels of interactivity and consumer-oriented approach lie somewhere in-between the interval. I am not sure whether both extremes 0 and 1 are feasible or realistically plausible. Imagine a work of art of any kind that has no interaction involved whatsoever, one could argue whether it constitutes a work of art at all, but this, again, is a matter of debate in aesthetics and art theory circles. However, the same applies to the next extreme – being a fully interactive SIIF as a perfect example of immersion. Could we even talk about something that is a perfect example of self-involving interactivity? Intuitively, it is probably an interval of excluding extremes, but I will leave the range as is for theoretical purposes.

2. Video Games as SIIFs

We have established that video games are proper 'prototypes' of SIIFs, that is, they are closer to the fully interactive extreme of the given interval of not having any SIIF quality to possessing all the essential ones. I am interested in what "being an SIIF" does to language and the cognitive mechanisms behind it. Namely, by being SIIFs, video games allow you to utter sentences that were not common a century ago, such as "I died three times today." There is a notion of self-

identification and pretense of reality involved. However, in order to analyze them, we need to define what our logical domain comprising the meaning of the utterance is. Namely, if you say, “Mark died today,” and your logical and language domain is the standard one, which excludes video games, Mark has really died today, but if your domain is restricted to the world of video games, Mark is still alive, but his character as a pretense extension might not be.

Walton differentiates between ‘work worlds’ and ‘game worlds,’ resolving the ontological confusion (59). For him, the ‘work world’ is the fictional world of the work itself, while the ‘game world’ is the fictional world created by our engagement with the work. What creates confusion is that both worlds share fictional truths. For example, work worlds occupy propositions that are true in the work itself, how the creators have pictured it, cf. a proposition “Darth Vader is Luke’s father.” Even though there are no Russellian (cf. Russell 479) objects in real life such as Darth Vader or Luke, these propositions are true when their domain is restricted to the world of a work of fiction. Game worlds, on the other hand, occupy propositions related to the player’s influence; for example, “I killed a dragon.” For Robson and Meskin, “the player’s actions genuinely make things about the player true in the fiction of the video game” (167). That is, even though you did not kill a dragon in reality, this proposition is true in the fiction of a video game, in the domain that comprises the game world.

Consider the proposition “I was bitten by a zombie.” It does not have to belong to the game world of a video game as an SIIF. Children could have been playing some sort of zombie game, chasing each other in the yard, and then the interlocutor had lost the game. This could, of course, hypothetically belong to the logical domain of the real world, but that is outside the scope of this paper. If I (that is, of course, my character), on the other hand, join a guild of thieves in Baldur’s Gate II (2000), then “I am a thief” is a proposition that is true in the game world (and hopefully not in the real world). How do we explain such first-person identifications? For Robson and Meskin, the player, let us name her Alice, is “authorized to imagine” that she is, for example, Spider-Man (169). Another observer, let us name him Bob, may utter “You beat Galactus by swinging at him on your web” – referring to Marvel vs. Capcom 3 (2011) – accepting the identification and the restriction of the logical domain in which the propositions are contained. By virtue of taking actions, a player

makes the case that certain things are true. If Bob proclaimed: “I defeated Galactus,” he would be making a mistake (cf. Robson and Meskin 167).

Robson and Meskin raise the point that one might object that sentences like “Bill beat Galactus” are “merely an elliptical way of expressing something like ‘Bill cleared the final boss of Marvel vs. Capcom 3,’” which they disregard because of the deep involvement of players in the narrative, along with the fact that we do not use similar paraphrases for other propositions in the game or work world, and that SIIF functions as a more convincing explanation for this kind of identification (169). I would like to add that we could also see such utterances as shortened propositional attitudes: “[I believe that] I was bitten by a zombie [in this game],” and that the interlocutors are cooperating using maxims of manner (Grice 47), emphasizing needed brevity. However, I will also take the stance that we would expect such shortened propositions regarding other aspects of the work as well, for example, talking about current story actions or cutscenes, which seems redundant. If a hero is kissing another hero in a cut scene, my utterance “Jack and Jill are kissing” would not be short for “I believe that the characters of Jack and Jill in a fictional video game are manifested as if they were kissing,” there is a certain layer of domain restriction present: the game world is now our reality domain. That is, a video game is an SIIF. Robson and Meskin state that such characterization of a video game is close to childhood games of make-believe, but they do not elaborate on the connection (167-68). If a video game is close to the prototype of an SIIF, we will have a layer of representations dealing with the game itself, similar to pretend play in children. It is my goal to prove this in the following chapter.

3. Make-Believe

For Fein, ‘pretense’ reflects a stable personality trait, and a shift from solitary to social pretense may occur at about three years of age (1095-100). Jaswal emphasizes that in various studies, “many children seemed to trust what they were told despite the fact that it conflicted with their initial expectations,” that is, there is a robust bias to trust even the most surprising testimonies (19). It is no wonder, then, that children do not find pretend play or identification in video games all that difficult. Hopkins et al. incorporate a fuzzy way of looking at the difference between what is pretend and what is real: a strict quarantine in which pretend and real worlds are strictly separate at one

extreme and completely permeable at the other (2). They mention that “at least some quarantine is logically necessary” since children playing with banana “telephones” do not consequently think that bananas are really telephones (2). Hopkins et al. establish that children must distinguish between pretend and real context, that there is no complete permeability across the boundaries of these contexts, and that real information must wend its way from the real world into the pretend world (2). Their studies have shown that children can learn new things in a pretense context and, in turn, use the acquired knowledge in the real world. But children are not the only ones playing video games. For example, Riordan and Scarf highlight the use of Minecraft (2011) to aid individuals with autistic spectrum disorder and promote civic engagement, along with helping enhance mental health and wellbeing, while Griffiths emphasizes positive effects on the mental health, increasing IT skills, and decreasing technophobia (47).

Most of the pretend play studies focus on children because the notion of pretense is applied to make-believe games and not to a broader and more general context of role-playing. Lillard has applied Putnam’s Twin Earth theory to pretend play, a theory that could be summarized with the famous quotation “meanings ain’t just in the head” (516). For Putnam, a Twin Earth thought experiment involves a Twin Earth, which is identical to Earth, except that all water is XYZ rather than H2O, so the chemical compound the word “water” refers to on Earth is different from the chemical compound it refers to on Twin Earth. Even though they are mutually indistinguishable, Putnam has used this example to introduce semantic externalism, pointing out that the meaning of words cannot be determined solely by the speakers’ minds. Lillard has devised the twin earth model of pretense-theory of mind relations (515). When children pretend, they posit an imagined world that is quite similar to the real world, but some parameters are changed, for example, the child becomes the mother, and the doll becomes the baby (Lillard 516). She claims that both the Twin Earth thought experiment and pretend play are decoupled from reality but enhance reasoning under some circumstances (Lillard 516). One part of that model is joint attention, which is of interest to the video game context since all pretenders “must focus on the same set of objects, activities, and events, with a set of shared presuppositions” (Lillard 518). Weisberg confirms this intuition by stating that pretend play can increase children’s counterfactual capabilities (249).

Let us now move back to adults since it seems that there are two important implications in these studies. First, there is a layer of representation belonging to the imaginary world, and second, this layer can be shared among other participants in the pretend play. Children are not the only ones engaging in pretend play, and besides video games, there are various tabletop games, most notably Dungeons & Dragons (Kapitany et al. 2).

I will now turn the focus to Nichols and Stich who have proposed a cognitive theory of pretense. For them, pretend play in adults requires a couple of steps. The first step is establishing a premise (Nichols and Stich 118-19), that is, the context or the role in question: “We are having a tea party” or “I am a mage fighter.” The second step is inferential elaboration, where the pretender is able to draw inferences about what is happening in the pretense (Nichols and Stich 119). For example, if the experimenter “fills” up the empty cup at Leslie’s tea party and asks her which cup is the full one, she is going to point to the one that we all pretended to be filled up. The third step is embellishment or non-inferential elaboration, which deals with filling out the story with the desired details or events (Nichols and Stich 119); for example, someone else might visit our tea party, or we might even serve pretend ice cream. The fourth step is the production of appropriate pretend behavior, that is, the pretenders actually do something (Nichols and Stich 120). It would not be appropriate if one said that there was no tea inside their “filled-up” cups while having a pretend tea party, but it would also not be appropriate for one to dance if one was supposed to be “dead.”

For Nichols and Stich, episodes of pretense can be of various lengths, but when the episode is over, the pretenders resume their non-pretend activities, while the pretend events have quite a limited effect on the post-pretense cognitive state of the pretender in question (120). Compared to the mentioned studies on children’s pretend play, it seems that from our early childhood, we seem to have a cognitive layer of being aware that the pretense is not real, and yet we are immersing ourselves as if it were real. Even though a child knows that a banana is not a kind of a telephone, she pretends that it is, and that does not bear any important consequences on her real-life beliefs about telephones. In the same way, if a child or an adult saw a dragon being born out of an egg, they would probably not be scared of seeing eggs in a grocery store. For Nichols and Stich, a theory of pretend should be able to explain how the pretender’s cognitive system succeeds “in keeping what is really believed separate from what is pretended” (120). This is important since it

brings us back to the studies on children's pretend play, where there was a certain representational layer, keeping the rules and settings of pretend play separate from reality.

4. Linguistic and Cognitive Mechanisms

Propositions and beliefs about pretend reality are not always immediately obvious. For example, "I killed a dragon" obviously refers to an imaginary world, but one could also say: "I ran to the next village," or "I married a nice girl," and this could refer to Metal Gear Solid V: The Phantom Pain (2015) or The Sims (2000) respectively. Nichols and Stich advocate for a representational account of cognition, where beliefs, desires, and other propositional attitudes have representations in our minds that store their context (121). Of course, this is not the only seemingly valid theory of mind, but the vast majority of research does deal with our beliefs and desires, even though we still might not be sure about their background ontology. But what they add to this standard model is a certain 'possible world box,' which "represent[s] what the world would be like given some set of assumptions that we may neither believe to be true nor want to be true" (Nichols and Stich 122). This applies to all pretense, both in children and adults. But are video games a distinctive kind of SIIF? First, as we recall, the level of pretense is going to be fuzzy - the possible-world representations might vary depending on the "strength" of the pretense taking place. Video games are a distinctive and standalone form of art, with a difference peculiar to videogames only; there is a unique way of differentiating between canonical work worlds and game worlds. Namely, similar works of art could also offer interactivity in fuzzy ranges, take for example, interactive TV shows with a certain canonical world corresponding to the game world. My take on Black Mirror: Bandersnatch might be seen as analogous to the game world. But is there something missing? I believe the key value here is the notion of identification.

As a video game developer or a story designer, I might design a "canonical" ending, but there might be various different ones. When I play Star Wars: Knights of The Old Republic (2003), I might be a canonically good character, but I might also take an evil route and kill all the Jedis or take some middle ground. In complex video games, there are options, cutscenes, stories, and quests a player might not even reach even though they are a part of the 'work world' (cf. Walton) of the game. The work world corresponds to a set of premises, that is, to the first step in the cognitive

theory of pretense, along with deducing what the possible actions are, and thus leading us to the second step. The third and fourth steps, i.e., filling out the story or producing pretend-appropriate behavior, might differ from player to player. In Nichols and Stich's model, the 'possible world box' with 'canonical' reality would always stay approximately the same, comprising rules, background, premises, setting, and lore. In other pretense gameplays, the set of premises usually starts anew or is minimally changed. For example, if I finish a video game, my starting point in the replay will be similar, and although I might possess new knowledge, the whole setting does not change significantly.

However, something will change: your player-specific reality. You might look at some characters in a different light since you may have discovered their secrets. Or the gameplay might now be entirely different since you have decided to take a different route or accept a different quest. A long time ago, I played the original version of Silent Hill (1999) where I have made one bad decision during a boss fight, and ended up with a really bad ending, which I could not change after making just one bad decision. I have still loved the game but hated my gameplay. I have had beliefs and desires about certain actions and characters, which changed in my next gameplay. My possible world box regarding the work world itself was pretty much unchanged – but it seemed as if there was a need for a gameplay-specific possible world box, referring to representations connected to your current experience and a set of beliefs and desires regarding the game.

For Nichols and Stich, the possible world box holds our representations about the pretend game (122), but it seems to me that in video games there is a need for further differentiation. Namely, you can have a sub-box of representations applying to the game lore in general, which is your starting point in every gameplay. This is also a shared box of representations between other players since there is a small probability of completely identical gameplays, no matter how straightforward a video game might be. But another possible world box of representations is a different one: you will not share your experiences and specific gameplay choices with most, if not all, the players out there. Under this social pretense, you only share the work world and some aspects of the game world, but not all of them. For example, you might be a good Jedi knight or a dark-side one. You can share representations regarding your choice of being a Sith-like knight with other players who have made similar choices. Yet, there will always be something unique to your

experience of the game, namely, the fact that it is your experience or, to use a standard philosophical term, your manifestation of ‘qualia.’

‘Qualia’ are “introspectively accessible, phenomenal aspects of our mental lives” (Tye). I might like chocolate but hate melons. This is specific to me. But I also might have a set of subjective feelings, beliefs, desires, and similar representations regarding a video game. A video game is, to a certain degree, a self-involving interactive fiction. It is no wonder that our subjective experience is important here since we are identifying as a part of that video game by taking different actions. I started hating Resident Evil 7: Biohazard (2017) while trying to complete it using Madhouse mode. My set of representations has changed, but my possible world box regarding the standard representations dealing with the work world – and partially with the game world – has not. That is, I was still making the same decisions respective to the work world, but the same work of fiction was now eliciting different mental states. One might object that it might be the same with books or movies, depending on the emotional state of the reader or viewer. However, I felt it as a personal defeat, which is again connected to the important notion of identification. I was the one failing, not my character or some character. To put things into perspective, video game identification was studied from a psychological perspective. For example, Klimmt et al. tested out whether video game players identify with the role they were assigned, which leads to automatic shifts in implicit self-perceptions (351). Namely, the gaming experience apparently induces players to change their self-concept toward the properties of the character they play (358).

We are consciously aware of the pretense, but we have an extra layer of representation that lies between the made-up world and the real world. That layer may be closer to the real world if we are not fully immersed in the game or almost indifferentiable, especially when we consider virtual and augmented reality. Again, it is a matter of a fuzzy interval, so the additional set of representations belonging to my game world and my representations dealing with my gameplay – compared to someone else’s – are going to vary.

This kind of model, which includes shared possible-world representations belonging to the work world and personal possible-world representations belonging to the game world, actually mimics our language use. We have a shared set of conventional meanings. When I utter the sounds d-o-g,

we share a prototypical meaning of a dog. But in my mind, it will most often be a personal, qualia-ridden image of my childhood German shepherd Ben.

An obvious objection would be to say that my experience in Black Mirror: Bandersnatch might change, mimicking the change in beliefs or mental states. However, the key once again lies in the discourse used to describe this kind of immersion or interaction. I have mentioned that the player's actions make things true within the game world. I might or might not kill a dragon, and, accordingly, a proposition "I killed a dragon" might or might not hold true. But my propositional attitudes also change depending on the level of my immersion. I might utter: "I believe I have killed the dragon," bearing a propositional attitude toward my statement, but that level of belief is going to change according to how close my representations are to the ideal of a fully immersive fiction, i.e., to the ideal of an SIIF. A person will not state "I jumped out of a window" while interacting with Bandersnatch but rather something along the lines of "I made him jump out of the window."

One might object that one could also have a different set of mental states in a different reading of a choose-your-adventure book or in a different replay of an interactive film. This is correct to a certain degree. The same level of experience and interactivity is not the same in reading an interactive book or playing an interactive video game since the latter is closer to the extreme of total immersion. Following Robson and Meskin, the first-person language ("I killed the boss!") is rarely used when engaging with interactive films and novels but is almost a rule in video games, emphasizing the stronger identification and the intentionality toward the consumer of the work of fiction. This notion can be roughly verified on social media such as Reddit. For example, the search for cues such as "I died" yields thousands of results on gaming subreddits, such as r/gaming, but top results on r/movies and r/books merely refer to either the title of works or emotional state metaphors. The analogy is present in psychological experiments (Hefner et al.), which emphasize the importance of identification that yields altered self-perception of the player.

5. Concluding Remarks

I have argued that video games are a distinctive kind of self-involving interactive fictions, unique in their almost extreme level of dealing with the consumer of the work. Video games are SIIFs, but the inverse does not have to hold. I have argued that both the level of interactivity (non-interactive

fiction compared to choose-your-own-adventure-like works) and the level of self-involvedness belong to fuzzy intervals, that is, they are a matter of a degree. A work can be more or less interactive, and a video game can be more or less immersive, interactive, or player-involving.

With that in mind, the level of immersion has to do with the layer of representations we have in our minds as regards the video game itself. Psychological and developmental studies have shown that children are susceptible to believing in fictional stories while having a high level of belief, and that they have a representational layer distinguishing make-believe game from reality. Namely, the child does not believe that the telephone is really a banana and does not carry over the experience that a banana is a kind of a phone to her real world. Video games, with their SIIF-like attitude, which may be closer or farther from an ideal, prototypical SIIF, work as pretend play in adults as well. There is a layer of identification and representation present, for which I have used Nichols and Stich's cognitive model of pretense reality. The notion of language use that pinpoints identification is of central importance here since it indicates that the degree of pretense reality is extremely high in video games. In fact, it is so high that it alters the players' conceptions of themselves.

However, even though their model is extremely useful for pretend play in general, both in children and adults, I believe that Walton's distinction between game worlds and work worlds is important in cognitive modeling as well. Namely, not only is there a set of possible world representations in our mind, which represents mental states regarding the video game in question, but there is also a portion of it that changes with each gameplay or throughout time, while the other representations barely change, mostly those related to the work world, story, lore, and basic rules. However, since we are dealing with an SIIF, our actions and interactions can create a different experience every time, which is probably the most obvious in various massively multiplayer online games. Different gameplays create different representations and change the possible world box mental representations stored in our minds. This differentiation is complete with the mentioned notion of identification. Namely, our pretense and immersion are exemplified by our use of language, showing how the player's perception of the self changes with the video game, as illustrated by psychological experiments. Video games, no matter what their level of interactivity might be, are a specific form of art that provides the player with a unique psychological experience.

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