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The Phenomenology of Video Games: Implicit Assent, Immersion and Avatarial Embodiment.

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Abstract

This thesis explores the social outcry surrounding video games, seeking to understand claims that video games engender violence or other pejorative outcomes from a philosophical perspective. Following from feminist scholarship, especially Rea Langton and Caroline West's adaptation of David Lewis' notion of conversational score, this thesis mobilises the idea of implicit speech in order to take a look at what video games might be saying to the player and whether or not this speech can explain the aforementioned changes. With particular attention to the presuppositions that games often encourage us to make, this thesis argues that video games are distinct from other forms of media due to their interactive and immersive nature. This distinction is sufficient enough to warrant concern about implicit assent and presupposition in ways that would be trivial with other fiction.

In order to show this, attention is paid to immersion as an embodied state and how it impacts how a user relates to their environment. Phenomenological literature is used, with particular reference to the likes of Edmund Husserl, Maurice Merleau-Ponty and Luna Dolezal, in order to reveal the precise machinery underpinning changes to one's own embodied subjectivity *vis-à-vis* immersion. This thesis argues that once immersed, one's agentive framework, among other things, shifts to the world of the game, embedding the acting self in the avatar. This state of virtual prosthesis is argued to unlock a new field of affordances (in the vein of James Gibson) which in turn influence one's cognitive orientation. From this vantage, the final section of the thesis shows how the aforementioned dovetail with an account of implicit speech to show how presuppositions can affect conversational score in a manner which provides a new perspective on whether video games can be considered to influence behaviour.

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This thesis would not have been possible without the professional support and patience of my primary supervisor, Dr. Komarine Romdenh-Romluc. Her tireless efforts and love of wisdom truly foreground the etymology of the word Philosophy.

I would also like to thank my family. Without the personal and financial support of my parents and grandparents, this thesis would have ended long before it had the chance to conclude. In addition, the genuine interest and questioning of my cousin was always a wellspring of inspiration.

Finally, I would like to thank my friends Daniel and Sporan. Their natural wit and keenness of mind betray the Philosopher in all of his illusions.

For,

Boyd, whom I miss daily.

Everything was for you.

Declaration

I, the author, confirm that the Thesis is my own work. I am aware of the University's Guidance on the Use of Unfair Means. This work has not been previously been presented for an award at this, or any other, university.

Introduction

Perhaps twenty or thirty years ago it would have been necessary to provide a thoroughly reasoned argument in favour of studying video games as a cultural phenomenon. It would have been methodological checkmate to launch into my thesis on video games without first proving, with perhaps some difficulty, that they are a socio-political *tour de force*, influencing billions of people around the globe. Even as recently as thirty years ago it would still have been valid for a panel of scholars to raise a querulous eyebrow at the notion of philosophical research which centred itself on video games. As of the time of writing this is no longer the case. To doubt the sheer power that video games hold, to have reservations about the need to understand the single most pervasive form of modern media, would not be sensible.

As of 2020, in part due to the global pandemic, the video game industry's global revenue reached a meteoric height of approximately $180 billion, making it more profitable than the global film and North American sports industries combined.[1] Much anticipated releases such as *The Last of Us, Part II* (Naughty Dog, 2020) and *Cyberpunk: 2077* (CDProjeckt RED, 2020) were in development for 7 years, requiring a staggering division of labour to complete, which is commonplace for modern triple-A titles. *Red Dead Redemption 2* (Rockstar North, 2018), recipient of many game of the year accolades and almost universal critical acclaim, grossed over $725 million in its opening weekend alone, placing it behind *Grand Theft Auto: V* (2013) which grossed $1 billion in a similar timeframe.[2]

[1]<<https://www.marketwatch.com/story/videogames-are-a-bigger-industry-than-sports-and-movies-combined-thanks-to-the-pandemic-11608654990>> last updated Jan 2, 2021. Accessed: Jan 14, 2021.

[2] <<https://www.hollywoodreporter.com/news/red-dead-redemption-2-breaks-records-725-million-opening-weekend-1156235>> last updated Oct 30, 2018. Accessed: Jan 14, 2021.

Video games are everywhere. They are on mobile phones, on web browsers, on home entertainment consoles, on digital notebooks/tablets and even on smart watches. They have been converted into blockbuster films such as 2018's *Tomb Raider* (Roar Uthaug)—the latest in a line of Hollywood releases—and 2019's *Sonic the Hedgehog* (Jeff Fowler). The point is that video games, and the industry which encapsulates them, represent an incredibly influential form of media and so scrutinising them with a fine tooth comb can yield interesting results.

Video games are at the heart of this thesis. In particular, this thesis strives, from a philosophical standpoint, to understand the furore that video games often generate—be it amongst parents, teachers, media or governments. Video games have often been criticised as engendering bad habits, perhaps even leading to wholesale personality changes such as becoming more violent. There are many ways in which games, their players and developers, have been excoriated and castigated; it would not be parsimonious to examine every single social media post pertaining to this or that game so instead I have elected to allow feminist scholarship—which has a long and storied relationship with the industry—to serve as the primary motivation for this research. Journalistic commentary from online publications such as *The Mary Sue* and *Novara Media* have often been critical of the ways in which women have been portrayed in video games, often pejoratively. The gamergate scandal of 2014-15, itself a loosely organised online harassment campaign conducted by right-wing misogynists, was a response to the work of *Feminist Frequency*, in particular to one of its forerunning members: Anita Sarkeesian, the latter of whom become the focus of abusive criticism in response to her popular series *Women vs Tropes in Video Games* (2012).

This was not restricted to the internet; it attracted mainstream media attention to the point where it culminated with Sarkeesian's appearance on popular satirical US television

show *The Colbert Report*, in late 2014.[3] During air time, the host openly accuses Sarkeesian of all sorts of things, saying, and I quote verbatim: "Let's call this what it is, you and the other femi-nazi's in the gamer world are coming for our balls to snip them off, put them into a little felt purse and take them away so that we have to play your non-violent games, right?" Those who are more informed will know that Colbert is playing a satirical character but the impacts were far from satirical, his words were captured as a soundbite and posted around the internet as a means to generate hate speech. Suffice it to say that the hype surrounding video games has not disappeared in the last 10 years. Typing Anita Sarkeesian's name into any search engine or video hosting website such as *YouTube* will generate numerous results, most of which are still of a polemical, and at times defensive, bent.

So, this thesis wants to understand this outcry from a philosophical perspective. It wants to provide a novel account of how video game could potentially influence their players, the originality of which stems from an oversight in the current empirical literature. The thesis, motivated by feminist scholarship, will begin with attention to the likes of Rea Langton and Caroline West whose research into the implicit speech of pornography dovetails quite nicely with video games. Their adaptation of David Lewis' notion of conversational score will be a holistic umbrella under which much of this thesis strives. Change to conversational score, itself a way of measuring large-scale changes to the norms and values present in our socio-cultural milieu, is accomplished via presuppositions introduced as common knowledge. How it is that certain presuppositions can be said to obtain will be delimited by a context-sensitive look at a theory of immersion, itself corresponding to a sense of embodied presence within the game world in question. The precise phenomenological machinery that underpins presence, the

[3] Available at: <<https://www.youtube.com/watch?v=9L_Wmeg7OTU>> Last accessed: Aug 26, 2022

experiential facets of embodied subjectivity and how they relate to and modify video game play, will become a crucial element in understanding how one could become susceptible to implicit speech (and therefore presuppose things) in a way which obviates the detractions of scholars such as Derek Matravers or R. M. Sainsbury, both of whom argue in different ways that such presuppositions could not pose any threat.

In particular, Luna Dolezal's account of tele-presence and how it is established will be a fecund basis from which to draw insights about bodily transparency, corporeal schema and the acting self—all of which will feature in a theory of immersion which refines the player's relation with the avatar/screen space of the game. A player, thusly immersed, will be shown to be open to whole new field of affordances in the Gibsonian sense. These new affordances, these new possibilities for action which are unlocked once a state of authentic embodied presence within the gameworld has been obtained (via what I will term avatarial prosthesis), not only allow us to make sense of certain presuppositions but also alter the presuppositional landscape available to us, effectively altering one's cognitive orientation in a way which tracks changes to conversational score.

Naturally, it must be openly acknowledged at this juncture, the results of this thesis will only be *pro tanto*. I will not be able to provide any guarantees as to whether or not individual players will be affected in such a way. The influence that media, of any kind, exerts will vary from person to person. I also will not be able to provide an exhaustive or definitive account. There are many theories on how media can influence their audience and this thesis will not defeat them, nor will it necessarily provide a stronger alternative. Instead, it will shed light on an overlooked perspective, attention to which will open new directions for research within the empirical sphere.

So then, let us begin by looking at video games and the reactions which they have been known to engender in the wider community.

CHAPTER 1 — Thus Spake…

Video games are a very popular form of entertainment but they have never been entirely without controversy. Social outcry surrounding the content of a video game and the influence that it has on its audience (usually younger or more impressionable minds) is quite common. Whether it be parents, schools, religions or governments, it is undeniable that video games have been subjected to a lot criticism—sometimes even being banned for content that is deemed to be objectionable or otherwise inappropriate for public consumption. This latter point is important because it is not usually the video games themselves (in their capacity as audio-visual games) that are the locus of concern but rather the content which they portray to the consumer. Oft repeated concerns about Rockstar's *Grand Theft Auto* franchise are grounded in an objection to explicit use of graphic violence, strong language, drug usage and overtly sexual content as opposed to, for instance, the fact that it is a virtual environment. These concerns are not necessarily unwarranted. It is perfectly reasonable for, say, a parent to have reservations about exposing their children to such games especially in their early adolescence which is when many teenagers begin to consume such games irrespective of any age-restricted content warnings. These concerns are also not new from a historical perspective. Penny dreadfuls, comic books and video nasty are just some examples of media which faced the same scrutiny which video games now face.

However, it is also important to note that concerns about the potentially pernicious effects of video game consumption are not based solely on emotive responses to their content. Often social outcry regarding games stems from journalistic coverage of tragic events such as the Sandy Hook Elementary School shooting on December 14, 2012. For instance, it was reported that when police scoured the young shooter’s home, they found him to be in

possession of action/fighting games from franchises such as *Call of Duty*, *Dead or Alive* and *Grand Theft Auto*. Due to the violent nature of these games, and the violent nature of the school shooting, it is not entirely unreasonable that concerned members of the public might want to know whether or not there is a connection. Specifically, whether or not the consumption of these video games can lead to disasters such as the aforementioned (and conversely whether limiting their consumption could therefore prevent future tragedies). Important as these concerns all are, I would like to make clear that they are not the focus of this thesis—not in any particular fashion. I am not concerned with determining exactly what effects video games have on their audience because this is inevitably a broad question with a broad answer. Rather, my concerns are narrower in scope. I am interested in arguing for a potential mechanism by which video games *can* be said to influence consumers under certain conditions. This mechanism is by no means exhaustive, nor does it defeat other accounts (video games have been argued to influence people in a number of ways) but it is original. Current empirical research has overlooked this particular aspect of the literature which opens a brand new account which in and of itself may prove useful for others to analyse.

Do violent video games make people violent? Do sexist video games make people sexist? I do not know. Do video games have any influence over the player at all and if so, is there an original perspective on this matter? Yes, this I will aim to prove. My project is therefore not an ethical one. I will not be arguing that video games are a positive or negative force in society. I will not be arguing that their content is objectionable or wrong. I will not be advocating for or against video games. Instead, I will be attending to video games in their capacities as virtual environments and drawing my conclusions along those neutral lines. If I do touch upon the aforementioned concerns, which are inevitable to some degree, then it will be within the framework of a phenomenological project. If I am to look at sexist video games

for instance, it will be to investigate, from an embodied, lived perspective, some of the mechanisms involved in being exposed to/immersed in said virtual environment. That being said, in order to keep the thesis grounded and relevant, I will be touching upon feminist literature purely because the overlooked aspect of the empirical literature which I have identified exists in relation to feminist scholarship. It is also salient to review said scholarship because it contains foundational insights which, from a methodological perspective, both motivated and guided this thesis towards its conclusion. Therefore, despite my attempt at neutrality, this thesis owes much to said research.

So, where do we begin? I feel that it is important to show beyond a shadow of a doubt that this thesis is in fact addressing a real concern. It is one thing to claim that parents, teachers, politicians (and so forth) have a problem with video games and quite another to claim that there may in fact be a problem. This brings me back to feminist literature. If we have to start somewhere, let us look at the history of debate concerning, broadly speaking, what video games say to their audience and whether or not exposure to such speech engenders sexist beliefs/behaviours. This will not only reveal the scope of the concern but since my thesis emerges from this theoretical scaffolding, it seems pertinent to use it as evidence that the social outcry is a very real and ongoing concern. As always, there are those who believe that such a concern is problematic and those who do not. I will review both sides because doing so still accomplishes the goal of showing how serious this debate is. In the case of the former, I will draw from scholars such as Rea Langton and Caroline West. In the case of the latter, I will look at scholars such as Derek Matravers and R. M. Sainsbury. I have chosen these scholars because they look at the issue from the perspective of speech (more precisely, propositions). I have chosen to focus on speech not because it is necessary to do so but rather

because it is a simple segue into looking at *what it is like to play a video game*, which itself is a foundational insight for my later forays into phenomenological research.

§ Video Games That Talk — I Propose a Proposition

Trying to discuss what it is that video games say is perhaps somewhat vague without further elaboration on what is meant by 'saying' in this context. The most natural way to understand 'saying' is to interpret it as communicating meaning. When one person says something to another, they are conveying information to said person. Similarly, if a video game (VG) is saying anything to the player, then it is communicating meaningful information to said player. Speech in this sense is often considered by philosophers to contain, or be expressible as, propositions—logical units of meaning captured by language. If one wishes to explore the notion that said speech can influence the player then one might look at a notion of propositional assent, arguing that treating certain propositions as true beyond the scope of the game counts as a kind of evidence of export; itself emblematic of a kind of influence having taken place.

Throughout the course of his article, 'Fictional Assent and the (So-called) "Puzzle of Imaginative Resistance," Derek Matravers introduces the notion of fictional assent—an event wherein a person will treat certain propositions within a fiction as true as part of a kind of pro-attitude towards engaging imaginatively with the fiction. This is contrasted against imaginative resistance; wherein fictional assent is withheld perhaps due to impossibility or unwillingness. Let us consider this from the perspective of video games. We might play a video game in which

a blue hedgehog can run faster than the speed of sound.[4] We are well aware that, in non-fictional contexts, hedgehogs do not wear red sneakers and certainly cannot run faster than the speed of sound but this background knowledge does not seem to hinder us from accepting that, as far as the world of the game is concerned, there is a hedgehog with such qualities. This kind of acceptance, lacking in any kind of imaginative resistance (i.e., not hampering our ability to imagine such), can be understood as fictionally assenting to a proposition(s) which the game conveys. When considering the object of assent in such cases, propositions are a natural candidate. In the case of our previous example, we could maintain that in engaging with the VG a subject encounters information that can be captured by the proposition: *that there is a blue hedgehog who can run faster than the speed of sound* and to this, one grants their assent. Essentially, what one is doing here is treating the proposition as though it is true as far as the game is concerned, suspending any disbelief that the content of the proposition may engender. As mentioned previously, Matravers defines this relation as a kind of pro-attitude which is part of an imaginative project. In his words (particularly regarding, but not limited to, written fiction):

> In reading a fiction, a reader engages in an imaginative project. Within this imaginative project there are some propositions to which he assents ("Emma Woodhouse married Mr. Knightley") and some propositions to which he does not assent ("Emma Woodhouse wore an eye patch"). Let us call this pro-attitude to such propositions, a pro-attitude that is part of the imaginative project of reading a fiction, "fictional assent". (Those troubled by the apparent split infinitive are invited to consider "fictionally assent" as a compound verb.) (2003: 91-106)

[4] I am of course referring to Sonic the Hedgehog (1991, Sega).

I feel that Matravers' comments on fictional assent are sufficient for us to understand the kind of thing with which we are dealing. It seems reasonable to suggest that the information which VGs convey can be captured by propositions in a similar manner to written fiction (as outlined by Matravers). Furthermore, it is reasonable to contend that VGs can convey stories and that these stories are fictions to which the notion of fictional assent applies appropriately. Whether one encounters the proposition "Gandalf is a wizard" throughout the course of J. R. R. Tolkien's seminal novels or throughout the course of *Middle-Earth: Shadow of War* (Monolith, IUGO, 2017), its status as fictional does not change, nor does one's ability to treat the meaning conveyed by "Gandalf is a wizard" as propositional (or expressible as such). Therefore, it would seem sensible to claim that, even if video games are not fictions themselves, they can certainly contain them and, in conveying them, can be analysed through a propositional lens in the manner outlined by Matravers.

So then perhaps this is an answer? If we want to build an account of what video games say, and how this speech influences behaviour, we could proceed by highlighting certain propositions and then presenting evidence that assenting to said propositions induces certain changes in behaviour. We could then claim that if in playing video game X, one encounters the proposition "that violence against women is permissible" and grants their assent, we have cause for concern. Or do we? There are three immediate problems here. The first problem is that even without any empirical evidence it seems a mite uncharitable from the outset to suppose that playing a single video game could induce lasting changes to personality. A stronger claim—one which tracks public concern—might be to claim that repeated exposure to sexist video game content has a cultivation effect on the player. Cultivation Theory (Gerbner,

1998: 175-94) holds that long-term exposure to media shapes how the consumers of media perceive the world and conduct themselves. A cultivation effect as such is a kind of implicit bias towards social reality (such as thinking that the world is more dangerous than it is because of exposure to violence in movies and television). The theory was originally developed to examine television consumption but modern VGs are similar enough for the theory to apply. Both media types convey information using audio-visual data. Both media types employ narrative devices to tell stories which evoke a range of feelings. Both media types are created by an author(s) alongside a production team for the purpose of being consumed by an audience. Ultimately, it does not seem that there is any reason which would prevent one from applying a cultivation model to VGs as well as television. This problem, I would argue, does not pose any objection to the method of examining the propositional content which VGs convey. On the contrary, cultivation effects can be understood as a product of fictionally assenting to certain propositions within the game. The question then becomes, how can one know which propositions are problematic and why ought they to present a particular problem for the player? We will get on to this matter shortly, for now let us look at the second issue with a speech-focused account.

The second problem is that even if the aforementioned picture was the case, it hardly proves that such influence had anything to do with video games. One could just as easily make the claim that said individual's pre-existing prejudices are doing the work, allowing them to import their own pejorative attitudes into the game rather than exporting anything from the game which subsequently alters their behaviour. What is needed is a review of the empirical research surrounding video game exposure and sexism in order to determine whether or not there is any reliable causal data. This is a task which we will undertake shortly but first, let us address the third issue, namely that understanding the speech in fiction and/or VGs as making

claims about the way of the world is not that straightforward, especially not when it comes to exporting those claims in any sincere sense. Tamar Gender in *The Puzzle of Imaginative Resistance* (2000) puts the whole matter into perspective so very expertly that I see no reason to paraphrase. She writes:

> But how could describing a fictional world be a way of making claims about the way this world is? The explanation lies in recognizing that like conversation in general, storytelling makes use of standard assumptions about common knowledge and presupposition. […] For a story even to make sense, a great number of things that are held to be true within the fiction must be held to be true outside it, and vice versa. The moral principles that govern the world in question are generally among these, as are the truths of logic, mathematics, and—in most genres—the laws of physics and psychology and even etiquette. When a story explicitly cancels one of these presuppositions … we are generally inclined to take the cancellation as governing only the fictional world … in most cases, the very fact of deviance is sufficient indication that literal export is not the intention. (2000: 75-80)

Gendler is drawing attention to the fact, among other things, that one of the preconditions of engaging with fiction is acceptance of its falsity vis-à-vis the real world. Despite a story's verisimilitude, it is ultimately fictional and we know this from the outset. Therefore, it seems untenable to suggest that export would be the case and in fact, in cases wherein one is asked to imagine something morally opprobrious, one often faces imaginative resistance, thus restricting export. Other scholars have elaborated upon this claim. A person's actual beliefs about the world, for instance what they believe about women beyond the scope of video games, are not a function of fictional assent. Fictionally assenting to X is not, in and of itself, a

mechanism through which sincere beliefs about X are formed. Matravers outlines this rather well. In his essay *Fictional Assent and Imaginative Resistance* (2003: 91-106), he claims that there is little reason for us to fear anything from being asked to fictionally assent to q or being invited to export q from the fiction because simply being prompted to do so by the fiction does not entail that we will do so. If one finds something morally opprobrious then it is highly unlikely that we are going to export this from the fiction. Instead, we are going to resist imagining this to be the case perhaps both in and out of the fiction. As he puts it:

> Why should being invited to export q into our beliefs about the actual world be something to resist? By hypothesis, q is something that we find morally objectionable in the actual world. Hence, there is no chance at all - we have to suppose otherwise my resistance would disappear and there would be nothing to explain - that I am going to export q. Hence, there is no chance at all of q making it into my conceptual repertoire. Why, then, should I resist fictionally assenting to it? It poses no danger to me. [...] Even if I am being asked (which, as I indicated, I doubt) that does not commit me to anything.

Under this picture, it is hard to see how fictionally assenting to something can be problematic—or even how it facilitates anything problematic. For Matravers, the issue dissolves entirely. In encountering pejorative proposition X, one will either find it abhorrent and refuse assent, in which case there is no problem, or they will find it acceptable in which case the problem lay with the kind of person that would ever assent to something so pejorative.

Therefore, thanks to Matravers, it seems as though in order to advance claims that video games can influence behaviour based on what they are saying to the audience, one needs to make rather uncharitable claims. One needs to say that, in certain cases, that which a video game says can make people assent to potentially terrible things to which they would not ordinarily give their assent. Furthermore, the assent must be such that it applies to life beyond the game, effectively changing the shape of their actual beliefs. Naturally, this claim seems quite strong but only because we have yet to make a crucial distinction with regards to speech, namely that not all speech is explicit. Some speech is implicit. Whereas Gendler and Matravers' comments are pertinent regarding explicit speech it is unclear whether or not the same can be said of implicit speech. It makes perfect sense to claim that one would not assent to a morally objectionable claim if said claim is explicitly made but not all communication is direct and certain things can often escape our notice. Sometimes a subject can end up learning something without explicit realisation of this fact. Sometimes what we learn is carried upon presuppositions which are not always easy to decipher. In these scenarios, wherein the propositional content is only conveyed implicitly, challenging or resisting elements of fiction can be more difficult to accomplish by virtue of the simple fact that the object of one's interrogation is obfuscated and subliminal.

§ Video Games That Talk — I Presuppose a Proposition

It is not straightforward to prove that multi-media formats such as VGs carry implicit propositions which are conveyed through things like audio-visual data. A decent way to illuminate this claim is to focus on how certain elements of fiction or play can prompt the

subject to presuppose propositions of their own. Much like how statements carry explicit propositions, presuppositions carry implicit ones. Furthermore, a presupposition cannot exist without assent. Due to the very nature of presupposition, it cannot be random or incoherent, it must have a definite foundation. To presuppose 'that Siobhan will be late to the party because she is of short stature' must have as its foundation some kind of belief about those of short stature and punctuality. It is plausible that one might, subsequent to such a presupposition, enter into reflection and challenge their own implicit biases but the presupposition itself cannot exist without a factor of assent already being extant. Therefore, any apparent disjunction between these two terms in this thesis is merely typological.

Some of the most pertinent insights on this area of study have been made by Rae Langton and Caroline West. In their seminal 1999 essay *Scorekeeping in a Pornographic Language Game*, they demonstrate how this kind of implicit assent can have potentially pernicious effects when it comes to the exportation of belief. I will now borrow from their joint wisdom with reference to their comments on how something can be understood to say things beyond that which is explicitly stated:

> Many philosophers have wanted to draw our attention to a distinction between what is explicitly said, on the one hand, and what is presupposed, or implied, or suggested, on the other. To give a familiar example, if I say ‘The present King of France is bald’, what I explicitly say is that ‘The present King of France is bald’. But when I say ‘The present king of France is bald’, I presuppose, or imply, or suggest, that that there is a present King of France, even though I do not explicitly say so. And if I am sincere, I will say such a thing only if I believe there is a present King of France. If I say ‘Even Jane could pass’, what I presuppose, or imply, or suggest is that Jane is comparatively incompetent; and I will sincerely say so only if I believe she is incompetent. If I

> say, ‘That joke’s as bad as Harry’s’, I presuppose, or imply, or suggest that Harry’s jokes are bad, though I never explicitly say so; and I will sincerely say what I say only if I think that Harry’s jokes are bad. These implications or presuppositions—Jane is incompetent, there is a present King of France, Harry’s jokes are bad—are required in order to make sense, or to make best sense, of what I explicitly say. There would be something wrong with saying ‘The present King of France is bald, and there is no present King of France’; or ‘That joke’s as bad as Harry’s, and Harry’s jokes are pretty good’. There might be different ways of making sense of what is explicitly said, but some ways will be more natural or obvious than others. (1999: 309)

What they are trying to illustrate is the role that the implicit features of speech have during everyday language. Meaning is often conveyed as a function of what we say but not in the exact parlance of what we say. The common utterance “can you pass the salt?” is stated as, and bears the semantic form of, a direct question but in actuality we do not wish to query anyone; rather such an utterance is made as a request and to treat it as a literal question is often to the amusement of the more facetious members of a dinner party. The point is, the utterance’s role in the language of every day speech differs from what is explicitly said.

Not only would our understanding of common conversation be greatly diminished without incorporating these implicit features but also our simple ability to communicate would also be drastically hampered. Human beings convey meaning in ways which are not always direct and obvious. This latter point I will assume to be uncontroversial by this point. What does need further support is the following claims...

1. That implicit features can/do influence behaviour where explicit features can/do not.

2. That the above pertains to video games quite straightforwardly.

[1] will be demonstrated with reference to Langton & West's adaptation of David Lewis' rule of accommodation and Catharine MacKinnon's notion of authority. **[2]** will be demonstrated with reference to the work of Anita Sarkeesian and her seminal analysis of video game tropes.

§ Video Games Exports — Who's Keeping Score?

Earlier I maintained that implicit speech was potentially more pernicious than explicit speech because human learning which occurs as the product of presupposition is more difficult to interrogate and resist.[5] Langton & West have a clear understanding of why this is, which I have chosen to review here not just because of its saliency but because of the ease with which they, like myself, link their insights back to feminist critiques of digital media.[6]

Presuppositions, of any kind, are harder to challenge than outright assertions because they are introduced as given knowledge shared by many individuals, which places a higher cost upon challenging their acceptability. In the words of Langton & West:

> We can note at this point that when something is introduced as a presupposition it may be harder to challenge than something which is asserted outright. A speaker who introduces a proposition as a presupposition thereby suggests that it can be taken for granted: that it is

[5] Gendler thinks that this is mundane. If we categorise learning as explicit or implicit then it follows analytically (from definition) why the contents of one is easier to observe than the other. (2000)

[6] In their case pornography is their area of focus but as we shall see later there are many areas of overlap between porn and video games.

> widely known, a matter of shared belief among the participants in the conversation, which does not need to be asserted outright. Someone who says 'Even Jane could pass' conveys not simply the message that Jane is incompetent, but that everyone knows that Jane is incompetent. A challenger faces the cost of contradicting not simply the speaker, but the general opinion. That is surely part of the reason for presuppositions being more difficult to challenge than assertions. (1999: 311)

When one presupposes, during the course of playing *Braid* (Number None, 2008), that "Tim is the hero and must rescue the Princess," it is done so as though it were self-evident. However, as the game's narrative unfolds, it becomes clear that this assumption rests on implicit biases. Not only does the game avoid explicit statements about Tim's role in the story or his relationship to the alleged Princess but it is revealed later in the game that Tim is in fact a menace who has an unhealthy obsession with an ordinary woman and has been stalking her this whole time as she tries to flee from his pursuit. This clever subversion of expectations is achieved by manipulating pre-existing biases about women as portrayed in VGs. Namely, that they are damsels in distress who need rescuing. Due to the existence of this trope, itself rooted in wider patterns of sexism decried by feminist scholarship (some of which we will review shortly), the presupposition that the woman is helpless is the most natural way of making sense of the gameplay. And yet, like with all good twists, once one revisits the story upon a second playthrough, the signs that the "Princess" was in fact fleeing in fear are patently obvious. The game does nothing to obfuscate them; if one makes such an assumption, then one does so without much assistance.

Rather than challenge the rules of a fiction (in this case a video game) and fly in the face of accepted standards we usually try to accommodate what we encounter, even tacitly.

Langton & West situate this kind of interaction in terms of David Lewis' notion of *rules of accommodation* within language games (1979: 172-187). David Lewis maintains the notion of conversational score, a kind of context-sensitive heuristic which evolves to meet the needs of a conversation in order to preserve its sense and acceptability. It is dynamic in the sense that at any given time:

> [If] something is said which requires a component of conversational score to be a certain way, in order for what is said to be true, or otherwise acceptable; and if that component is not that way beforehand (and if certain further conditions hold); then at that time, that score component changes in the required way, to make what is said true, or otherwise acceptable. (1999: 311)

Langton & West make use of this idea to explain how, in engaging with pornographic material, there is a similar type of scorekeeping wherein the rules of accommodation will evolve to ensure that the material presented is accepted as erotic or arousing. When presented with new stimulus, perhaps the clothing a woman wears or actions that she performs, in the context of pornography it makes best sense to consider this stuff as exciting even though no proposition explicitly states as such. Langton & West further expand upon this:

> While it may not explicitly be said in pornography that women are inferior, or that sexual violence is normal or legitimate, it may be that propositions like these are presupposed by what pornography explicitly says, because they are required for the hearer to make best sense of what is said. (1999: 312-313)

And subsequently, in response to a graphic sex-story from *Hustler* magazine wherein a group of men forcibly have sex with a woman in a bar:

> The story is an example of what is sometimes described in the social science literature as a 'favourable' rape depiction. It is not explicitly said in the story that the female waitress says 'no' when she really means 'yes'; that, despite her protestations to the contrary, she wanted to be raped and dominated all along; that she was there as an object for the men's sexual gratification; that raping a woman is sexy and erotic for man and woman alike. Nevertheless, the conversation—if we can call it that—follows certain patterns of accommodation which render acceptable these things that are not explicitly said. These presuppositions are required in order to make sense of what is explicitly said and illustrated—or at any rate they are required for one way, perhaps the most natural and obvious way, of making sense of it. One needs presuppositions like these to make sense of the way in which the initially reluctant young waitress gives in to immediate ecstasy upon being gang raped. Poor sense could be made of the story if one were to add to it the negations of these presuppositions: if one were to add to the final sentence the conjunct 'and when she said no, she meant no; she never harboured a secret desire to be raped; when she ignored the men, she meant it; she did not want to have sex with them; she was physically hurt, terrorized, and psychologically traumatized as a consequence of what her violators did to her.' (Ibid)

As mentioned previously, these presuppositions generate implicit propositions to which we give our tacit assent.[7] Under Langton & West's account—as adapted from Lewis—we can see

[7] In the case of video games: it would be hard to make best sense of a game if one withheld assent to the proposition 'that the princess wanted or needed saving.' In fact, if one sincerely believed in that proposition's negation then our motivation for playing would be somewhat confusing, though admittedly only if one wished to engage in the fiction which the video game presents. It is more than possible to play a video game simply because its gameplay is fun and challenging.

how the score changes in order to accommodate these implicit propositions, preserving their truth or acceptability. Returning to my earlier points, we can also see how, in accommodating these implicit propositions and assenting to them, one risks legitimising their presence in the fiction (or the conversation as Lewis would have it).

At this juncture, Matravers might forward an objection, claiming that anyone who morally objects to rape would find such material abhorrent and the chances of export would become non-existent. However, as Langton and West showed earlier, it is harder to resist a presupposition as opposed to what is stated explicitly not only because it is more subliminal but also comes with the cost of contradicting general opinion, which is the least parsimonious thing to do. However, Matravers' insights ought not to be dismissed so quickly. To claim that implicit speech is completely beyond the scrutiny of human beings would invite very strong claims akin to brainwashing or indoctrination. As Langton & West note, concerning Lewis' rule of accommodation, it is only a *tendency* of the conversational score to alter in accommodation with new information and not a guarantee. So, one needs to provide some explanation as to why some implicit speech seems harmless whilst other brands are of special concern.

Langton & West approach this matter by arguing that change in score can be sensitive to various contextual elements, one of which is the relative authority of the speaker. The boundaries of the permissible or impermissible change with reference to the relative authority of the persons involved. If two parties say different things, the testimony of said parties can be accepted or silenced on the basis of power relations. This kind of silencing, Langton & West maintain, is continuous with pornography. Women often find themselves unable to alter the scores of a language game in a way which they intend. Women's speech may feature in pornography but only insofar as the script allows—a script which in the majority of cases is written by straight, white, able-bodied, cis-males and designed to serve

the needs of a self-same audience.[8] This kind of thing is also perfectly common *vis-à-vis* video games and it has incited much debate.

In her seminal series of online videos entitled *Tropes vs. Women*, Anita Sarkeesian (representing Feminist Frequency) delivers a critical analysis of various narrative tropes and design choices which exemplify the kind of implicit speech with which we are concerned. In countless video games a female character is kidnapped as part of what Sarkeesian has identified as the damsel in distress trope. The trope "typically makes men the subject of narratives while relegating women to the role of object," reducing female characters, "to a state of helplessness for the benefit of [the male protagonist's] story arc." (Sarkeesian, 2013). Sarkeesian also draws attention to the comparative lack of female body diversity in games and in doing so she reveals just how covert our presuppositions can be. Consider the following example: Wade boots up *Fight Star 4* (Combat Digital, 2015) and scrolls through all the playable characters on the character select screen. The various male characters have a diverse range of body types. Some are slender, some are muscular, some are fat, some are old & hunched, there is a lot of different representation. The female characters on the other hand, all fit the same profile: they are youthful, slender, buxom beauties. There are no muscular women, no fat women and no old-looking[9] women. Wade has seen this pattern time and again within various video games (along with film and television) and due to repeated exposure to an artificial norm, Wade comes to expect that all women should look youthful, slender and attractive. He presupposes an implicit connection between said attributes and female value. This can be expressed as a proposition about *what the ideal woman looks like*.

[8] The strictest of philosophers will argue this to be an ad hominem observation. Perhaps this is so but I will not argue that point here, such an endeavour would be fatuous.

[9] Whereas there are characters who are supposed to be quite advanced in years, they have somehow managed to maintain the youthful countenance of a fashion icon with not a single wrinkle or blemish shown. Their age is invisible because it is not desirable.

Since this proposition is the product of implicit assent, Wade is not equipped to interrogate and resist this assent and instead it makes its way into a collection of norms which exist within Wade's brain.[10] These norms form the set of background assumptions about the world which in turn guide the set of presuppositions that he is likely to make about women in daily life.[11]

One might still object that presuppositions, as general markers of our engagement with fiction, cannot themselves be the site of anything pernicious. During the course of R. M. Sainsbury's paper *Of Course There Are Fictional Characters* (2012), he advances a critique against fictional realism on the grounds that the truth of fictional sentences fails to lend decisive support to realism—despite the appearance that this is the case. Sainsbury uses the notion of presupposition to show that a logical leap has been made by those committed to realism which requires justification. Sainsbury goes on to use common non-fiction examples to argue that it is doubtful that one will be able to accomplish this feat without courting error. He writes:

> We are happy to presuppose whatever needs to be presupposed in a context, yet we need not believe what we presuppose. Often, when fiction is under discussion, we happily presuppose the relevant story. We may not believe it. Yet within the scope of the presupposition, we can distinguish the true from the false, the obvious from the doubtful, the assertible from the unassertible, just as if we were operating without any presupposition, we do not believe. […] The phenomenon is widespread, even in the most sober aspects of our lives. "What colour was the car you saw driving away?", the prosecutor asks the witness. In asking the question, he

[10] Obviously, if the game presented such women coupled with the text "this is what women should look like, all other women are ugly and valueless by comparison," then Matravers would be correct. Wade might balk at such overt claims. However, norms can be established without explicit statement.

[11] It is also worth repeating here that I am not presenting this as the only picture. A cultivation model could also be applied to these circumstances and would doubtlessly yield insightful results.

> presupposes that there was such a car, but the strategy behind the question might be to make it manifest that there was no such car (the witness contradicts herself, or has implausible ignorance of details concerning the supposed car). "Does your friend stay with you at night?", the therapist asks her young patient, who has a fantasy friend. The question presupposes there really is such a friend, though the therapist knows this is not so. (2012, pp 620)

What Sainsbury goes on to argue, through appeal to common language constructions such as these, is that (a) “Once we allow that presuppositions do not need not be believed, many features of our responses to fiction that have been used to motivate realism can be explained in a way that deflates that motivation,” and (b) in the case of fiction, “a single act of presupposition ensures our full engagement” without needing to bring belief into the picture because “the conventional mark of fiction puts us in a position to appreciate that we are not even supposed to believe what we presuppose.” (2012: 621)

The insights pertaining to realism do not really apply to this thesis. There is an all too common kind of video game apologist, mostly hiding in the corners of internet forums, who will defend violence or sexism in video games as harmless on the grounds that it is not real. This is not, in and of itself, illogical. There are many worries that can be dispelled via appeal to their unreality. As children, we learn to dismiss fears about monsters under the bed when we come to properly accept that such monsters are not real. Similarly, if slanderous gossip engenders paranoia about the fidelity of a romantic partner, this anxiety will likely dissolve upon confirmation that it had no basis in reality. Sometimes, appealing to the unreality of a situation is pertinent but in the case of implicit speech, it creates a straw man argument. Implicit speech, and any pernicious effects it may have, is not a function of the ontological status of video game worlds, characters and so forth. If surreal paintings such as Salvador

Dali's *Galatea of the Spheres* can communicate enough meaning to be the subject of coherent debate, then complex multimedia like video games should be able to qualify in the same regard.

However, Sainsbury's observation that "the conventional mark of fiction puts us in a position to appreciate that we are not even supposed to believe what we presuppose" (Ibid) is quite a bit more challenging. It seems to suggest, at the very least, that if video games can be taken to be fiction or that, if one's interactions with them are continuous with fiction-like interactions, then one is predisposed towards not believing what is presupposed. Thus, if video games say anything, they do so only as fictions, or in a fictional sense. However, much as with Matravers' account, Sainsbury's examples rely quite heavily on that which is explicit in fiction whereas our concerns stem from how implicit speech alters this picture. When dealing with the implicit aspects of video games, one does not, as Sainsbury suggests, encounter (explicitly) the conventional mark of fiction. Without this prompt, without this invitation from the fiction, we lose the ability to refuse our consent because it is not explicitly sought. It is assumed; subliminal; covert; implicit.

The question of fictional assent and export has been given much attention from scholars who concern themselves with fiction. Video games have also received much attention from these same scholars and since I have no desire to make a *sui generis* claim for video games it seems sensible to review the notion of fictionality. This will be done in greater detail later on but for now let us at least make a brief outline of the area of interest at hand.

§ Video Games and Fiction — What Say Ye?

The question of whether or not video games can be classified as fictions has been the site of much contentious debate. There is a common intuition to separate video games from other classes of fiction, or to dismiss them from such grouping entirely, on the grounds that they are interactive. As John Richard Sageng (2012) notes:

> When a person is playing *Call of Duty*, she herself can get a good shot, and a satisfying feeling of accomplishment from actually winning a game. She can make mistakes and use clever tactics, as well as gain knowledge about how to play. When playing an MMO, she can buy objects in the game and sometimes even convert the game currency to real world currency. Playing a game seems to be different from reading a book or watching a movie about the same sorts of events. In these latter cases, there are usually not the same direct sorts of accomplishments, learning, or interaction on the part of the audience itself. Something more is going on (2012: 178)

This disparity in patterns of action, and subsequent action reports (i.e., when a player says of their avatar: *I* did such and such) has led many to search for alternative labels to understand video games. Terms such as 'virtual', 'simulated' and 'computer-generated' have always held sway, dovetailing with the intuition of many philosophers that there is something distinct about video games.

Theorists such as Espen Aarseth consider video games to be ontologically different from fictions exactly because they can be acted upon in ways that other media cannot (2005: 59). He indicates a difference between fictions and simulations by pointing out that a dragon in a traditional novel consists "solely of signs" whereas a dragon in a video game is governed by rules and consists of "signs and a dynamic model." Others, such as Jesper Juul, take a more intermediate stance, positioning video games as a hybrid between traditional

representational media and interactive play. He proposes that to play a video game is to "interact with real rules while imagining a fictional world" (2005: 1). Essentially, they are rule-based systems onto which one projects their proscribed imaginings. Granted some might protest that it is not entirely clear why this makes video games a hybrid of any kind, nor why video games cannot be fictions in an ordinary sense in spite of their rule-governed aspect. Rest assured that we will revisit this area of interest later on.

Other scholars are happy to accept that video games are fictional in the traditional sense, though admittedly they would perhaps limit their remit to video games which convey stories.[12] Pretence theorists such as John Searle (1975) or David Lewis (1978) hold that authors of fiction are engaged in the art of pretending that something has been asserted. Gregory Currie (1990) maintains that fictionality has to do with the intentions of the maker. These authorial intentions stand in causal relationship to the audience of said fiction insofar as said audience is encouraged to make-believe X (where X is what is expressed by the fiction) in virtue of recognising the maker's intentions. An Intentionalist like Currie could even include games like *Tetris* in the set [fiction] provided that the aforementioned obtained. For instance, it is possible that the audience recognises that the fiction-maker intends for them to make-believe that there are tetrominoes falling, over which they have control.

Then there are Waltonians such as Grant Tavinor (2009) and Aaron Meskin & Jon Robson (2012) who, through different methods, argue that video games are *walt-fictions* (to borrow a term coined by Stacie Friend (2008: 154)). That is, that video games are fictions insofar as they are artefacts which have the function of serving as props in games of make-

[12] More precisely, the focus would be limited to those video games which contain elements relevant to a conventional speech act theory.

believe (Walton, 1990). Under this definition, video games can quite easily be considered as fictions.

Whether it is the case that video games are fictions themselves or whether they simply contain fictions, the fact remains that there is a relationship between video games and fictions, one which is salient enough that, if video games can be said to say anything, one might object that they only do so as fictions. Alternatively, if one thinks video games merely contain fictions then one might argue that the scope of what video games say is limited by that which is conveyed by the fictions they contain. If this is the case then the immediate question that springs to mind is: *what do fictions say*? In answering this question, we will likely gain some comprehension as to what is being exported but there is also the matter of how export happens and whether it is sensible.

We already have some comprehension of this matter thanks to Matravers' insights. However, it is worth acknowledging that the question of *what fictions say* and the surrounding literature on export comprises a long and diverse debate. Scholars such as Peter van Inwagen have maintained that the entities described within fiction do in fact exist and talk about them is therefore sensible (*Creatures of Fiction*, 1977). In this context, if a fiction says anything, it says so quite sensibly and the only sense in which export obtains is from one instance of theoretical criticism to another.

In response to this perspective, scholars such as Gregory Currie or Ralph W. Clark have argued for a less literal approach, with the former emphasising pretence/make-believe and the latter treating fictions as a series of imperatives. In either case if fictions say anything they only say things to the imagination. They say things fictionally, that is, what they say is not intended to apply beyond engagement with the fiction and therefore export is either unlikely or is merely part of the game itself. There have been numerous accounts of fiction and

naturally one might wonder whether or not, as far as this thesis is concerned, video game fictions really say anything at all and if they do, whether or not such speech is worthy of special notice.

Even if video games are a separate category from fiction proper, there simply are not enough distinguishing features between video games and fiction to motivate the argument that fictions do not say things implicitly. I certainly cannot think of any counter-argument to the notion that fictions say things implicitly, nor can I think of any principled reason why such a counter-argument could not be provided. Since we have every reason to believe that fictions *can* say things implicitly, it is logical to suppose that Langton & West's insights *vis-á-vis* presupposition still obtain in the case of fiction. Therefore, one must sensibly conclude that the earlier intuition that *video games only say things as fiction* poses no objection to this thesis because the problem lay in the features of implicit speech (and the invitation of presupposition) as opposed to any feature of video games or fictions respectively. Furthermore, since the previous Wade example serves as an informal template for how export can obtain, and since a video game's being a fiction does not invalidate this, we still have motive to flesh out a theory of export based on the implicit speech of video games.

Let us return to the aforementioned Wade example for a moment. Admittedly it is hypothetical in nature but it is by no means fantastical—it would certainly be uncharitable to consider it *ad hominem*. It is no secret that the video game industry is highly patriarchal. Even though women make up 52% of the proportion of players, this diversity has not reflected historically on the development level with only 22% of video game developers being women as of 2014 (Marijam Didzgalvyte, 2017). It is no surprise that some video games might be classed as objectifying. This concern, as we have already seen, is not new. It has generated controversy in both lay and academic circles. Where the notion of objectification is

concerned, feminist scholars such as Catherine MacKinnon (1993) have argued that an immense cultural emphasis on the physical appearance and sexual features of women underlies a system of objectification by others. A set of cultural standards become codified, normalised, and internalised by women, leading to instances of what has been called self-objectification (Frederickson & Roberts, 1997). Alterations to conversational score through implicit speech are a way of understanding this objectification and the silencing it produces. Langton & West summarise this matter neatly.

> Pornography, on the present suggestion, works in surreptitious ways by altering presuppositions, not by offering explicit political argument. It is speech that says things and—given its authority—does things. Women's utterances are made to count as the kind of move that is consistent with presuppositions about women, presuppositions established by pornography as a component of an on-going conversational score. In sexual conversations pervaded by such presuppositions, pornography prevents women from making the moves they intend to make. Pornography makes moves which subordinate and silence women, moves which women, as subordinate and silent, cannot then adequately challenge. Our suggestion as to how pornography can change conversational score in life, notwithstanding its often merely implicit content, and notwithstanding its status as fiction, might seem over-simple. […] Presuppositions are introduced by pornography, authors innocently or otherwise fail adequately to indicate the line between fiction and background, readers innocently or otherwise take fiction for background, and accordingly come to believe certain rape myths. Women, as participants in conversations where rape myths are presupposed as a component of conversational score, are silenced and subordinated. The process, thus described, makes pornography seem continuous enough with other speech. (1999: 16)

This is not without empirical basis. The issue may be one of implicit speech but the matter has been investigated scientifically. Recent research "has provided direct evidence that a focus on the physical aspects of women by others causes women to be perceived like, and act like, objects lacking mind." (Heflick & Goldenberg, 2014). This self-imposed process of objectification has been argued to have very real and deleterious psychological effects such as the impairment of cognitive performance, increased negative affectation, restricted eating and diminished sexual enjoyment (Moradi & Huang, 2008). Further neurological research has even demonstrated that, under certain conditions,[13] subject neural responses are consistent with attributing women with non-human object qualities (Haslam, 2006). Building on this, and on research concerning the perception of morality and warmth, Leach, Ellemers, & Barreto (2007) in addition to Heflick et al. (2011) have demonstrated that "focusing on a woman's physical appearance, in a video or still image, reduces her perceived competence, warmth, and morality. This effect was replicated across female targets of varying attractiveness, status, familiarity, and race, but not in response to comparable male targets."

Consider the following summary provided by Heflick et al:

> People are less able to recognize images of humans when they are inverted, but this is not true for objects (Reed, Stone, Bozova, & Tanaka, 2003). Bernard et al. (2012) recently illustrated an exception to this finding: Images of sexualized women (i.e., women wearing swimsuits) are recognized equally well when inverted and right side up. This is in contrast to images of men, sexualized or not, and nonsexualized images of women. The authors reasoned that people focus on specific aspects of women's bodies—like they would objects—when women are sexualized,

[13] Such as the ratio of skin showing between face and body.

> which impairs configural processing (i.e., the connection of distinct features to form a coherent whole) and subsequent recognition. (Heflick et al. 2014)

There is an abundance of empirical research into the neuro-scientific reality of the mechanisms behind objectification and understanding this alongside implicit speech is already coherent due to its existing history with feminist scholarship. However, let us dive more deeply into the empirical research centred around the possibility that video games can influence behaviour. I will focus on sexism as opposed to violence because it pairs with the feminist scholarship from which I have drawn hitherto.

§ Video Games and Empiricism — An Overview

The notion of video games having an influence on a player is not without empirical support. There is a wealth of literature which explores potential correlations between video game exposure and sexist beliefs/attitudes. Naturally, the field is divided between multiple perspectives and so it would not be possible to review them all here—nor is such a review an obligation of this thesis. However, a brief overview to provide context, and ultimately motivation, for the outline that I have advanced hitherto seems like a sensible strategy. In the forthcoming paragraphs, I have chosen to review a portion of the literature surrounding this debate. The articles which I have selected were chosen based on the fact that they represent not only a continuous conversation within the field, but also exemplify the current state of the empirical literature, as evidenced by a comprehensive meta-analysis which includes them as members. Many of the studies mentioned henceforth refer to one another, building upon the

studies which came before and ultimately culminating in a comprehensive meta-analysis of the field. Said articles are therefore both relevant and useful to overview at this juncture. This review is mostly chronological in structure because that felt most appropriate considering the ongoing nature of the debate. However, the last article reviewed breaks from this pattern due to the fact that it relates to this thesis directly and, as will be shown, has been overlooked by the aforementioned compilation of empirical studies.

Firstly, let it be acknowledged that certain studies cast doubt upon the notion that video games have a negative influence on behaviour. A 2015 longitudinal study by Breuer et al. enlisted a cohort of over 50,000 students (aged 14+) in order to assess the relationship between video game use and sexist attitudes via cultivation effects. As Gerbner (1998: 175-194) observes, cultivation theory posits that long-term exposure to media content can affect the perception of social realities in a way which is complemented by personal beliefs and attitudes. Despite controlling for various covariates (such as gender, race and age) over a 3-year period, the study found no evidence for a cultivation effect on sexist attitudes (in so far as sexist attitudes are measured by general belief reports about gender roles in society). However, the authors acknowledge that there are some limitations to the study. Firstly, the study did not include members below the age of 14, which may well entail that the most impressionable group of gamers was excluded. Secondly, since gamers consume a vast array of different types of games, it is hard to generalise the results of the study even given the sample size. Thirdly, with regard to using cultivation theory as a model, since the philosophical status of video games is contested—i.e., since an alleged 'video game reality' against which one might contrast alleged 'social realities' is yet to be formalised—it is difficult to draw any uniformity in how individual perceptions of social realities are affected by video games. Finally, this study focused on general beliefs about gender roles but these are not the only sort of

sexist beliefs that someone might have. Sexist beliefs can also pertain to things such as body image, sexual harassment or rape myth acceptance and therefore new metrics need to be included to track these alternative measures.

A 2016 study, devised by Fox and Potocki, improved upon the previous study by examining video games alongside some additional measures of sexism, such as hostile sexism and rape myth acceptance. Individuals were asked to complete a survey, the items of which were tailored so as to measure lifetime video game consumption (on average) alongside variables such as aggression, hostile sexism and rape-myth acceptance with recourse to a 5-point scale questionnaire. Though their findings cannot be interpreted causally, they found a correlative link between those who played video games consistently throughout their lives and the aforementioned variables. Admittedly this study has limitations, the two most prominent of which are limitations in participant sample size (n = 351) and inability to pre-test participants for the aforementioned variables. The study also is not particularly well-designed, failing to control for a host of outcomes which might have influenced outcomes (such as gender, age, race, religiosity and so forth) and displaying overreliance on self-report data. However, as the authors themselves acknowledge, this study was intended to be a general investigation into video game consumption and therefore the associative data which it presents should be treated as a platform for further research. One way or another, it suggests that there is at least some empirical evidence for a link between video game exposure and sexism.

The aforementioned study may have analysed a broader range of sexism measures but its low sample size leaves a lot to be desired. A 2017 cross-sectional study undertaken by Begue et al. examined the relationship between video game exposure and sexism in a more representative sample (13520 participants). Using a multivariate model, the aforementioned

association was measured alongside two other well-studied sources of sexism: television exposure and religiosity. Controlling for gender and socioeconomic level—as measured by the education level of the participants' fathers—French youths aged 11-19 filled out a self-report survey measuring the among of hours on average they spent watching television, playing video games and also how many hours they spent attending religious services/how important they felt religious practice or beliefs were in a person's life. Based on the results, the authors found a significant link between video game exposure and sexism which existed irrespective of gender, age, socioeconomic status and religion. Most importantly, this link was notably more prevalent than in cases of similar television exposure, leading the authors to speculate—with reference to Poleman et al. (2008)—that people were "more influenced by the content of a scene where they were actively playing themselves the game compared to a condition in which they merely passively watched the screen with the same contents." (2017: 5)

The authors acknowledge the limitations of their study, a large one of which fetters all studies of a cross-sectional nature, namely that said studies are unable to find definite evidence for a causal link. The authors admit that "it may be that individuals with sexist orientations spend more time playing video games" (Ibid). However, even if the aforementioned were true, it does not exclude the possibility that playing said games encourages sexism. It could be that both outcomes are true, creating a vicious cycle and so one still needs to observe said claims closely. It also homes in on an oft-neglected aspect of video game play which I have touched upon in this thesis, namely *interactivity*. Video games are consumed actively rather than passively. A player is both audience and author, complicit in the story that unfolds. It is interesting, and valuable, to see empirical data which reflects the affective power that participation can have on sexist attitudes.

To further complicate matters, a 2022 meta-analysis by Ferguson et al. reports not only that there is no evidence to suggest a causal link between the aforementioned covariates of video games vs sexism[14] but that effect sizes in studies which have attempted suggest such a link—including reference to the aforementioned studies—are small enough that they are better interpreted as noise. In particular, this meta-analysis casts doubt upon the previous two studies, claiming that their results are not conclusive enough to provide support for the hypothesis that there is a correlation between video games and sexism. In the first instance, Ferguson et al. report that previous studies from Fox et al. do not align with their own existing outcomes, suggesting that differences in design produce different outcomes, which introduces uncertainty from a research perspective. Furthermore, Ferguson et al. claim that non-adherence to best practice, in particular the preregistration of methodology, has a moderating effect on the research as a whole. With regard to the 2017 study by Begue et al., they argue that although said results were statistically significant, said results were ultimately below r = 0.10 which introduces a problematic level of imprecision into the psychological measures used—hence the earlier comparison to noise.

At this juncture, this meta-analysis seems fairly comprehensive but once again, the authors acknowledge that there are limitations to their study, the foremost being that the strength of any meta-analysis is contingent upon the research which it covers. Since the field is quite polarized—and since there is an overall dearth of research into video games vs sexism—it is difficult to determine how representative such a meta-analysis will prove to be as the field evolves. Furthermore, though the results of the meta-analysis report a lack of evidence where a causal link is concerned, it does not exclude the possibility of divergent

[14] It should be noted that their study focuses on sexism/misogyny specifically and, in measuring said variables, only behavioural outcomes relating to aggression towards women and/or misogynistic attitudes are included.

outcomes if the remit of said study were expanded to include different aspects of sexism or different interpretations of sexism/misogyny. However, perhaps the most important oversight of this meta-analysis is that it fails to cover all relevant areas of research. This brings me to a 2018 experimental study designed by LaCroix, Burrows and Blanton to measure the relationship between hostile sexism in males and sexually objectifying games—but not just any sexually objectifying games. In particular, this study focuses on *immersive* sexually objectifying games.

In this often overlooked study,[15] LaCroix et al. assess the relationship between immersive video game play and hostile sexism in males. Relating it somewhat to presence (i.e., a sense of really being there at that perspective), they defined immersion as "the tendency to experience the self as interacting with and within the gaming environment" (2018: 420). A cohort of 200 male undergraduate students partook in variations upon a first-person shooter (FPS) game which was specifically-tailored for the study in question. As a control, the study also subjected certain participants to a fourth game, Namco's *Pacman*. In various iterations of the game, players were tasked with fighting against an opposing military consisting of troops which, visually speaking, fit into one of three categories: a) a male character model dressed in military clothing, b) a female character model dressed in military clothing and c) a female character model dressed in a bikini top and combat trousers. The behaviour of the models was unchanged, as was the player's objectives regarding said models (i.e., defeat them). Subsequent to gameplay, participants were asked to complete a 22-item self-report survey

[15] The only one of its kind to have such a particular focus, overlooked in the sense that very few have referenced it—none of whom write upon the topics discussed here. However, though they are not relevant to this thesis directly, there are studies which have a similar focus. See a 2022 study by Chen, Mao & Liu for an examination of how immersion moderates justified vs non-justified violence in video games. Alternatively, for a theoretical mechanism on how things like immersion/presence influence behaviour relative to prosocial attitudes, see a forthcoming 2023 study by Hui Min Lee and Benjamin J. Li.

based upon the Ambivalent Sexism Inventory (AVI; Glick & Fiske, 1996) with half of the items measuring for hostile sexism on a scale of 0-5.

Ultimately, the results showed that video games, in particular violent ones, can increase hostile sexism towards females if the gameplay itself encourages this—with psychological immersion being a key moderator of this effect—irrespective of whether the female character was presented in a sexual manner. Naturally, this study has limitations to which the authors allude. Firstly, the study would benefit from including more controls in its cohort-base, such as factoring a player's age, gender, ethnicity, socioeconomic level, religion and so forth. Further controls ought also to be applied to the game itself, which lacked a hypersexualised male character to potentially confound results. Secondly, whereas FPS titles are perhaps the most popular on the video game market, they do not represent typical gameplay experience/typical portrayals of females in commercial video games by that same token. A more exhaustive study would benefit from the inclusion of different styles of game and gamer alike. With more data, it may well turn out that the impact of immersion is in fact understated in this study.

Despite the aforementioned limitations, the results of this experimental study remain suggestive of a potential link between immersive video game exposure and sexism. At the very least, this provides a sufficient platform for a philosophical thesis such as this one to visit this line of inquiry with greater scrutiny. In particular, it would benefit the field if a more clear and concise definition of immersion could be provided, one that disentangles it from a lot of similar notions which have not been extricated here such as suspension of disbelief, flow state and presence (to name a few). Furthermore, though it is interesting to know that there is an empirical basis for suggesting that immersion and sexism have a complicated relationship, it would be even more fascinating not simply to know that immersion has such affects but also

how and why this is the case. As such, let us proceed onto the next chapter wherein we will attempt to provide a definition of immersion pursuant to a later chapter in which we will use a phenomenological toolkit to examine a potential mechanism by which immersion influences user belief/behaviour.

CHAPTER 2 — Enter Immersion

Pinning down a precise definition of immersion, which is an elusive phenomenon, is quite difficult but for the purposes of our investigation, this chapter shall pursue an account of immersion with regards to Video Games in particular. There have been numerous accounts of immersion, each granting it special qualities and nuances which only obfuscate the character of this phenomenon. However, it is important to note that in the quest for definition we are not starting from scratch. We seem to understand the use of statements involving an experience of immersion on an intuitive level. Indeed, when someone reports their immersion or describes something as immersive, we understand the general point of such an utterance even if precise definition eludes us. There seems to be general consensus surrounding this term and so we at least know the vague direction in which we should start looking if seeking a more concrete understanding. Therefore, let us start by assuming that general consensus about immersion is sensible, that people are on to something when they report their experiences, and see what we can learn.

So, what kind of things do people report of immersion? What are these common intuitions/scenarios that we are going to use as our springboard? The first thing to maintain is that immersion seems to be an enjoyable experience. Reports of immersion are usually made within the context of an activity which was entertaining. When people claim to have gotten lost in a story, or that they were completely absorbed in the game, said people are not referring to how perishingly bored they were. Monotonous, tiresome activities do not seem to prompt reports of immersion. People do not speak excitedly about their chores, nor gush about the sheer tedium of queuing for hours. Immersion clearly has an element of enjoyment.

Naturally, enjoyment alone is not sufficient because not all enjoyable activities are reported to be immersive. Immersion also seems to involve a kind of fixation on the activity in question. Only when a game sufficiently captures our attention such that we cannot wrest ourselves away from it (much to the chagrin of proverbial parents or partners) do we describe it as immersive. If one's mind wanders it is probably because one's immersion has been shattered. This may well be because the activity in question ceases to be enjoyable but it does so in such a way that our concentration falters. Thus, immersion is not merely enjoyable but also involves a kind of focus; a kind of involvement. As we will see later, this links with a phenomenological account of the body as something which is always postured towards its tasks—directed at a world.

Naturally, the aforementioned characteristics are not sufficient. Many enjoyable activities involve a kind of concentration or focus but, as we will come to see, there are many phenomenal states for which the aforementioned two things are preconditions, not simply immersion. Some might note that reports of immersion seem to emerge from contexts which deal with the Arts, or other aesthetically-rich experiences/media. However, not all such contexts provoke these reports. As enjoyable as a painting might be; as focused as our attention might be upon the sculpture or tapestry, it is rare (though not impossible) to hear such things reported as immersive. However, what is interesting is that it is not uncommon to hear art galleries or amphitheatres described in such a fashion. It is also very common to hear films and, yes, video games described in such a manner. The question now becomes, in what way are the latter two artforms different to paintings, sculptures and songs (etc) whilst also bearing similarity with things like galleries or theatres.

The answer is quite simple. Films and video games—as mediums which convey narrative via the use of a real or virtual camera—operate upon the conceit that the audience has a perspective from within the represented world. One feels as though they are there at the location of the story, almost as though *inside* the game in a way for which most paintings or sculptures do not allow. This is not only consistent with art galleries or theatres, which one is quite literally inside, but is also consistent with more traditional usages of the term immersion. To be immersed is quite literally to be placed within or submerged into something. If one is immersed in a body of water, then there is a sense in which one is inside the water. Similarly, to be immersed in a gallery is to be inside it and one might say that to be immersed in a game is also to feel this way. Therefore, in addition to enjoyment, attention and a certain aesthetic component, immersion seems to demand that there is a world in which one is immersed. A world in which, as we will come to see, one is present.

The aforementioned examples all involve *reports* of immersion but said reports are not the only evidence of immersion, especially where video games are concerned. It is quite intuitive, when playing a video game, to count it as immersive if it engages our motor-routines in such a way that our natural reflexes have, so to speak, been transported to the game. If one swerves left and right whilst navigating tight bends in a racing game, or cranes one's neck to see over the trenches in an army shooting game, then people can be considered to be lost in the game. The extent to which this happens during play will be examined later but it is quite remarkable to note that sometimes, when one is especially absorbed in the game, one's own body can become an obstacle relative to the game. I recount an example of my own wherein, during the course of playing *Legend of Zelda: Skyward Sword* (Nintendo, 2011), I was swinging the Wii motion-controller around, frantically trying to strike a difficult enemy with my sword. At one point, the arc of my attack made it such that my forearm was brought in front of my

face, thus obscuring my vision of an incoming attack. Instead of moving my arm, my initial instinct was to peer over it, as though it were not my body at all but merely an obstruction blocking my sight. I quickly came to my senses of course but the point is that shifts in embodied agency generate incisive talking points for immersion. Therefore, as we will explore in depth later, immersion is very much an embodied experience which makes it methodologically salient to subject it to phenomenological scrutiny.

We could continue listing intuitive examples *ad nauseam* but it is one thing for an idea to be sensible and quite another for it to have the backing of rigorous research. Therefore, let us dive into the history of the debate on immersion and try to properly isolate the phenomenon about which we are talking.

§ Method(ology) In the Madness

There have been a number of theoretical anchors to which immersion has been attached in the hopes of shedding light on this most elusive phenomenon, but they have been unsatisfactory and one of the goals of this chapter will be to demonstrate exactly why this is the case. Ultimately, I will use this chapter to argue that there are many distinct mental states which have been erroneously conflated. I will then conclude by selecting an ideal candidate from among those examined, marrying it to an account of immersion grounded in technological design practices. This I believe to be a powerful strategy because it allows to examine immersive apparatuses directly, dovetailing with video games and VR, and also

centralising a concrete, phenomenal understanding of the body—thus allowing the strength of this account to borrow from the strength of the phenomenology upon which it rests.

The four accounts which have either been used to define immersion, replace immersion, circumvent immersion, play a similar role to immersion or otherwise serve as conditions for immersion are as follows…

1. Suspension of disbelief
2. The Magic Circle.
3. Flow state
4. Presence.

It is worth noting that I will not necessarily be formulating objections to the above-listed things. **[1]** and **[2]** will admittedly be treated with a greater degree of criticism than will **[3]** and **[4]** but all of the above will provide valuable insights into an analysis of video games and indeed it should be acknowledged that I am not trying to claim that the above-listed things do not play any role in video game play, rather I am only trying to disentangle them from immersion so that I can show that a rather peculiar phenomenological trick occurs when we play video games (something which will eventually link us back to Langton & West's insights about implicit speech and presupposition). Of all the aforementioned, **[4]** is the only one which will not be dismissed to some extent and which I will incorporate into the main body of my own work thereafter, selecting it as the best candidate to which I previously alluded. Following this, I will present an account of immersion which sees it as an objective

property of technological systems rather than a facet of subjective experience. For now, let us dispense with the preambles and proceed with number **[1]**.

§ Suspend Disbelief or Disbelieve Suspension?

The first notion I shall reject is that a suspension of disbelief serves as a sufficient condition for immersion. The term itself was coined by poet and aesthetic philosopher Samuel Taylor Coleridge. He maintains, in his *Biographica Literaria* (1817/1891), that the supernatural, or romantic, elements of his work be infused with “a semblance of truth sufficient to procure for these shadows of imagination that willing suspension of disbelief […] which constitutes poetic faith” (1891: 145). Though this was the first time such a phrase was expressed, some notion of this phenomenon was arguably understood as far back as Ancient Rome, as evinced by the playwright Horace, whose general remarks on audience recognition demonstrates a certain knowledge of it in his *Ars Poetica*. Since then, many scholars have defended the use of this phrase. Steven Meyer has argued that the "willing suspension of disbelief is an intermediate state where one puts on hold the belief that the situation is not real" (2005). Douglas William Brown analyses suspension of disbelief from a literary lens, using Samuel Taylor Coleridge's famous introduction to *Kubla Khan* to show that as an audience we desire to suspend our disbelief in order to place ourselves "in the perfect frame of mind for the reception of each poem" (2012: 58). A whole history of scholarship has commented on this topic but the common thread is that there is a critical faculty which must be suspended if one is to properly engage with the material in question.

There is plenty of reason to accept that something akin to this occurs during our engagement with fiction. Indeed, it is perfectly germane to suggest that when one encounters propositional content regarding the ontological status of goblins one clearly does not form any belief in the existence of goblins. One might not be explicitly critical of any propositions pertaining to goblins during their engagement with the fiction—in fact openly and consciously denying elements of a fiction would likely violate the terms of the imaginative project in which one is engaging and ruin the experience—but nevertheless the patterns of behaviour/action which a rational agent exhibits subsequent to their engagement with the fiction are sufficient to determine that no such belief has been formed which in turn leads one to believe that something akin to a suspension of disbelief has transpired.

Prima facie this seems reasonable but peer beneath the surface and it seems as though there is some explanatory information missing regarding what is going on exactly. It seems as though we are being expected to stop doing something which is counter-intuitive to what it is like to play a video game. When I boot up a video game and get ready to play, I do not notice any resistance. I do not feel as though I am in a critical state of mind so why is it sensible to assert that I must suspend a critical faculty?[16] Surely play is not a critical activity at all but a creative one. Surely suspending criticism in order to remain engaged is what we do in cases where a story fails to hold our attention as opposed to being the default attitude. Author J. R. R. Tolkien expresses a similar view in his essay *On Fairy-Stories* (1947) wherein he introduces the paradigm of secondary belief based on inner consistency of reality. Tolkien claims that, in order for narrative coherency, the reader must believe that which they read to

[16] From a phenomenological standpoint: if in analysing the phenomenal character of what it is like to play a video game one does not encounter a critical attribute (that is a property which is said to generate critical-like experiences) then it seems as though the motive for supposing that a critical faculty is present, let alone suspended, is unsound.

be the case within the secondary reality of said fictional universe. He goes on to claim that suspension of disbelief only occurs where the author has failed in assuring the internal consistency of the fictional world.

Another view comes from Sarah Worth, who deftly adapts Coleridge's famous statement on fictional belief in order to propose that what is commonly considered to be a suspension of disbelief is better considered as the activation of belief. She writes:

> When we enter into a fictional world, or let the fictional world enter into our imaginations, we do not "willingly suspend our disbelief." [...] When engaging with fiction, we do not *suspend a critical faculty*, but rather *exercise a creative faculty*. We do not actively suspend disbelief — we *actively create belief*. (2002: 184)

Worth's account is not without its controversy. Some would argue that she misses the point. That Coleridge meant to imply that one suspends judgement but this is not a sound objection because whether we speak of disbelief or judgement, we are still suspending a critical faculty. Another objection would be that actively creating beliefs about fictional entities seems to raise serious questions which complicate the debate.[17] If during the course of travelling the Gerudo Desert in *Legend of Zelda: Breath of the Wild* (Nintendo, 2017) one actively creates the belief that a sandstorm is coming then we are led to wonder why one would not seek shelter from such inhospitable weather. Clearly one does not form any sincere belief about such a sandstorm which is identifiable from one's patterns of action *vis-á-vis* said sandstorm.

[17] Though admittedly this is not the case for scholars such as van Inwagen who would simply maintain that creatures of fiction really do exist as objects of theoretical criticism. As such, any talk about entities of this kind, which is rather common, is perfectly sensible.

So, what is going on? At this juncture, we can return to the insights of R. M. Sainsbury for clarity and support. He would conjecture that, when playing the aforementioned video game, the player presupposes the existence of said sandstorm as part of the narrative but this presupposition, being a natural feature of human counterfactual reasoning, does not commit one to any actual belief about the ontology of said sandstorm. Therefore, when Worth writes of actively creating belief, it is possible to interpret her meaning without courting realism.[18]

There are also phenomenological reasons to be cautious of suspension of disbelief. It makes sense to analyse the phenomenological character of an experience that I have, such as exercising a creative faculty. We know what it is like to pretend, or make-believe, that things are the case. We understand how it feels to use our sense of imagination and so starting from this vantage is a natural way of understanding our lived experience pertaining to video games. The converse seems quite confusing. It would suggest that some kind of critical state, one of disbelief or judgement, is the case by default even though it does not feel so to me. Under the suspension account, I am forced to accept, in the absence of the relevant phenomenological indicators, that by default I am disbelieving or casting judgement upon that which I encounter when playing a video game *until* I suspend said critical faculty. This critical attitude acts as a barrier to immersion until the necessary mental gymnastics are performed to dispel it. From a phenomenological perspective, it seems confusing what motivates the notion of a suspension of disbelief account in the first place. It certainly is not something which has been posed to explain a common feeling associated with play because, in my experience, play does not feel like that. In order for a suspension theory to function properly, it must first explain this disparity with our common intuitions about play. The burden rests upon the suspension

[18] As we will see in a later chapter, one could also substitute Worth's account for a Waltonian perspective, choosing to see this creative faculty not as belief but rather make-believe.

theory to show—in a way which is both more parsimonious and accurate—that it is sensible to consider my natural attitude towards video games as the suspension of a critical faculty in spite of it not feeling that way to me. However, even in this case one wonders whether or not the suspension account defeats itself. After all, the kind of "poetic faith" and "perfect frame of mind" to which Coleridge and his successors allude is supposed to preserve common audience attitudes and therefore to provide a defence based on countering the aforementioned intuitions seems self-defeating.

§ It's a Kind of Magic

A popular notion among Ludologists, and any who like to theorise about the scope and limits of play, is that of the 'magic circle'. This notion, due to its focus on play and interactivity, has been applied to the field of video game studies numerous times. This account does not attempt to explain immersion but rather circumvents it altogether by describing play in a manner which renders it unnecessary by virtue of magical boundaries in which play operates.[19]

Inspired by the work of Johan Huizinga (1938/1955), the magic circle was applied quite broadly before becoming a popular metaphor within the study of video games, serving as a tool which delineates the real world from the world of the game. As Huizinga put it, when one plays a game one is "stepping out of real life into a temporary sphere of activity with a

[19] Technically speaking, the notion of a magic circle does not undermine an account of immersion but one has little need to include immersion when discussing how and why it is that one gets so absorbed in play when the magic circle serves as a kind of explanatory quick fix for such scenarios.

disposition all of its own" (1955: 9). In addition to this, Huizinga pointed out that all games have rules and it is the adherence to and maintenance of these rules that structure and sustain the magic circle. Many theorists have responded to the notion of the magic circle with distaste, one of whom was Jacques Ehrmann, who rightly noted that it was fallacious of Huizinga to presuppose and take for granted the existence of reality at the outset. To conceive of reality as a stable entity that can be compared, contrasted and measured against play is question begging. In his words:

> ...it would be methodologically unsound to proceed as if play were a variation, a commentary *on*, an interpretation, or a reproduction *of* reality. To pretend that play is mimesis would suppose the problem solved before it had even been formulated (1968: 33-34).

Gordon Calleja, in his essay *Erasing the Magic Circle*, amplifies upon Ehrmann's point. He argues that reality does not contain play but rather like any other socio-cultural construction, play is an intractable manifestation of reality. Thus, a consideration of video games is a consideration of reality. To assume otherwise without first providing rigorous proof would be to beg the question. (2012: 81)

But at this juncture perhaps it would be studious to point out that Huizinga, at his time of writing, was referring to a class of games which excluded video games. The first popular video game (Pong, 1958) was still unreleased and the genesis of video games as a cultural artefacts was still decades away. However, though Huizinga may not have spoken about video games directly, the notion of the magic circle has been adapted to fit the digital sphere by scholars such as Jesper Juul. In *Half-Real*, Juul draws on the magic circle to describe the

relationship between the game world and the rest of the world. He argues that the "magic circle is quite well defined since a video game only takes place on the screen and using the input devices (mouse, keyboard, controller) rather than in the rest of the world" (2005: 164-165). Naturally, this line of reasoning is susceptible to the same folly as the former but in addition to this Calleja makes an interesting observation about the nature of video games. He writes:

> in physical games the [magic circle] is needed because the game rules are upheld socially. Actions that take place within the marked area of the game, when this exists, are interpreted differently from actions outside that area. In most digital games the distinction is void since the only on-screen space that one can act in is the navigable space of the virtual environment. The stadium stands in *FIFA 09* (EA Sports, 2008) or the space outside the combat area in *Battlefield 1942* (Digital Illusions, 2002) cannot be traversed, they are merely a representational backdrop. The role of the magic circle as a spatial marker is thus redundant when applied to digital games. (2012: 83)

To my mind it is clear that the notion of the magic circle is one which is unnecessary to the project of understanding video games. The notion that there exists, in instances of play, an intangible membrane which separates two distinct worlds, allowing one-way transmission from the fuzzy world of the game into the concrete, steadfast world of reality seems spurious. It is a *sui generis* claim about game worlds which ignores the digital realities of the technologies which sustain them. The magic circle has been insightful in many contexts, but in regard to hard-coded virtual environments which are the basis of demarcating video game play, and which are measurable using scientific metrics, we have no need for artificial boundaries.

§ Go With The Flow

Perhaps the most popular trend surrounding discussions of immersion is to conflate it, or absorb it, into discussions of what is called flow state. Flow theory has yielded many cogent insights into human experience, especially where video games are concerned, but as an unintended by-product of flow theory's success, common intuitions about immersion are no longer being given the philosophical treatment they deserve. It must at this juncture be acknowledged that not all theories of flow are motivated by a desire to capture immersion. A study by Soutter & Hitchens (2016) treats immersion as a very separate phenomenon which itself is considered a necessary condition of flow—a conclusion with which I have no qualms. My intention is to disentangle the literature on flow theory from the literature on immersion and dispel the illusion that one can replace, or account for, the other. Both are valid directions for research but both yield different truths about human experience which must be pursued and clarified separately. The crucial factors which motivate this theoretical bifurcation are not due to the characteristics of flow—which may well overlap with immersion—but are due to the *sufficient conditions* given which do not track common intuitions about immersion. Demonstration of this fact can be found in the video gaming community, in which there are a profusion of titles which are considered to be archetypal examples of immersive games and yet do not fulfil the sufficient conditions of flow.

Originally conceived by Csikszentmihalyi in the 1970s, the concept of flow was created to account for the pleasurable immersion reported by individuals in everyday activities, such as painters becoming lost in their work, ignoring hunger and exhaustion (Sherry, 2004).

Csikszentmihalyi described it as an experience so rewarding that individuals participated in the activity for its own sake (describing it as an autotelic experience) because it "becomes intrinsically rewarding." (1990: 1). Following this principle, a set of sufficient conditions which facilitate the emergence of a subjective experience (which in turn has its own characteristics) were laid down which I have chosen to summarise here. The conditions for entering flow include:

- Perceived challenges, or opportunities for action, that stretch but do not overmatch existing skills;
- Clear proximal goals and immediate feedback about the progress being made.[20]

If we are to trust in the reports of those who play video games; assume quite fairly that they can accurately categorise their own experiences, then it would seem as though many games do not fit with the conditions of flow. One such game is *Dear Esther* (The Chinese Room, Curve Digital, 2012) which is considered by many to be a very immersive experience.[21] The game sets you in the role of an unidentified protagonist who awakens on a deserted island. The sole mechanic of the game is to move at a slow place, wandering around the island and exploring while a tastefully abstract narrative provides occasional texture to the experience. In terms of the first condition: there are no perceived challenges (no puzzles, no time constraints, no risk of failure) and no substantive opportunities for action because, as previously mentioned, the sole interaction of the player is to walk around the island and listen to the unfolding narrative.

[20] (Nakamura, J. 2009: 195)
[21] More on this later.

Coming on to the second condition, this is also largely unfulfilled. There are no proximal goals, nor does the concept of progression hold any sway over the game. Therefore, it becomes clear that neither of the two sufficient conditions for flow have been met. To my mind, this seems to suggest one of three things…

1) People are mistaken, or are misusing language, when it comes to immersion *vis-á-vis Dear Esther.*
2) *Dear Esther* is not a video game.
3) Flow theory and immersion are best considered as separate states.

The former conclusion seems a bit presumptive and quite frankly misses the point of trying to account for a person's experience of immersion.[22] The second also seems presumptive. If *Dear Esther* is not a video game, then I do not know what it is and I do not imagine that a theory espousing such would be very parsimonious. It seems continuous with video games in how I experience it, how I talk about it, how it is designed, marketed and sold and so there seems to be little motivation to abandon the premise that it is. On the other hand, the latter conclusion is not only plausible but still preserves the integrity of flow theory in those cases to which its conceptual lens pertains.

Returning to the Video Game community, it ought to be acknowledged that *Dear Esther* is not an outlier in this case. Many other games which have been described as narrative exploration games or walking simulators share these features and thereby do not meet the criteria for flow; *Dear Esther* is simply an archetypal example of these games both due to its

[22] It would hardly be fair to presume that anyone who reports their immersion is committing an error unless they have the prerequisite amount of Philosophical training. One must also remember that it was a series of individual subjective experiences which made immersion extant in the first place, subsequent to which it became an object of study. Immersion is pretheoretical and irreflective.

popularity and critical success. As such, I feel as though we have sufficient grounds to assert that immersion need not be accounted for by flow. Therefore, let us now address the final (and most salient) trend within the literature: the notion of presence.

§ Clear and Present Danger

The purpose of this section will be to understand the notion of presence. In doing so, we will inevitably touch upon the subject of virtual worlds not simply because video games seem to have strong connections to them but also because if one is present then one must be present *somewhere*. Immersion is, as we will show, something which relates to an embodied experience. Once we have looked at presence *vis-à-vis* virtual reality (VR for short) we will quickly come to see that others have done so as well, with certain scholars identifying a sub-category of presence—known as Tele-presence—which seems to be a perfect fit for understanding a technological medium such as video games. So, what is presence supposed to be? To borrow from the insights of psychologists Murray & Sixsmith (1999), presence can be defined as a sense of *being-here* or *being-there.*

In the sense of presence, "being-there" denotes certain contextual and perspectival features which comprise the phenomenal character of one's embodied environment. To have a sense of being-there is to feel as though one is in some sense present at said environment (if one already is present then said being-there becomes akin to a heightened appreciation or awareness of this fact). Therefore, when playing a video game in which a virtual beach is depicted, to have a sense of presence is tantamount to feeling as though one is, in some sense,

really at a beach listening to the rolling waves and caterwauling gulls. For scholars such as D. J. Chalmers, presence is interchangeable with immersion and indeed he terms an immersive virtual environment as "one that generates perceptual experience of the environment from a perspective within it, giving the user the sense of "being-there": that is, of really being present at that perspective." (2017: 3)

The presumption here I suppose is that presence is in some manner a prerequisite for immersion. This position is preserved in Mel Slater's *Immersion and The Illusion of Presence in Virtual Reality* (2018), the latter of which is a commentary piece which provides a brief review of the history of psychological research *vis-à-vis* VR, immersion and presence. In this paper, Slater uses the terms immersion and presence fairly interchangeably but it is clear that overall, presence is a property belonging to an experiencing subject whereas immersion is a property belonging to a system (i.e., a VR environment) which is used as a metric to quantify over contexts in which the former obtains. For the purposes of this thesis, we will be even more precise and will distinguish between presence, immersion and Immersiveness. *Presence* is the sense of being-there at a perspective. *Immersiveness* is how effectively the technological apparatus in question facilitates this experience. *Immersion* is a relationship which obtains between a user and the system/environment in question—one which shapes their perspective/sense of presence but is distinct from it.

These three distinctions are quite sensible. Let us take the classic example of water. It makes sense to say that a body of water (as a system *sensu stricta*) has a higher degree of Immersiveness than concrete because we can be submerged in it. It also makes sense to separate presence and immersion into two further categories. Immersion in water (i.e., being immersed in a body of water) refers to one's literal, objective situation whilst feeling present

in said body of water refers to one's personal, subjective experience. If one was suffering from the effects of intoxicants or severe tissue damage, one might be literally immersed but unable to feel present in the water. It might be quite figurative to apply this to video games but it is not nonsensical. It seems as though when one reports immersion, one is reporting a state in which they were completely absorbed, or submersed, in the world of the game. We will continue to explore the exact relationships later but at this juncture, the main takeaway is that immersion seems to be a bridge between presence and immersiveness—the former of which belongs to the subject, the latter of which belongs to the object. Seeing immersion as a bridge will be crucial later, for we will show that it is the pathway which joins player psychology to the implicit speech of the gameworld. However, for typological coherency, where possible I will use the term immersion as an umbrella term to cover both Immersiveness and presence as well. None can properly exists without the others and therefore it seems fine to simplify language use in all but the most crucial of cases.

§ May I Have Your Attention?

In a study on Virtual Reality and Anxiety, Stephane Bouchard et al (376-391: 2008) managed to demonstrate that users with anxiety disorders pertaining to certain tangible entities (i.e., phobic anxiety) displayed higher levels of presence in a virtual environment (VE), identified by reports gathered from a questionnaire. 31 users with a snake phobia participated in a study wherein they were treated to the exploration of a virtual environment. Various measures were put in place to reduce the amount to which mitigating factors might influence their experience. For example, only those individuals who were not already proficient in

interactions with VEs were selected and only those who were not hindered by cyber sickness (nausea or disorientation which arises through interaction in a VE) and so forth. During the experiment, users explored a 3D virtual desert environment and in one instance (the one most pertinent to my study) were informed that there would be snakes in the environment. Under these conditions, users' levels of anxiety were triggered by any object of the environment which they deemed to potentially conceal a virtual snake. When asked to rate their anxiety and sense of presence out of 10 while playing (this being separate to the questionnaire) users reported high levels in both measures but also, interestingly enough, the levels reported were always essentially comparable. Subsequent to this, the questionnaire revealed that individuals experienced high levels of immersion during the experiment which was consistent with their behaviour and reports during the experiment.

Let us for a moment treat the results of this experiment as perfectly sound and true. Let us assume, as we have done for our own investigations, that the users' reports of immersion are valid and that the experiment was methodically unproblematic, such that it could solicit said reports in a sound manner and draw inferences which were conducive to their desired and presented outcome. If it is the case that one can explore an environment under these conditions (i.e., wherein one is in a state of heightened anxiety) and yet still sincerely report immersion then it would appear as though the previous observation that enjoyment plays a central role is not always true. Rather in this example it seems to be that one's anxiety directs one's phenomenal attention to those features of the VE which suggest or threaten the object of said anxiety and that such attention, being so intense and affective in character, is the locus of immersion (the bridge between the VE and being-there). Therefore, there is a strong argument to be considered as to whether or not the emotional states or moods (such as anxiety or enjoyment) are merely motivating factors which

contribute to arresting one's phenomenal attention, the latter of which is most pertinent to immersion itself because it is what connects one's sensory, motor and cognitive functions to the gameworld and therefore generates a sense of presence. To arrest one's attention is literally to bring certain features of one's environment into focus, foregrounding them within the intentional architecture of one's phenomenal field. This is worth consideration even if one were to entirely dismiss the aforementioned study because one can arrive at these conclusions without reference to said study. In other words, it is perfectly reasonable to suppose that one becomes immersed whenever one's phenomenal attention is thusly focused that therefore it is a better candidate as a precondition for immersion.

Under this view, immersion is a function of the perspective which a VE engenders and indeed it becomes pertinent to consider immersion as a perspectival interaction with said VE. Considering this and the previous insights, one might claim that if a VE is sufficiently tailored to the phenomenal pattern of one's natural experiences, perhaps even to the dispositional character of one's moods or emotions, then it facilitates one's immersion without need for enjoyment but simply by virtue of replicating the phenomenological features of one's embodied subjectivity—a feat which in turn contains the tacit acceptance of one's environs as valid representations of a world, an acceptance aided by their design. Merleau-Ponty is the obvious choice here and we will visit him at length later but for now let us draw a comparison with Slater who writes: "higher or lower immersion is the extent to which a VR system can support natural sensorimotor contingencies for perception." This point is essentially about body motility but is conveyed in the parlance of psychological nomenclature.

These insights are in harmony with scholar such as David Chalmers who maintains that immersive environments are those which "generate perceptual experience of the

environment from a perspective within it" (2017). It is also consistent with Slater's earlier comments insofar as an aggregate of perspectival features increases immersion such that "a system that supported being able to perceive using the whole body (bending down to look underneath something, reaching out, looking around an object, etc.) would be at a higher level of immersion than one that just afforded looking at a screen."

At this juncture, the objection might arise that, in some subtle fashion, simply having a perspective in a novel environment is enjoyable enough to facilitate a sense of presence because human beings, as embodied agents whose consciousness is spatio-temporally oriented, are responsive (or perhaps attentive) to spatio-temporal environments. Therefore, a sense of enjoyment is still essential to understanding immersion.

I will grant that there is wisdom to this point. Consciousness is intentional; it is always reaching out to the world and grasping at new perceptual horizons. However, this does not change the relationship between immersion and enjoyment. The novelty of being granted a perspective within a new perceptual environment does not therefore entail that enjoyment is a precondition for immersion because being granted a perspective is not isometric with immersion. If we consider the previous example with the snakes, it was not simply being granted a perspective within the VR desert that engendered immersion. Rather immersion only obtained subsequent to further patterns of action/exploration, themselves latent with the full sensorimotor action-possibilities and affordances of embodied subjectivity which ultimately culminated in heightened attention towards certain features of the VR environment.

And yet, there is perhaps slight cause for concern when considering the notion of perspective and its links to immersion which is highlighted by a very strange virtual environment simulated by a team of mathematicians.

§ Keep Your Ego in Check

Davide Castelcecchi described a VR experiment designed by a team of Mathematicians at Cornel University (Segerman et al, 2017). The team managed to mathematically model and simulate a VR environment contingent upon the laws of hyperbolic space—wherein one's movements and shifting points of reference engender outcomes which are not consistent with one's sense of proprioception. The environment involves examples of geodesic deviation and holonomy, both of which are complex features of mathematical geometry but which ultimately boil down to a simple fact: that the environment in question does not behave as one expects it to because space is simulated as curved. An example given which demonstrates the alien nature of this VE involves an individual walking through this hyperbolic space and immediately finding that their point of reference for the floor (that which the user perceived to be the parallel plane over which their arc of motion travels) diverged along a curve. In terms of lived experience, this essentially means that walking forward produces the same effect as spinning on all axes while some features of the environment shrink and others grow.[23]

[23] Do not take the mathematical jargon on faith. If one has in their possession a VR headset and wishes to explore this space themselves, they can find it at this url: "http://h3.hypernom.com/"

Naturally this environment is only a 3D approximation of what is postulated to be a non-Euclidian space but the mathematical details do not matter to us. What matters is that when participants were allowed to explore this perceptually confusing and alienable VR space, they were still able to get a visceral sense of the world around them in a manner which seems consistent with immersion. Actual empirical investigation into the immersive qualities of a space such as this is yet to be published but the assertion that such a space could be immersive is not illogical and is worth considering if only because it will help us to glean yet more information about the nature of VEs and our interactions with them.

However, there is slight cause for concern because one might object that if such an environment could be classed as immersive then it seems to cast doubt on the role of perspective because said environment, whether an approximation or not, is not perspectival in the ordinary sense; does not capture our attention in the ordinary sense. As a phenomenologist, this kind of objection seems very weak. In fact, there is a strong case for asserting that even a VR environment as weird as this one is ordinary in a phenomenological sense which, when compared with an environment like the one in *Dear Esther* (one far closer to our mundane view of a real landscape than that presented in the *Hypernom* project), further reinforces the notion that things like phenomenal attention and perspective are useful tools in understanding immersion exactly because they apply across a broad range of contexts.

The reason that one's phenomenal attention is able to track a VR environment as peculiar as this one is because, in order to be perceived as an environment, it must be perspectival because human consciousness is itself a perspectival means of accessing the world. The Hypernom VR must be perspectival because it seems as though one has a perspective on it, however confusing and strange. Therefore, in order to resolve any

confusion, it might be sensible to re-affirm an earlier point. Namely, that this alleged non-Euclidean VR space is better understood as a Euclidean representation of what would otherwise be a non-Euclidian environment (upon the latter of which it would be truly impossible to have perspective as a human, hence why we do not perceive things like 4-dimensional geometry). One way or another, even strange and distorted environments are perspectival.

§ Immersion and Presence

So, to clarify, presence is a sense of really being at a certain perspective (in video game terms this would mean feeling as though one is present at a location represented by the VR environment). As for immersion, it is a closely connected but ultimately distinct corollary to presence; a bridge between that feeling and the technology in question (which would be Immersive or have a degree of Immersiveness). At this juncture, the objection might arise that there is little reason to introduce such a definition of immersion when theories of presence (as conflated with immersion) seem capable of doing the heavy lifting, philosophically speaking.

The answer to both of these objections stems from a single source but I will address them separately for the sake of clarity. For the more empirical mind, let me return us Slater's review of the psychological literature. Regarding immersion, presence and VR, he writes:

> I defined 'immersion' as an objective property of a system, and higher or lower immersion as the extent to which a VR system can support natural sensorimotor contingencies for perception […] So a system that supported being able to perceive using the whole body (bending down to look underneath something, reaching out, looking around an object, etc.) would be at a higher level of immersion than one that just afforded looking at a screen (for as soon as you turn your head away from the screen you are no longer perceiving the virtual world). (2018: 432)

He then goes on to make a very interesting point:

> In principle, a higher-level immersive system, such as a wide field-of view, high-resolution, stereo, head-tracked, head-mounted display with full real-time motion capture, and auditory and haptic feedback could be used to simulate the experience of a desktop VR system and therefore would be considered at a higher level of immersion. Then, based on this type of classification (which is a partial order), researchers can study how different levels of immersion might correspond to different levels of the illusion of being in the virtual world (the place illusion component of presence), and the extent to which people respond as if events in the virtual world were really happening. (Ibid)

In this paragraph lies a very succinct solution to both the issues levied hitherto. This solution consists in the consideration of what I personally call *phenomenal layers*. Most descriptions of immersion in a virtual environment imply a kind of flatness or one-dimensional nature to the affair. On the contrary, any immersive environment is essentially layered, consisting of multiple strata in which one submerses oneself. To illustrate this in the most concrete manner

possible (where VR is concerned), I shall draw an example from a video game. In *The Lab* (Valve, 2016) players wear a VR headset and gloves in order to explore a laboratory environment populated by portals which transport one to different zones to explore. The headset enables one to look in all directions, emulating a 360-degree visual field whilst the gloves allow one's hands to be rendered into the virtual environment as the appendages with which one interacts. In one corner of the lab, sitting quite innocuously, is a virtual reproduction of classic arcade cabinet complete with joystick. If the player approaches the arcade cabinet and presses the "on" button, the screen will turn on, revealing the start screen for a rail shooter reminiscent of *Galaga* (Namco, 1981). If the player should then reach out with their virtual hand to grasp the joystick, the game will commence and one can take control of the tiny, pixelated space craft; manoeuvring it using the virtual joystick.

This is essentially a video game within a video game and correlates perfectly to Slater's observation that higher-level immersive systems can simulate other, lower-level systems like a desktop VR or in this case, an arcade cabinet game. Notice that this example creates a sharp divide between immersion and presence, the latter of which now shifts to the VR arcade cabinet, thus refurnishing the role of *The Lab* as the implicit background to my experience. Previously, *The Lab* itself was the locus of presence and my living room served as the background but now when I exit the arcade game, wresting my phenomenal attention from its sensory shores, it will not be reality into which I exit but rather *The Lab* from which I must then subsequently exit. To dive deeper through these phenomenal layers in the virtual environment is not to become more present. One either does or does not have a sense of really being there at that perspective. One has the potential to feel a sense of presence (or not) where each phenomenal layer of the virtual environment is concerned. However, as I delve through these phenomenal layers, becoming from my living room by an increasing

number of steps, I do in fact become more immersed. My level of immersion can increase per layer but presence cannot, it is forced to shift or die. This hopefully clarifies that immersion, though closely related, is in fact distinct from presence. It consists not in how I feel but rather in my relationship to my environment. In how embedded I am.

In this picture, one which will inevitably become more common as VR environments come to simulate everyday life, it makes sense to formulate immersion and presence in the way which we have. In the previous example, we can say that the VR system has the following phenomenal layers, the relationship between which is measured by immersion and not presence. This can be true irrespective of exactly how familiar we are with what a virtual environment is because human beings understand meronymic relationships in a pre-theoretical sense. I do not need to know anything specific about water, caves or forests to know that I must first exit the water before I can then exit the cave and finally return to the forest (for instance). This is because certain transitive properties obtain which supervene on the situation in a way which human brains have evolved to recognise. In this sense, the phenomenal layers of a virtual environment are not virtual in nature and therefore immersion, as applied to video games can be applied quite broadly (and we begin to question what role the term virtual is playing—more on this later).

For those who are still not convinced by the notion of phenomenal layers, consider the following thought experiment. Wade enters a garden in which an eccentric craftsman has built a series of sheds, each identical other than the fact that each is smaller than the last and each is built within the confines of a larger shed (*sans* the smallest). What we essentially have is a shed-within-a-shed-within-a-shed-within-a-shed and so forth. Each of these sheds is accessible by a front door which opens at Wade's discretion. Intrigued by this perplexing

construction, Wade enters through the door of the first shed (quite huge in size) and within its interior, standing aloof, is a second smaller shed (though still rather large). Wade wanders over to this second shed and opens the door, stepping inside into a similar environment. Wade repeats this process five times until he finds himself at the centre of this *avant garde* structure, inside a rather cosy little shed. Wade knows that he is in actual fact inside six sheds at once, that logically this could not be otherwise whilst he occupies the centremost shed. He also knows that technically he is still within the confines of the garden. However, his feeling of presence pertains only to the current shed. He feels present in the small shed and not the other sheds or the garden because the smallest shed is that which populates his immediate environs (the affordances of which is the remit of presence). As for immersion however, his level of immersion in this art project continues to deepen with each shed, essentially because each shed is itself immersed inside a larger shed. His feeling of presence is shifting but static. His *degree* of immersion deepens because it does not only describe a feeling. It describes a relationship to his environment.

This is not a stunning observation. As I write these very words, I am sat at my desk which is within the confines of my office, which is within the confines of my home, which is within the confines of my apartment block and so forth. Yet, my feeling of presence is limited to my immediate situation. Presence concerns where I am exactly, not where I am in general. However, the illustrative power of the Wade example stems from the difference of degree. Wade knows that if he wishes to return to the garden, he must first exit the smallest shed into the second smallest and repeat this process a number of times before he is free. There are layers not only in his literal reality but also to his experience and acknowledgement of these strata are the sediment of immersion. That such knowledge is available to Wade is a

straightforward part of embodied subjectivity. The action-possibilities afforded by his environment are a function of his cognitive orientation to said environment.[24]

The same holds of immersion and presence in a VR environment (or indeed of any environment at all). Knowing that immersion describes our relationship to a system with presence standing as a subjective corollary can tell us interesting things about embodied subjectivity. The precise phenomenology of our interactions within technological systems is quite refined and understanding such things is essential if we want to make more than a weak claim about how interacting with immersive technologies such as video games can link meaningfully to the concerns about implicit speech and presupposition. Therefore, let us examine a kind of presence associated with said technologies. Namely: tele-presence. Doing so will, among other things, reveal some key aspects of presence, such as ownership of action and proprioceptive feedback, which have been neglected hitherto.

[24] We will explore this in detail in a later chapter.

CHAPTER 3 — Tele-presence

This chapter will not be concerned with presence itself but rather with a sub-species known as tele-presence. This will be accomplished with reference to the work of Luna Dolezal whose insights regarding telesurgery are particularly salient. The key product of analysing the phenomenology of tele-presence in this manner is that it will equip us with particular interpretations of prosthetic embodiment, motor-intentionality, proprioceptive feedback and the body's dual nature — all of which will have utility when applied to video games. Dolezal's insights are fertile soil for a phenomenological investigation into video game play and therefore paying attention to her work will be very informative. I will begin by outlining Dolezal's definition of tele-presence (with particular focus on a species known as enriched tele-presence) after which I will outline the conditions which must obtain in order to facilitate such a state; a discussion which will centre on proprioception and ownership of action.

At this juncture, I will digress into the works of Edmund Husserl, Maurice Merleau-Ponty and their commentators in order to elucidate concepts which originate from their work. This segue matches the spirit and structure of Dolezal's own work, both of which are crucial to the efficacy of her findings, and therefore it seems fecund to preserve that kind of strategy in my review of her work. Subsequent to this review, I will return to the aforementioned discussion of ownership of action and proprioception with greater force, drawing from empirical evidence to support our newly-enhanced understanding. Finally, I will end by assessing Dolezal's notions of acting and sensory self, both of which will be foundational for the insights of the final chapter wherein we will build a theory of avatarial embodiment which

combines the insights of Merleau-Ponty and James Gibson. This will all be accomplished in a manner which links back to, and is in harmony with, the empirical study of immersion mentioned in chapter one and of course the notion of implicit speech and presupposition.

§ Tele-presence and Virtual Reality

Firstly, what is tele-presence? Put simply: tele-presence is the name given to feelings of presence which relate to a remote environment as opposed to one's literal, immediate environs.[25] Jonathan Steuer has defined tele-presence as the mediated perception of a "temporally or spatially distant real environment" via recourse to some kind of telecommunication technology (1992: 79). Other scholars such as Murray and Sixsmith (1999) and Dreyfus (2000) have chosen to focus on tele-presence for psychological and epistemic reasons but Dolezal limits herself to phenomenology, choosing to link feelings of presence with agency and ownership of action. In particular, she uses the theoretical lens of Husserl and Merleau-Ponty to examine things such as proprioception, motor-intentionality, re-embodiment and intercorporeality in order to elucidate how seamless interaction with remote environments is possible.

At this juncture, the attentive reader might have noticed that Steuer's original definition of tele-presence draws specific attention to distant *real* environments which might make the project of applying this to the VR environments of video games seem a little tenuous. Dolezal also acknowledges this, claiming that VR is "distinct from tele-presence in that it involves the use of three-dimensional computer graphics technology to generate artificial

[25] presence is defined as a feeling of "being there" so tele-presence would be this feeling but applied to environments which are proximally distant to oneself.

environments in which one is immersed" (2009: 208). However, she also acknowledges a core similarity between immersive VR and tele-presence in that the "main aim of both of these technologies is to create a sense of presence, of "being there", in the environment" (Ibid). This observation dovetails nicely with a key note which has been running throughout this thesis, namely the commonality of immersive experience when discussing video games.

Dolezal distinguishes between four different types of tele-presence, only the third of which is relevant to her work and ours. This type, known as enriched tele-presence,[26] is commonly associated with practices such as telesurgery which Dolezal asserts to be one of the most striking and tangible examples—so much so that it aptly demonstrates the quality and characteristics of the aforementioned phenomenological issues. In providing a concise overview of what kind of procedures qualify as telesurgical ones, she draws from the work of van Wynsberghe and Gastmans:

> In most general terms, in a telerobotic procedure, the physician is seated at a surgeon console at a distant site and manipulates remote controls. The joystick or remote control movements are converted into digital signals which travel via the telecommunication network to the robotic system on the patient side. These signals are received by the surgical column and translated from their digital form into movements of the robotic surgical arms within the surgical field (i.e., inserted into the patient). The surgeon oversees these movements through the monitor of the surgeon console which transmits the video of the endoscopic camera, also inserted into the patient. (2008: 1–2)

[26] Circa Dolezal: "involving multisensory feedback, where movements of the user are precise and intentional and, to an extent, mirrored in the remote environment." (2009: 210)

As mentioned previously, Dolezal is interested in resolving the phenomenological queries surrounding the lived body[27] and engagement with correlative technologies. Her chief aim is to analyse tele-presence in this way in order to render the correlative practical, legal and ethical concerns more sensible. This is where I will depart from Dolezal. I will follow her phenomenological analysis just far enough to motivate insights about video games and from there argue that tele-presence, though useful in many regards, does not properly apply to VR interactions.

Returning to the matter of telesurgery, Dolezal turns towards ownership of action. She claims that ownership is crucial not only for a sense of presence to obtain during telesurgery but also for said telesurgery to be successful. She raises the example of *Legal Tender*, the first publicly accessible telerobotic website wherein users, after agreeing to take full responsibility for their actions, could destroy or deface two allegedly real $100 notes. When questioned about the experiment (the purpose of which was to induce a sense of online corporeal risk), most users reported that they did not believe the notes and the experiment were real and hence did not feel as though they were placing themselves under any risk (Dreyfus, 2000. Dolezal, 2009). In this case, the real remote environment was confused by the participants for a virtual environment which was sufficient to raise doubts about ownership of action and therefore assuage any sense of risk. Contrast this with the example of the telesurgeon and, *prima facie*, it appears as though the essential difference is that the surgeon knows that their actions have real consequences and therefore feels a sense of ownership over said actions (which in turn induces a sense of presence). Without ascribing this sense of ownership to the

[27] The body as a living subject inhabiting the world.

telesurgeon, it is also difficult to understand how telesurgical procedures could be successful, let alone ethical. Dolezal writes:

> with the example of telesurgery, it is apparent that concrete physical consequences are fundamental for a successful surgical procedure. It is overwhelmingly pragmatic to ascribe ownership of action to the surgeon performing the operation, since there is a clear causal link between the user and the event, where a successful operation depends on the refined motor skills of a trained and practiced surgeon. However, despite conceptually ascribing ownership of action to the surgeon, phenomenologically it is important to establish whether the surgeon feels as though the actions observed through the visual feedback provided are his or her own; that is, whether a sense of presence, and hence an embodied sense of motor-intentionality in the remote environment, has been established. Indeed, establishing this sense of ownership is not only important for assigning responsibility and culpability, it is generally acknowledged by researchers in the areas of tele-presence and VR that a sense of presence in a remote or virtual environment has a positive effect on task performance. […] Turning now to consider the issues of agency and ownership of action will elucidate a manner in which a qualitative distinction can be made between tele-presence and normal actions, and begin to understand how an action can be felt as "mine" without necessarily having physical proximity. (2009: 217)

Dolezal later argues that the locus of ownership of action rests upon proprioceptive feedback which itself enables the user to transfer said ownership to other bodies (even ones which are mechanical or digital). As she considers it, proprioceptive feedback is "a fundamental element in the experience of agency and ownership of action … the coincidence of proprioceptive sensations to visual feedback of motion[28] is the mechanism that induces a sense of

[28] This is similar to vection, the simulated experience of motion in VR. This will be pertinent later.

ownership" (2009: 219). However, in order for her to reach this point she first directs a lot of energy towards the notions of the lived body; bodily transparency and the corporeal schema, each of which contributes towards her later findings. I do not wish to spend an excessive amount of time defining each of these subjects exhaustively but I will apportion some time to them not only for the sake of rigour and clarity but also because Dolezal herself sees fit to do so.

§ The Lived Body, Level I — Husserl

Dolezal takes a bit of time to rail against the fact that the Cartesian-Lockian model of selfhood has been overprivileged in relation to the development of tele-presence and VR technology. This model conceives of the human agent as a metaphysical entity housed inside a physical substrate which is causally connected to the external world through the body's system of sense organs, allowing mechanistic control as per the laws of the natural sciences. Under this model, all knowledge is essentially representational. As Jeff Malpas puts it, it is as though "each of us was locked in a single, solitary cell and connected to the world beyond by nothing more than a combination of video, audio and other information systems, coupled perhaps with some device for remote manipulation" (2000: 112). This model of course has its flaws for telerobotic practices, which Dolezal herself notes: "the Cartesian-Lockian model is particularly inadequate to account for the embodied experience of the subject exerting physical motive force in order to perform precise and deliberate movements in a distant environment … [as in] the example of telesurgery" (2009: 209) The Cartesian-Lockean model of selfhood erroneously reduces the subject to a central psychic self which is enshrined in a physical substrate. In reality, the subject as a lived body is "composed of its material form and the

intentional and volitional motor-movements that give it meaningful existence" (Dolezal, 2009: 220). Therefore, if one is to accomplish successful re-embodiment, it must include the features with which one's lived body is redolent; it's corporeal schema, transparency and so forth. True re-embodiment would entail a transfer of the aforementioned items, such that "intentional action would induce a transparency of not only the technological interface with which one engages, but also transparency of the body in the remote environment" (Ibid).

This is the beginning of Dolezal setting up her review of the lived body, which itself finds its roots in Husserl's phenomenological canon. She argues that such a notion is crucial to understanding instances of enriched tele-presence. In the example of telesurgery, Dolezal contends that "the user does not relate to the technological interface in a merely representational manner, that is, as a disembodied gaze. In contrast, user interaction involves the body interacting with the remote environment through learned and skilled motor behaviours." As we have already shown to some extent (and as we will expand upon soon), these kinds of skilled motor behaviours are common where video games are concerned, especially where complex VR systems are concerned. In the example of telesurgery, without said skill—itself the product of the sedimentation of habitual routines into one's own body—it is hard to imagine successful procedures taking place.[29] "As a result, the phenomenological understanding of the lived body as investigated by theorists such as Husserl, Merleau-Ponty, and their commentators, is instrumental to understanding how these technologies work and how interaction with them can be successful." (Dolezal, 2009: 212). It is therefore more than sensible for Dolezal to dedicate time to the notion of the lived body and for us to do the same by a similar token.

[29] In fact, it would be hard to call said interactions surgical at all because surgery requires a great deal of skill.

In his posthumously published volume *Ideen II: Phänomenologische Untersuchungen zur Konstitution* (often abbreviated as Ideas 2), Husserl endeavours to elucidate how the body is not merely a "material thing" but rather that which constitutes the "psychophysical subject" (1952/1989: 151). He describes the body as a lived entity, providing several points of departure from other material entities. Dolezal helpfully schematizes these characteristics into four main features of what can be considered as Husserl's theory of embodied subjectivity. These four features can themselves be summarised as follows: *sensation; will; situation* and *perception*. In the case of sensation, Husserl argues that a living entity's unique localisation of sensation constitutes the unity of the body. "Obviously, the Body is also to be seen like just any other thing, but it becomes a *Body* only by incorporating … sensations." (1952/1989: 158-159).[30] Here Husserl means to acknowledge that of course the body is, in the strictest sense, a physical object existing abroad a material universe but at the same time he rejects this notion. Such an object would be mere object, a complex assemblage of atoms, it would not be a body—the latter of which is tied to personhood. Sensation allows us to view the body as a subject rather than an object because whereas sensations are physical, they are also personal. The fact that different parts of the body can experience sensation reveals that the body is not a single atom but rather is extended in space; in being. Furthermore, the body is not merely a physical thing but a purposive thing, latent with potentialities. This brings us on to the second feature, namely *will*.

For Husserl, the body is a living entity the movements of which are not purely mechanistic but rather wilful. There is motive force in the movement of a body, a unique

[30] The italicised text belongs to Husserl.

volitional element which distinguishes it from other material things. For Husserl, the lived body is an object which is spontaneous and free. He writes:

> [The body is] an *organ of the will,* the *one and only Object* which, for the will of my pure Ego, is *moveable immediately and spontaneously* and is a means for producing a mediate spontaneous movement in other things … *Sheer material things are only moveable mechanically and only partake of spontaneous movement in a mediate way*. Only Bodies are immediately, spontaneously ("freely") moveable, and they are so, specifically, by means of the free Ego and its will which belongs to them. (1952/1999: 180)

For Husserl, the lived body has so much more character and vitality to it than is ascribed by the psycho-empirical sciences of the time or indeed as per the Cartesian-Lockian model which classifies the body under the *Cogito* as opposed to Husserl's notion of the *Ich Kann*. For Husserl, consciousness cannot be characterised under the formulation of 'I think that' but rather must, in accounting for the volitional element, be characterised as an 'I can.' "It is in virtue of these free acts that … the Ego has the "faculty" (the "I can") to freely move this Body—i.e., the organ in which it is articulated—and to perceive an external world by means of it." (Ibid)

Not only does Husserl elide what he views as false dichotomies of subject-object/mind-body, he also draws attention to one of the later features which Dolezal identifies as comprising his repertoire on embodied subjectivity, namely perception. For now, let us move on to the notion of what can be considered *situation*. For Husserl, the body is that through which all spatial orientations are to be understood, it is not something to which one is proximally related but rather is itself the foundation of proximal relations. Spatial being is

itself such that all things stand in relations such as nearer or farther; above or below; rightward or leftward (and so forth). Husserl writes:

> [the Body has] the unique distinction of bearing in itself the *zero point* of all these orientations … [it is] always characterised in the mode of the ultimate central here: that is, a here which has no other here outside of itself, in relation to which it would be a "there." It is thus that all things of the surrounding world possess an orientation to the Body, just as, accordingly, all expressions of orientation imply this relation. (1952/1999: 183)

The body, unlike the solipsistic thing implied by the Cartesian-Lockian model, is the centre of the realm of possibility and experience. "I do not have the possibility of distancing myself from my Body, or my Body from me." (1952/1989: 167).

Lastly comes the category of *perception*. Husserl contends that the body is necessarily involved in all acts of perception and furthermore that in certain instances, such as with kinaesthetic touch, the body is implied by said perceptions. The aforementioned proximal relations depend upon one's ability to perceive that which is a *there* to the body's *here*. Perception is intentional, it is always perception of something and always in an inextricable tangle with the world. For instance, when the body makes touch-contact with an object there is a two-way perception of properties, one set belonging to the object and its attributes and the other being a set of cutaneous sensations on my hand which stand in correlative relation to the former. Here body and world reveal each other through an act of perception, making it crucial for Husserl's stance on embodied subjectivity. Filip Mattens has gone into detail about how Husserl's phenomenology, in particular, privileges the sense of touch as "the reality sense." Where vision is concerned, there is no object of vision which, by virtue of its being

sensed visually, reveals the existence of a corresponding visual organ. However, in the case of kinaesthetic touch, it is the case that an object of touch, by virtue of its being sensed kinaesthetically, does reveal the existence of a corresponding kinaesthetic organ because 'to touch' is 'to be touched.' As Mattens puts it, apropos Husserl: "the visual appearance of an object does not go together with a visual appearance of the eye … A stimulation of ocular sensitivity is not "felt" as a stimulation of the eye organ … Even if one holds that such stimulations result in visual appearances, these are not appearances of one's eye; they do not show one's own eyes" in the same manner that stimulations of the touch sense do in part reveal one's own body. For more information, see *Body and Eye: A Matter of Sense and Organ* collected in "The New Yearbook for Phenomenology and Phenomenological Philosophy VIII" (2008, p. 93-125).

At this juncture, Dolezal moves from Husserl's elucidations of the lived body and turns towards Merleau-Ponty to explore how the notion evolves.

§ The Lived Body, Level II — Merleau-Ponty

Following from Husserl, Merleau-Ponty conceives of the body as *Leib*, a living and expressive organism constantly engaged in, and entangled with, its environment. This engagement is irreflective and habitual, based on a sedimentation of motor routines rather than being the product of deliberate movements (as we will see soon). Merleau-Ponty also adopts Husserl's notion of the body as *nullpunkt* (zero-point); of the body as an absolute here which itself does not stand in proximal relation to its environment but rather is the very locus at which proximity is rendered sensible in the first place. It is the 'here' to which all is 'there.' The contextual site of all spatiality. As Merleau-Ponty writes:

> The word "here" applied to my body does not refer to a determinate position in relation to other positions or to external coordinates, but the laying down of the first coordinates, the anchoring of the active body in an object, the situation of the body in the face of its tasks. (1945/2002: 115)

This notion of the body being situated in the face of its tasks is especially worthy of note. Merleau-Ponty maintained that "it is never our objective body that we move, but our phenomenal body" (p. 121). What he means to suggest is that bodily motion, as something which is both intentional and volitional,[31] is not something which we experience in an objective manner as per the observations of the natural sciences. Undeniably it is true that our body is, in a certain sense, a composite of atoms; a physical object which adheres to the laws of physics and so forth. However, though our bodily movements can be reduced to these descriptions, we do not experience said movements in this way. Our movements are experienced in a subjective manner, as something which we do. They are personal, habitual, routine movements which relate contextually to our physical situation. When I engage in any given task which involves the motion of my body I do so without any reflection upon my body as a physical mass. I do not first pilot my body as though it were a fleshy machine only to then engage, almost in a remote sense, with the objects around me. As Dolezal notes: "it is not the case that I find and experience my body first, and then employ it to explore the world. Rather,

[31] Intentional in the sense that it always exists for something. A bodily movement always attends to some feature of the world, is always aiming towards or responding to some aspect of one's spatio-temporal environs. It is contextual rather than being random and solipsistic. Furthermore, it is volitional in the sense that one is the author of one's own bodily movements. I will myself to move, rather than being moved by some phantom puppeteer. Even purely reflex actions belong to me and are part-and-parcel of physiological/somatotonic routines which differentiate me from my peers.

my body and the world are in an inextricable tangle," (2009: 213). Let us elucidate this point with reference to an example which Merleau-Ponty uses, as in a person using a pair of scissors.

> The subject, when put in front of his scissors, needle and familiar tasks, does not need to look for his hands or his fingers, because they are not objects to be discovered in objective space: bones, muscles and nerves, but potentialities already mobilised by the perception of scissors or needle … [The scissors] offer themselves to the subject as poles of action … they delimit a certain situation … which calls for a certain mode of resolution, a certain kind of work. The body is an element in the system of the subject and his world, and the task to be performed elicits the necessary movement from him (1945/1999: 106)

The body is a living, expressive thing which is permanently engaged in some physical situation. It is directed towards possible tasks and is in an ever-changing, dynamic relationship with the objects/people in its vicinity. We see these objects/people, these facets of the world, as presenting us with opportunities for action to which we can then respond without needing to think about it. These physical interactions with objects and with other bodies can be described by the physical laws of science but they cannot be reduced to that description. The body is an object *sensu stricta* but it is also (from our perspective) a living, purposive thing.

§ The Lived Body, Level III — The Transparent Body

At this juncture, we have a satisfactory understanding of the literature from which Dolezal draws when building her notion of the lived body. As mentioned previously, she also adopts the notions of bodily transparency and the corporeal schema, both of which she builds into

her remarks on telesurgery. Let us now look at this notion of transparency. Continuing to draw from Merleau-Ponty's repertoire, Dolezal notes that a central part of Merleau-Ponty's previous insights about the irreflective and immediate manner with which the body engages with its surroundings is that they induce what he refers to as transparency. This notion of transparency is not limited to Merleau-Ponty and Dolezal acknowledges this. She writes:

> From the perspective of the performing subject, Merleau-Ponty and others argue that successful motor-intentionality induces a certain sort of bodily transparency where the body does not explicitly appear in the field of perception when it is intentionally directed to the world. In *L'être et le Néant*, Jean-Paul Sartre (1943/1969) offers the example of writing to illustrate this phenomenological experience of bodily transparency. In the act of writing, he argues, "I do not apprehend my hand …my hand has vanished" (Sartre, 1943/1969: 323). Of course, Sartre does not mean this literally: my hand is still present while writing, and I *know* this, but I know it with a prereflexive type of awareness that does not involve regarding the body in a separative way, as an object of perception. (2009: 214)

Here Dolezal is drawing attention to the role that the body plays in our engagement with the world. The body is that which facilitates seamless interaction with the world; it is that through which the subject is postured towards and relates to their external environment. The body is the lathe and locus of perception, not an object to be perceived. The body, as the site of perception, recedes from attention during the execution of various tasks. Its existence may be implied by those tasks[32] but only as a mute, implicit background unto which all is rendered

[32] Note that as both Husserl and Merleau-Ponty have already asserted, the body is in an inextricable tangle with the world. It is the "here" to which all is "there." Vice versa, if something is "there" then there must be a "here" which renders it as such. This is the school of reasoning which Dolezal adopts when she refers to the body as implied by our tasks but only implicitly, as a kind of background which we infer. It should also be noted that

perceptible. Wherein one's body is functioning in what a clinician might consider a normal or healthy way, one does not need to "perceive his or her own physical structure … it remains the silent, tacit background to projects and interactions in the world." (Dolezal, 2009: 215) Another feature of bodily transparency that Dolezal identifies is evident in acts of volition, wherein a subject does not need to know how their body performs an action in order to commit that action. Volitional movements of the body are, as it were, second nature, requiring no explicit awareness of the body in that particular moment in time. As Husserl puts it, "I execute my '*fiat*,' and my hand moves."

As a result, Dolezal summarises the transparency of the lived body as follows…

> The lived body is not moved in a simply reflective nor mechanical way; for a majority of healthy and able-bodied adults, posture and movement occur without the need for conscious reflection. Therefore, when the lived body is functioning without interruption or distraction due to pain, fatigue, or other body occurrences, it engages with the world—the space and objects in its proximity—in a prereflective, albeit conscious, and immediate manner. (2009: 215)

This transparency of the lived body; the body's tendency to fade into the background in favour of a task at hand, is crucial to understanding Dolezal's stance on telesurgery. It is also crucial in understanding the next aspect of her review, namely the corporeal schema.[33]

§ The Lived Body, Level IV — The Corporeal Schema

these musings are only limited to tactile interactions with the world. The other senses are not so privileged. (Note: see the aforementioned essay by Filip Mattens for more information.)

[33] Sometimes referred to as the 'body schema', including in Dolezal's own work. I have elected simply to use the word corporeal rather that swap back and forth between terms. There will however be instances of citation wherein, whatever choice of term, one inevitably has to make such a swap.

The notion of bodily transparency has touched upon the seemingly automatic way in which one moves one's body. The notion of corporeal schema becomes useful when analysing this automatic aspect of bodily motility. Gallagher and Cole, in discussing this notion of schema, claim that it "can be defined as a system of preconscious, subpersonal processes that play a dynamic role in governing posture and movement" (1998: 131). Furthermore, as Dolezal notes, the schema not only regulates and controls the motility and posture of the body but also "how the body interacts with the objects and environment that constitute its immediate milieu." (2009: 215)

In order to illustrate this point, she makes reference to Merleau-Ponty's famous example of the blind man and his walking stick. Once the blind man's corporeal schema has come to envelop the stick, through a process of habituation and repetition, it becomes more than a tool or aid but rather an extension of his lived body; a modifier to its intentional attitude which expands and redefines its phenomenal scope. Merleau-Ponty writes: "Once the [blind man's] stick has become a familiar instrument, the world of feel-able things recedes and now begins, not at the outer skin of the hand, but at the end of the stick. (1945/2002: 175-176) Another example given, offered by Don Ihde, involves the use of a common pair of eyeglasses. He notes how the physical properties of the glasses themselves, such as their weight where they rest upon my nose or smooth curvature as they repose snugly behind my ears, become imperceptible during use. In fact, they reformulate how I relate to the world. He writes: "My glasses become part of the way I ordinarily experience my surroundings; they "withdraw" and are barely noticed, if at all." The relation of mediation between "I-glasses-world" becomes "(I-glasses)-world" (p. 73).

Returning to Merleau-Ponty, he writes about how the assimilation of an item into the corporeal schema allows one to instinctively modify one's movements in order to accommodate this new addition:

> A woman may, without any calculation, keep a safe distance between the feather in her hat and things which might break it off. She feels where the feather is just as we feel where our hand is. If I am in the habit of driving a car, I enter a narrow opening and see that I can 'get through' without comparing the width of the opening with that of the wings, just as I go through a doorway without checking the width of the doorway with that of my body. (1945/2002: 165)

This kind of tacit familiarity exemplifies the preconscious, irreflective extension of the body to include an object within its schema. Once this level of absorption into the body is accomplished, it induces the same transparent quality which belongs to the body itself. In an earlier example, Sartre (1943/1969) wrote that one's hand "vanishes," in the act of writing but he also wrote that so too does the pen vanish. One's perceptual attention becomes fixed not on hand or pen but on the act of writing, on the task at hand. One can see how these kindred notions of schema and transparency fit into a holistic picture of the lived body. Let us now see how these notions apply in the example of tele-presence, wherein that which is assimilated into the corporeal schema, that which is rendered transparent, is a complex technological interface as in the example of VR head gear/apparatus.

§ The Lived Body, Level V — Virtual Reality and Tele-presence

The main difference that Dolezal points to regarding VR and tele-presence is that the former pertains to virtual objects whilst the latter pertains to remote objects. Dolezal takes no position regarding the ontological status of virtual objects, at least not explicitly. However, early on, she does make two admissions which hint certain clues regarding her position on the ontology of VR. The first clue is that she cites Craig Murray and Judith Sixsmith, in particular their definition of a VR as involving the generation of artificial environments (1999: 316). The second clue is that she cites Jonathan Steuer's definition of tele-presence as experience of a spatio-temporally distant real environment (1995: 36). Naturally, simply citing someone's research does not entail that one is in exhaustive agreement with every aspect of it. However, it is also true that people cite the research which will help to motivate or support their own claims.[34] Two words in particular stand out from the previous citations and those are "artificial," with respect to VR and "real," with respect to tele-presence. This is not enough to extrapolate a hidden ontology within Dolezal's work but it is enough for cursory acknowledgement, especially because during the course of this thesis we have already made—and will continue to make—observations about virtuality in an effort to understand both presence and immersion.

She does however acknowledge a central similarity which unites VR and tele-presence and that is that both aim to induce a sense of presence. Furthermore, in order to induce this sense of presence, both must facilitate bodily transparency via assimilation of the technological apparatus into the corporeal schema. This is consistent with Dolezal's earlier insights regarding Husserl and Merleau-Ponty's notion of the lived body. She writes:

[34] Granted sometimes citation is made to raise salient objections but that is not the case here.

> In VR, only when the head-mounted display, data gloves, and body suit, which enable the user to interact with the virtual environment, are absorbed by the body schema will a sense of presence be induced (Murray and Sixsmith, 1999: 318). Likewise in tele-presence, mastery of the peripheral devices (i.e., joystick, hand controls, head display, etc.) will ensure a smoother engagement with the remote environment. With telesurgery and other tele-presence activities, the subject, with sufficient skill and practice, should feel the controlling apparatus to be a seamless extension of his or her own physical body. Furthermore, as part of the corporeal schema, engagement with the object will occur in a seamless and prereflective manner, corresponding to the mediated sensory feedback that provides information about the remote environment. (2009: 216)

She does however call into question whether or not interactions with a remote environment can be properly considered as extensions of the corporeal schema. She notes that in the case of telesurgery, whereas the machinery performing surgery on the patient is operated by the surgeon, it is not a proximate extension of the surgeon's own physical body in the same manner as a blind man's stick. She does write that "it is clear that this apparatus is being directly manipulated by the surgeon's motor-intentional actions and depends on the precise and skilled motor movements of a particular surgeon, not just the crude mechanisms of remote control," as in the examples of *Legal Tender* or *Telegarden*. Clearly the "remote surgical system enables an expansion of the surgeon's physical capabilities, abnegating the obstacles of distance." What is unclear for her at this juncture is whether it is sensible, in a phenomenological sense, to consider the robotic apparatus of telesurgery an extension of the surgeon's own corporeal schema.

Regarding activities such as telesurgery, she writes: "Does it still make sense to say that *I* performed an action, or that a particular physical event as far away as France … belongs to

me?" Here it is clear that there are doubts regarding ownership of action. As we have already shown, the difference between things like *Legal Tender* and telesurgery is that the latter involves an authentic sense of concrete risk. It is not only efficacious but ethical of the surgeon to ascribe normative value judgements to their actions.[35] The telesurgeon (ideally) has a sense of ownership where telesurgical operations are concerned. Not having said sense of ownership might dissociate them from the task at hand, hindering a sense of presence. It therefore makes sense, when examining the question of presence, to include the subjective faculty of ownership in said examinations, especially since this kind of reasoning seems to be reflected in developmental trends within the field of tele-presence technologies. As interfaces become more sophisticated, these technologies aim to induce a sense of bodily presence by ensuring the coincidence of agency and ownership of action. "These technologies hope to create a sense of re-embodiment, displacing the motor-intentional behaviour of the body without rupturing the phenomenological coincidence of agency and ownership" (Dolezal, 2009: 218). The central question then becomes, by virtue of what, and to what extent, is re-embodiment possible through tele-presence? For Dolezal, the most cogent means of answering this question comes from understanding the relationship between proprioception and motor-action.

§ The Lived Body, Level VI — Proprioception and Re-Embodiment

Proprioception is a term that has appeared in a wide array of academic and scientific fields. It is generally considered to pertain to kinaesthetic/somatic sensations that permeate the body

[35] Pondering the fate of the patient and the cost of failure not only encourages diligence but also indicates a respect for duty of care—both of which are things which one expects of a surgeon.

thus granting information regarding position, posture and movement. As Dolezal herself writes:

> Proprioception is usually thought to include the kinaesthetic and somatic sensations that permeate the body and give information regarding position, posture and movement. [...] some theorists characterize the information given by these sensations as a form of conscious awareness, where we are said to be proprioceptively aware of limb position and movement. On the other hand, other theorists characterize proprioception as a subpersonal and nonconscious function, where the body processes the information given by proprioceptive and kinaesthetic sensations without any need for conscious or reflective awareness. (2009: 218)

She also once again cites Gallagher who writes succinctly:

> Proprioception is the bodily sense that allows us to know how our body and limbs are positioned. If a person with normal proprioception is asked to sit, close his eyes, and point to his knee, it is proprioception that allows him to successfully guide his hand and find his knee. (2005: 43)

Gallagher also tackles the question of whether or not proprioceptive feedback is conscious or subconscious in nature. He offers a distinction between "proprioceptive awareness" and "proprioceptive information." The former involves a conscious awareness of the body's relative position but without the need for direct, conscious perception (2005: 45). The latter, by contrast, regards information "generated at peripheral proprioceptors and registered at strategic sites in the brain … [operating] as part of the system that constitutes the body schema" (2005: 46). It is this latter type of proprioception that is most relevant in regards to

the aforementioned bodily transparency. As Dolezal writes, "the aforementioned transparency of the body as experienced in successful intentional action is made possible by the body schema that uses proprioceptive information … in order to correctly discern the posture and position of the body and the quality and aspect of motor movement," (2009: 219).

Later on, Dolezal goes on to build a case for proprioception being a "fundamental element in the experience of agency and ownership of action … the coincidence of proprioceptive sensations to visual feedback of motion is the mechanism that induces a sense of ownership of action" (Ibid). In support of this point, Dolezal turns to an empirical psychological study regarding Ian Waterman (IW)[36], a man who lost his sense of touch and proprioception from the neck down as a result of large fibre peripheral neuropathy. IW was not paralysed and retained the ability to move his body even despite suffering from almost total deafferentation.[37] However, especially in the early days of his illness, he had to painstakingly relearn how to move his body in order to perform everyday tasks. He accomplished this feat by conceptualising his movements alongside visual cues about body position. Ultimately, even to this day, things like natural movement and posture require constant mental concentration coupled with attention to visual information. Gallagher writes:

> at the onset of his illness, IW experienced a complete loss of motor and postural control, but did not experience paralysis. He had to painstakingly relearn how to move and perform everyday tasks by conceptualizing his movements and using visual cues about body position. For IW, even

[36] Cole, Sacks and Waterman (2000)
[37] Deafferentation as in the destruction or inhibition of the afferent nerve fibres of the central nervous system which send things like locomotor information to the brain.

> after relearning a repertoire of body skills, movement and posture require constant mental concentration and visual information (2005: 43–45).

IW lost the seamless mode of operation extant in body invisibility, wherein successful absorption of various data into the corporeal schema allows the body to become a transparent background to its tasks. Therefore, Dolezal argues that proprioceptive information must be key wherein the function of the lived body is concerned. As Tsakiris and Haggard put it: "Both action and body cues need to be integrated in order to generate the normal experience of will, agency and body ownership that we enjoy in our daily lives" (2005: 397). There is empirical support for this phenomenon evidenced in the IW case, who along with Jonathan Cole and Oliver Sacks, was "re-embodied" in a robotic form using tele-presence technology at the Johnson Space Centre in Houston, Texas:

> The robot's arms have joints that move like those of human arms, and three fingers on each hand. The arms are viewed by the human subject through a virtual-reality set placed over the eyes, with the robot cameras set in the robot's "head" so that the subject views the robot arms from a similar viewpoint as one views one's own arms. No direct vision of one's own body is possible, while one sits across the room from the robot. A series of sensors are placed on one's own arms, which in turn control the movement of the robot's arms. Then when one moves, the robot's arms move similarly, after a short delay. Thus, one sees and controls the robot's arms without receiving any peripheral feedback from them (but having one's own peripheral proprioceptive feedback from one's unseen arms)…. Making a movement and seeing it effected successfully led to a strong sense of embodiment within the robot arms and body. This was manifest in one particular occasion when one of us thought that he had better be careful for if he dropped a wrench it would land on his leg! (Cole, Sacks, and Waterman, 2000: 167)

This experiment suggests that a sense of ownership of action can be transferred to (or perhaps projected upon) a remote body. That which facilitates this superimposition of ownership is precise visual feedback of motor movements which align with the body's own system of proprioceptive information. In other words, if the robotic limbs are displayed from a point-of-view which simulates ordinary visual perspective and move at familiar speeds along familiar vectors, then it becomes easier to induce a sense of ownership within the controlling subject. From here Dolezal is easily able to motivate the claim that there are interesting parallels between the kind of proprioceptive learning which IW had to undergo and the kind of learning which a telesurgeon must undergo in order to achieve tele-presence. Considering the matter of proprioception more generally, she writes that "it has been long argued in VR research that a visual and sensorial match of the virtual body to the human form is what induces a sense of embodied immersion" (p. 220). Returning to the instance of the telesurgeon, she argues that it is this harmony between proprioceptive information and visual/sensorial feedback which allows for the transference of ownership of action which is fundamental to tele-presence. She writes:

> ownership of action can be transferred to other bodies that provide visual feedback of motor movements that, to a large extent, matches the proprioceptive feedback within the body, even though the physical aspect of the new body, in this particular experience "a set of steel rods and stubby robotic [three-fingered] hands," does not correspond to a human aspect. (Dolezal, 2009: 220. Quotation from Cole et al. 2000: 167)

In a sense, though she does not herself declare that this was her chief goal, what Dolezal has ultimately achieved is to outline, in the most dutifully rigorous of terms, exactly what one must take *enriched* to mean in cases of enriched tele-presence. She has delimited the minimum level of fidelity which a virtual environment must achieve in order for tele-presence proper to obtain. Namely, a kind of proprioceptive sensory synthesis. This matches with Slater's insights on immersion, the latter of whom thinks that technology which facilitates a broader set of sensorimotor interactions enables greater degrees of immersion/presence.

We have seen hitherto that phenomenal transparency of an object enables it to be assimilated into the body schema. We have also seen how proprioceptive feedback allows for greater ownership of action. I can think of no objection as to whether these facts could obtain *vis-à-vis* video games (nor any principled reason why such an objection could not be given) therefore it seems sensible to assert that one can in fact incorporate virtual objects, which in this case represent remote entities, into the body schema. In fact, from the perspective of tele-presence, there is little to differentiate telesurgery and a hypothetical surgery simulator game. To illustrate this point let us imagine that the telesurgeon in question not only operates remote mechanical limbs (the virtual presentation of which is accompanied by all the required proprioceptive feedback, thus *enriching* the virtual environment in question) but rather that said remote mechanical limbs, *presented virtually*, are operated by the surgeon interfacing with identical mechanical limbs which are present in their current environment. Thus, the surgeon operates the present mechanical limbs and the motions of these mechanical limbs is transposed symmetrically to the self-same remote mechanical limbs which themselves are represented on a display as virtual mechanical limbs. [Present-Limb - Virtual Limb - Remote Limb]

Since we have sufficient cause to state that assimilating tools can engender bodily transparency, we can assert that the actual present mechanical limbs may become invisible to the surgeon. In addition, since we know that remote objects can be absorbed into the body schema through proprioceptively-rich technological apparatus, the remote mechanical limbs may also achieve this same invisibility. The line between the two pairs of mechanical limbs will blur until both exist within the same intentional framework; until both gain an agentive parity which makes ownership of telesurgical actions possible. But one core fact cannot be ignored in this process. Whereas the surgeon knows that their inputs in the present mechanical limbs generate symmetrical outputs in the remote mechanical limbs, the telesurgeon is forced to encounter virtual limbs as well—indeed there is no way of avoiding them if one wishes to access the remote environment.

Since virtual objects are necessarily encountered during the course of accessing a remote environment, this implies that, on some level, it is possible to incorporate virtual entities (or virtual representations) into the body schema because otherwise the tele-presence which the surgeon achieves would be implausible. I foresee three immediate objections to this conclusion.

Firstly, *that the telesurgeon bypasses the virtual aspect entirely*. This would require supernatural ability. Since the telesurgeon does not have this ability, we must assume that virtual mediation of the remote is required. [38]

Secondly, *that the virtual objects are encountered but are not incorporated.* As we have already established, this would entail that said virtual objects did not achieve transparency

[38] The surgeon is not Superman. They have no method of directly perceiving events which are transpiring in New York if they are in Paris. Such is beyond human limitations which is why such technology is required.

for the telesurgeon, which would make the virtual objects a constant attentive burden. This kind of experience would not conduce to telesurgery and does not track the success which telesurgeons achieve in their operations.

Thirdly, *that there are no virtual objects and so they cannot be encountered.* This objection is fairer than the former two but is still unfair. One does not need to commit themselves to any ontological position *vis-á-vis* virtual objects in order to advance the claims which I have done. As previously stated, for the virtual sceptic, one can instead limit their claims to the matrix of light and colour on the digital display in question. One can then designate said matrix[39] as the set *P,* a set which for coherency's sake will be called *virtual objects*.[40]

Since these objections do not stand—and since I cannot presently conceive of any sound reason to object to the notion nor any principled reason why such an objection could not be conceived—I am confident in the assertion that one can incorporate virtual objects (be they representations of remote objects or real digital objects) into the body schema.

§ The Lived Body, Level VII—Virtuality

[39] A matrix which, it ought to be acknowledged, seems intuitively to be experienced/recognised as belonging to this category known as the virtual—whatever that may be. So, there is always the matter of parsimony to consider.

[40] As evidenced in the above footnote, people have widespread intuitions about the virtual and so I am content that this move is justified.

To my mind it seems fairly uncontroversial to assert that when one plays a video game, one encounters virtual objects (whatever they may be).[41] At the very least if one is going to encounter them anywhere, one is likely to encounter them in a video game. As previously argued: for the virtual sceptic or staunch irrealist, we can simply consider that which we encounter—as mediated by some form of technology, whether screen or headset—the set *p*. However, for the sake of coherency, I am going to use the term virtual objects henceforth. The objects which the tele-surgeon has been shown to incorporate into their body schema are presented virtually. As we have shown, the objects in question are not only remote real objects, but also virtual ones in so far as they are virtual representations of those real objects that happen to be remote. The image of the patient is not literally the patient. If one changes the saturation or contrast of one's display it will affect the properties of the virtual patient in a way which will not alter the properties of the actual, remote patient.

One can also assert that the tele-surgeon not only seems to be capable of extending their body schema to include virtual objects but that this eventuality follows the same pattern outlined by Merleau-Ponty. The tailor who extends their body schema to include cut-able objects via assimilation of the scissors or the blind man who extends his body schema to include the navigable world via assimilation of the stick are operating in the same manner as the telesurgeon who extends his body schema to include the remote limbs via assimilation of the virtual limbs. One way or another, we are left with an interesting observation: that the

[41] Once again, if one does not believe in the existence of virtual objects at all then one can at least admit that one encounters *that which is commonly labelled as the virtual*. Even in the face of staunch irrealism which portends illusion, one can simply say that we encounter a certain set 'p' and my forthcoming point will still stand because everyone seems to agree that sets exist. If we were of a maverick ilk, we could even call this set: virtual objects.

corporeal schema can adapt to virtual objects through adherence to an already established pattern.

This allows us to draw the following comparison. In the cases of immersion and tele-presence one's body schema is modified by technological apparatus in such a way that it adapts to include virtual objects. In the case of playing video games, taking hold of the steering wheel on an arcade machine when playing *Power Drift* (Sega, 1988) adapts the body schema to the virtual car (hence why we sometimes swerve to navigate virtual corners—an obvious sign that motor intentionality has shifted). Taking hold of the light-gun while playing *Time Crisis* (Namco, Nex Entertainment, 1995) adapts the body schema to the virtual terrorists. Indeed, as a simple maxim one can say that taking hold of the gamepad while playing video game *N* adapts the body schema to include the virtual objects of the video game *N*.

The question that arises now is this: *in what significant ways, if any, does immersion differ from tele-presence*? All of the aforementioned insights pertaining to tele-presence seem to apply to immersion in a video game as well. Indeed, throughout the course of examining tele-presence many such video game examples have been cited. Are we therefore motivated to consider the possibility that tele-presence provides a better conceptual lens than immersion? Is immersion a species of tele-presence or *vice versa*? To my mind, such ventures are spurious to the point of absurdity. We have already demarcated, via Slater, the relationship between immersion and presence (the latter of which is a parent to tele-presence). This relationship is one of meronymy and therefore to assert differently of tele-presence would be quite beguiling indeed. immersion is an objective property of a system which has the subjective feeling of presence as a corollary. The only thing which changes between presence and tele-presence is the remoteness of the environment in question, not the fact that one

feels present. Therefore, the only accommodation that one needs to make is to clarify that in certain cases, immersion will be an objective property of a system which has a subjective feeling of tele-presence as its corollary—wherein tele-presence is simply shorthand for 'presence in a remote environment' as opposed to its own mental state, the latter of which would imply a disjunction *re* presence.

At this juncture, it becomes perspicacious to examine the similarities/differences between *performing telesurgery* on the one hand and *playing a video game* on the other. The first intuition that one might have is that *telesurgery* involves a remote environment whereas a video game does not. This intuition is flawed insofar as it presumes what (and where) a video game is from the outset. As we will see in greater detail shortly, from the perspective of a Digitalist like David Chalmers, it is reasonable to advance the claim that video games are remote environments because the pertinent data structures are quite literally housed on computers which are remote. Even if I am sat in my living room playing a video game on my Nintendo Switch, the hardware/software which instantiates Chalmers' real digital objects is approximately 3 metres from my person which, outside of being in direct contact with my body, qualifies as remote. As for the corresponding virtual object which only exists when a digital object is accessed in a certain way (say via screen), it is also sensible to suggest that this object is remote for reasons which Sageng might share, namely that the graphical matrix which instantiates them (at least in my field of vision) is bound to my monitor which is also roughly 3 metres away.

Now consider the following: the fact that a telesurgeon's ownership of action/sense of agency adapt to remote motorised limbs (accessible only in a virtual fashion) and that this adaptation is indicative of tele-presence suggests that to feel present is to feel as though

certain things are *here*.[42] To feel present in a forest is to feel as though the aggregate of entities which constitute said forest (trees, footpaths, bracken, scowles etc.) are near to oneself. That is why, put quite plainly, to feel present relates to a feeling of "being there". It is the tacit but powerful recognition that the world is here with me. When the telesurgeon experiences presence, he summons the motorised limbs to him, adapting his body schema to them and incorporating them into his agentive framework. Much like how the falconer, with arm aloft, anticipates the decisive moment when the great bird will alight upon his glove and thus exist in concert with his own agentive framework, be implied in and affected by his own movements and thus prompting adaptations across his sensorimotor landscape, so too does the telesurgeon experience something similar. Only instead of a bird of prey, the catalyst in the surgeon's phenomenology is the technological apparatus which, guided by virtual interface, he uses to access the patient. He re-embodies himself, extending himself to new agentive horizons in line with the way in which his corporeal schema has adapted. This is the same for the video gamer. The controller is the apparatus which allows us to bring virtual worlds into focus via assimilation of an avatar.

However, much as Dolezal herself does, let us exercise a modicum of caution before proceeding. Dolezal returns diligently to an earlier observation made by Husserl regarding body *situation*. In his own words: "I do not have the possibility of distancing myself from my Body, or my Body from me." (1952/1989: 167). The body is *nullpunkt*, an absolute here to which all else is there. Dolezal thinks that it is important to understand the extent to which notions of re-embodiment challenge this phenomenological axiom.

[42] Where 'here' is limited by my body to the point that, as phenomenologists will attest, the distinction is elided. It is here *qua* body, not here *and* body.

§ The Lived Body, Level VIII — Acting Self versus Sensory Self

Dolezal writes:

> re-embodiment, if we are to consider the essential phenomenological features of embodiment, would entail a transfer of the body schema, motor-intentionality, and perception, where successful intentional action would induce a transparency of not only the technological interface with which one engages, but also transparency of the body in the remote environment. (2009: 220)

This, intuitively speaking, is true of many video games. It also seems to be the case that where one of the aforementioned items are transferred, so too are the others. Furthermore, the transparency of the gamepad is obvious. Attending to the features of the controller in my hand would hinder my ability to play a video game seamlessly in much the same way that attending to the features of the keyboard in front of me would hinder my ability to type seamlessly (and it has, I assure you). The point is, it seems as though one can have a genuine sense of embodied presence in a remote environment, i.e., one can be telepresent. Yet how can this be possible when, as Husserl maintains, the body is an absolute here from which I cannot distance myself? In order to approach this issue Dolezal turns to a helpful distinction made by Tsakiris and Haggard (2005: 389) between the "acting self" and the "sensory self." The acting self is "the author of an action and also the owner of the consequent bodily sensations,"

whereas the sensory self is "solely the owner of bodily sensations that were not intentionally generated, but … passively experienced" (p. 389).

Phenomenologists often concern themselves with the intentionality of the body, focusing their remit on perception and motility. However, the body is also a unique field of sensory experience. Our bodies, provided that they are functioning in a healthy manner, are always assimilating sensory information from our surroundings in a passive sense. There is no volitional act which, by virtue of its volitional quality alone, can mute one of our senses. We are always receiving visual, auditory, gustatory, olfactory and haptic information even if we are not consciously mindful of it. Our living bodies are the absolute site of all feeling and we are always in the mode of feeling things. Contrast this with the IW case. In this example, it is clear that body intentionality is transferred to some extent, as evidenced by feelings of presence, themselves contingent upon relocation of the corporeal schema (such that transparency is achieved) and a coincidence of ownership with proprioception. However, it is also still the case that IW's literal body has not moved and if someone were to inflict injury upon him during the course of the experiment, it would not be his telepresent body that suffered. For Dolezal, this distinction between the types of self/body preserves the observations of Husserl by enshrining them under the mantle of the "sensory self" whilst also supporting the empirical findings of the IW case which regards the re-embodiment of the "acting self."[43] Dolezal writes:

> The sensory body remains an absolute here, from which the acting self is displaced through the mediation of some sort of communications technology. Furthermore, the sensory body as an

[43] And kindred cases of tele-presence.

> absolute here, located in a specific spatial and temporal context, cannot be distanced from itself, implying that even the most seamless experience of high-fidelity tele-presence will remain qualitatively different from that of engagement with one's immediate surroundings, since even though a sense of bodily risk in the remote environment may be induced, it will never be a reality. … Hence, if a fire breaks out in a distant operating theatre, the surgeon manipulating the surgical apparatus from some remote location may receive sophisticated fire sensations through a sensory feedback device and feel an embodied sense of risk, but his or her skin will never suffer the risk of burn. (2009: 221)

This notion of an acting self is especially important for us because when playing a video game, it is clearly the acting self which is displaced or re-embodied.

Let us look at some examples drawn from video games which highlight instances of the acting self being displaced. The first example is that of *Hang-On* (SEGA AM2, 1985). A special arcade cabinet was released for this game which enabled players to mount an ersatz motorbike, leaning their body weight left or right to tilt the frame and thus drift around the sharp corners in game. This is not too far removed, at least in form, from the actions one would expect of a real motorbike racer in the MotoGP.

Another example can be found in *Wii Sports* (Nintendo, 2006) wherein one can choose between a few different games which emulate a certain sport. If one chooses boxing for instance, one must throw real punches with one's real fist in order to perform virtual punches with one's virtual fists which mirror the speed and trajectory of one's real punches. In this example the disparity between the real and virtual event is even smaller because there is no sense in which the punches which one throws during the course of playing *Wii Sports* are fake. One's punches may not be aimed at anything, nor do they carry any intention to do harm (or

strictly speaking to punch anything in particular) but this does not invalidate their status as punches. If one were to argue such a point then one would have to argue that traditional boxercise[44] did not involve throwing real punches which would present one with a somewhat confusing account of what a punch is exactly. Instead, it seems more parsimonious to accept that one throws real punches and that, by extension, there is a close relationship between the real and virtual event.

This closeness aids the aforementioned shifts of motor-intentionality and assimilations into one's body schema. If the controls for *Hang-On* were reversed, or if jumping was required to throw a punch, then this disparity would confuse and disorient the player, making it very difficult to adopt the technological apparatus in a way which would extend one's sphere of action to the virtual realm. Therefore, what we can draw from this is that intuitive control schemes which utilise proprioceptive feedback in a manner which mirrors the sensorimotor tapestry of ordinary experience are essential in heightening (though not necessarily facilitating) immersion in a VR environment. In essence, this is a repetition of Slater's point from earlier, about immersion increasing based on the ability to facilitate a wide field of sensorimotor interactions. It also begins to show us that the key to facilitating the aforementioned lay in the phenomenal parity between the acting self and the sensory self. If exercising one's *fiat* (as Husserl would have it) in the real world commits one to a pattern of action the function of which is to accomplish a familiar action in the game-world, then high degrees of immersion are possible.

[44] A method of fitness training which was popularised in the UK in 1992 by Andy Wake. It involves repurposing the training practices of boxing for the sake of personal fitness as opposed to competition. In the past many have been known to practice in their own homes via the use of instructional VHS tapes or DVDs.

§ The Lived Body, Level IX — Closing Remarks

At this juncture, Dolezal nears the end of her investigation into tele-presence and reviews the insights that we have listed hitherto. She begins to speak more generally about the qualitative aspects of human interaction (as lived bodies) and claims that no tele-presence environment, irrespective of its level of fidelity, could compensate for the lack of embodied risk which is immutably part of the sensory self. She goes on to espouse that it is not just the features of the sensory self that present what seems to be "an insurmountable qualitative difference between the experiences provided by tele-presence and VR as compared to real-world interaction" (2009: 222) but rather that more general aspects of intercorporeality also play a role. She wonders whether or not tele-presence should be regarded as a distinct experience in its own right instead of providing motive force for the technological substitution of reality. Ultimately, she concludes, "it is hard to imagine that the comfort and reassurance brought about by the simple physical presence and contact of one's own doctor will ever be induced in a remote interaction, no matter how refined the surgical and medical expertise provided." (Ibid)

This may all well be so but what is of most interest to me are passive admissions that Dolezal makes about VR, seemingly anterior to what she has written prior. Recall that she has already written that VR is "distinct from tele-presence in that it involves the use of three-dimensional computer graphics technology to generate artificial environments in which one is immersed" (2009: 208). Whereas she does acknowledge that both tele-presence and VR have a kindred goal in inducing presence, she ultimately maintains the supposition that VR is artificial or unreal, hence why tele-presence does not apply to VR environments. However, as

listed above, in her concluding remarks she groups tele-presence and VR into the same category when she writes of the "insurmountable qualitative difference between the experiences provided by tele-presence and VR as compared to real-world interaction" (2009: 222). Here tele-presence and VR are bifurcated from reality, which exists in dichotomous relation to them both, thus rendering them familiar if only by association of opposites.

Whether or not there is any depth to these comments is not for me to explore. I have no intention of decrying Dolezal on the basis of what is perhaps an offhand remark but I do wish to draw attention to the notion that tele-presence and VR can say interesting things about one another. In particular, there are intriguing parallels between the proprioceptive realities of assimilating robotic limbs into one's schema and that which occurs during video game play when using a gamepad (or similar apparatus). In fact, from a phenomenological perspective, the particulars of telesurgery are not all that different from the particulars of a surgeon simulator game. The sense of corporeal risk might differ but the way in which the technological apparatus provides proprioceptive feedback, thus facilitating ownership of action and inducing presence is astoundingly similar. Even if one cannot be strictly 'tele-present' in the virtual world of a video game, it is clear that mechanisms very similar to tele-presence are in full swing. Video games are clearly a very different animal to other forms of visual media. They are explicitly immersive technologies; interactive technologies which involve actual control and skill *vis-à-vis* complex virtual environments which mirror aspects of reality with increasing fidelity. So, what of the acting self when it comes to virtual worlds?

I believe it is more than reasonable to suggest that not only do we assimilate things like gamepads but that virtual objects, such as a player avatar, can be assimilated into one's corporeal schema as well, thus transporting the acting self and inducing transparency in a

manner which is consistent with our findings regarding immersion/presence. I also believe that this insight is one of the keys that will link us back to the opening project of this thesis, i.e., understanding how implicit speech and presupposition can make sense of how it is that video games can be said to influence the user in ways that other media often do not. The short explanation for this is that the aforementioned process expands my sense of self to include the avatar, allowing the ludo-narrative aspects of play which are ordinarily confined to the gameworld to include me. From this immersive vantage which affords[45] new meaning, it becomes sensible (though by no means inevitable) to generate a broader set of presuppositions about both the virtual and actual worlds—a process which induces no sense of threat and which one may not feel obligated to resist exactly because the lack of any corporeal risk in VR interactions precludes such things.

In order to elucidate these points, we must now finally turn our attention to virtual reality itself and ask, in a broad sense, what is virtuality and what role does it play where video games are concerned?

[45] More on this in Chapter 6.

CHAPTER 4 — Virtual Worlds

Dolezal's observation that the technologies of tele-presence and VR share a common design project in the inducement of presence is quite a salient one. It gives one grounds, from a dialectical perspective, to apply similar philosophical toolkits to each area. Since this thesis concerns itself with the phenomenology of video games, in particular those aspects pertaining to immersion/presence, a theory which conflates a subspecies of presence with VR interactions is quite attractive. It seems as though the road is laid out for us; as though the next obvious step towards detailing the mechanisms through which video game immersion dovetails with the concerns of presupposition and implicit speech is to explore tele-presence further, perhaps even selecting it as the special feature which facilitates the insights of the first chapter. However, as we have seen, there is one outstanding feature of tele-presence that Dolezal highlights as key. Namely that it relates to remote *real* environments, as opposed to the allegedly artificial environments of VR.

At this juncture, in order for tele-presence to be a dependable approach for examining the vicissitudes of video games one must either A) show that tele-presence can apply to artificial environments, B) show that the VR environments of video games can be remote, real environments or C) show that a theory of VR is unnecessary for an examination of video games in this thesis. My aim is to show that the latter is the case. Our chief goal is to analyse the impacts of implicit speech and it seems sensible to suggest that this can be accomplished without making any metaphysical commitments to a particular theory of VR.[46] However, since

[46] Langton and West did not require a theory of presence in order to motivate claims about implicit speech therefore why should we?

we have yet to define VR in even the remotest sense, it would be question-begging to assume from the outset that no understanding of VR is required in order to pursue our goals. Therefore, for the sake of rigour and due diligence, it is incumbent upon me to at least give a cursory glance at the rich field of literature that has emerged surrounding VR hitherto.[47]

§ The Virtual and the Real — Fact, Fantasy or Fiction?

At this juncture, some might object that video games are not best considered as virtual worlds but rather as fictional worlds. Coupled with this objection comes the argument that immersion ought to be understood in the same way as when one speaks of becoming absorbed/lost in a story. As for the effects of implicit speech, this too would be viewed through this lens. My problem with this is that when considering the best candidate for the types of worlds video games are/convey, it seems as though all video games have corresponding virtual worlds but only some have corresponding fictional worlds, making VR a more reasonable choice.[48] Consider popular games such as *Pong* (Allan Alcorn, 1972) or *Tetris* (Alexey Pajitnov, 1984). In contrast with modern triple-A video games such as *Horizon: Forbidden West* (Guerrilla, 2022), it is hard to see how there can be anything fictional about such basic software interactions—and yet this software, however basic, is still a virtual environment running on digital computer hardware.

[47] Many scholars that we have reviewed, including Dolezal herself, have brushed up against this area of research and so it seems inevitable that we do as well.

[48] Some might argue that I have begged the question here. How can I cite virtual worlds as more basic before defining what a virtual world is? I ask that my audience be patient because this whole chapter will be devoted to that task. I have begged the question with the intention of *raising* the question and, more importantly, with the intention of answering it.

Granted at this juncture a Waltonian will object that fictions can be anything that serve as props which mandate imaginings in games of make-believe and therefore, since it is conceivable that someone could view the white paddles of *Pong* or the coloured tetrominoes of *Tetris* in this way, these games can also be considered to contain fictional worlds. However, though it is possible *sensu stricta* that someone could behave in this fashion during play, it is by no means an expectation of the game.[49] One can quite easily play *Pong/Tetris* without inviting such imaginings (almost without thinking at all!) but one cannot play said games without a corresponding virtual software environment. Therefore, though it may be possible to engage with all games on a Waltonian level, in certain cases it would be a less natural feat whereas without a virtual environment instantiated by computer hardware, no play would be possible at all. As such, though all video games[50] *can* be associated with fictional worlds; all video games *must necessarily* be associated with virtual ones—thus making them a more basic kind of candidate for video games as a whole.

The Fictionalist, having read this thesis, might not be deterred by this. Though virtual worlds might be a better sort of candidate for video games, a Fictionalist will still argue that implicit speech operates on the level of fiction. The presuppositions which one generates, pernicious or not, originate from and are carried by props. Only insofar as *Princess Peach* is a prop that serves to mandate imaginings in a game of make-believe (one fettered by and built

[49] To my mind, to argue that such imaginings are an expectation of playing *Pong/Tetris* would be quite an outlandish claim. These games are played in such a casual, offhand manner on any number of rudimentary devices that it would be cumbersome to have to engage with the games in this manner. In fact, the very design principles behind such games, their simplicity and automaticity, seem to preclude the need to view these games in such a fashion.

[50] I am still sceptical of this. In examples such as *Pong*, my intuition is that the mental gymnastics which one would have to perform in order to treat the paddle(s) and ball as props in a game of make-believe end up painting quite an insincere picture. Constructing a game of make-believe to play *Pong* seems deliberate and, by that same token, disingenuous. Even action-reports such as "this paddle is mine" or "I hit the ball" do not require one to adopt a Waltonian stance. It is far more parsimonious simply to assert that a trick on the level of phenomenology, of having control of and ownership over the cursors, induces grammatical alterations to how we talk about video games.

upon sexism) can we raise the concerns of the first chapter. Therefore, if immersion makes one more susceptible to implicit assent, it does so by virtue of our contact with props. This is a salient objection but one which I will ultimately dismiss in the next chapter. For now, suffice it to say that the kind of implicit speech/content to which immersion makes one more susceptible is not extant on the level of imagination/make-believe—in fact it is not a cognitive matter at all—rather it is latent within the field of perception;[51] literally seen, heard and understood on this level.[52]

This is perhaps, if only tacitly, another motive to pursue a theory of VR because if the aforementioned operates on the level of perception, then one immediately must define what it is *that is being perceived*. The most sensible answer, as we will come to understand, is to understand that video games are the locus of said perception. We must therefore look into the matter of virtuality *vis-à-vis* video games to see whether or not defining video games as virtual worlds is essential for understanding our sense of presence relating to them. For instance, if we claim to see an avatar, is it best to understand this as seeing a kind of object known as a virtual object?

§ The Virtual and the Real — Initial Concerns.exe

[51] Indeed, when I see Princess Peach, I do not have to think/imagine/make-believe anything at all. The reason that implicit speech/content is so difficult to interrogate is because it precedes the aforementioned, operating on the level of pure perception. I '*see'* and accept without any kind of thought or recognition because the objects of my environment, including the virtual ones, are not neutral, they are value-laden. More on this later when we marry James Gibson's *field of affordances* with Merleau-Ponty's phenomenology of perception.

[52] If the Fictionalist is willing to concede this point and is willing to argue that what we literally perceive are props (or that said perceptions are otherwise functions of fiction), then I have no objection. I do not *need* to consider virtual worlds as the more basic sort of world that video games are, I just think it more sensible, and intuitive, to do so.

The philosophical literature on video games has emerged mostly out of conversations between Narratologists and Ludologists and, where VR is concerned, has branched into three areas of thought. The first area of thought, concerning theorists such as Petri Lankoski or Gordon Calleja, has sought to understand VR environments in terms of our interactions with them. They have focused mostly upon the nature of play and how it uniquely defines, and perhaps constitutes, our engagement with a VR environment. The second area, concerning scholars such as Miguel Sicart, Edward H. Spence or Ren Reynolds, has sought to understand VR environments as ethical technologies with very real impacts for society and as such concern themselves more with the role which they play as opposed to their precise construction. The third area, with which I am most concerned, seeks to define the nature of a VR environment with reference to its contents. It is, as it were, concerned with determining the ontological status of a VR environment. As such, the theories presented henceforth have been selected because they present a continuous discussion which has gained traction within the literature; they exemplify an evolving project pursuant to defining the status of "the virtual" and, subsequent to this, defining whether or not VR environments require us to revise our ontological commitments.

However, there is an initial concern which has already been evinced by the section heading. There is a trend to position *the virtual* as a separate mode of being from reality (something which Dolezal also endorses, if only implicitly). Michael Heim, in *The Metaphysics of Virtual Reality* presents an account of cyberspace that draws parallels with the Platonic world of timeless forms, arguing it to be different in being from the ordinary world in the same way that the world of forms is different to the world of concrete particulars/appearances

(1993: 89). In a separate paper, Eduardo Castronova discusses the cultural and economic significance of MMOs such as *World of Warcraft.* Whereas he does eschew the label of virtual in favour of "synthetic worlds," he still argues that these worlds are not real by any means and therefore ultimately sustains a problematic, question begging distinction (2005: 3).

Not only is it question begging to make realist assumptions about the problem of virtuality from the outset but, as John Richard Sageng points out, it also hampers academic discussion of the topic and clouds insight. As he writes:

> the rhetoric around virtuality as a special mode of being stands in danger of obscuring the concrete issues that arise about the relationship between player and object. [Furthermore…] it is not very useful for assessing, say, the relationship between a player and his avatar, or whether actions performed in such an environment are subject to the same sort of moral evaluations as those outside the game. (2012: 178)

This line of reasoning is further supported by scholars such as David Koepsell who proposes that there should be a distinction between ontology as an enquiry concerned with being *qua* being, and ontology as an attempt to categorise and order objects through observation and language for a sake of a subject matter. In regards to VR, he argues that we should account for any phenomena in a metaphysically neutral manner "without regard to whether or not the objects of our common perceptions are real in some ultimate sense" (2000: 27).

The saliency of these points is undeniable and indeed many scholars, instead of starting out from the presumption of virtuality, have chosen to focus their inquiry into things

like fictionality or play itself.[53] We will review the work of Espen Aarseth, Grant Tavinor, David Chalmers and John Sageng, from whom we will draw candidate definitions for virtual worlds. We will select these as our focus for three reasons. Firstly, because they discuss VR from the perspective of video games specifically and have come to represent a broad trend within the literature (namely attempts to redefine and reposition virtuality itself). Secondly, because since the stance of this chapter will be to avoid commitments to a particular theory of VR, we need to cover a wide range of interpretations so as to render our silence valid. Thirdly, and most importantly, because these theories provide clear opportunity for an examination of immersion/presence *vis-à-vis* video games—with certain scholars even mentioning it—thus making them excellent control points against which we can contrast our own account.

§ Understanding Virtual Environments I — A Quest for Rules

Throughout the course of *Doors and Perception: Fiction vs. Simulation in Games*, Espen Aarseth seeks to understand the ontological status of virtual objects, ultimately seeking to define them as neither quite real or fictional but somewhere in-between (2005: 1). At one point, in order to demonstrate the difference between a dragon within a traditional novel and a dragon within a video game, Aarseth contends that one "is made solely of signs, the other of signs and a dynamic model, that will specify its behaviour and respond to our input" (2005: 37). He goes on to assert that "simulations allow us to test their limits, comprehend causalities, establish strategies, and effect changes, in ways clearly denied us by fictions, but

[53] Almost as though doing so will elucidate, by some token, the set of all theoretical items which fall within the vicinity of the virtual without ever having to presuppose such a problematic category.

quite like in reality" (Ibid). Here Aarseth wishes to draw attention to certain adaptive, rule-based qualities which virtual objects can possess as opposed to purely fictional objects which have no interactivity of any kind (except perhaps within the context of classic 'choose your own adventure' novellas but even then, the onus is purely on the reader). "When we play games," he contends, whether they exist, "in real or virtual environments, we really win or lose." (2007: 39) Therefore, for Aarseth, a dynamic model differs from a sign insofar as real accomplishment and/or achievement can be a product of interacting with it.

To illustrate his claim, he uses the example of labyrinths. Labyrinthicity, Aarseth contends, consists in a certain functionality, i.e., the ability to interact with it as per certain rules and restrictions—such as getting lost or eventually finding one's way out. He draws the reader's attention to a real labyrinth such as the one in Hampton Court and also a drawing of a labyrinth on a wall. Both can be navigated in a labyrinth-like fashion and therefore it makes sense to contend that both are real labyrinths which are accessed in different ways. In particular he claims the following:

> If a 2D drawing or a painted or tiled floor can be a proper labyrinth (and they can, since labyrinths do not come with specific height requirements) then a 3D virtual labyrinth in a computer-simulated world is a real labyrinth, since it can be navigated by the same rules as the one at Hampton Court. [...] A game labyrinth is a real topological object, consisting of virtual walls, whose material nature (e.g., wood) may be entirely fictional. (2007: 41-44)

Here Aarseth is drawing attention to the fact that labyrinths are substrate independent, functioning as such as long as certain patterns and rules are preserved—the latter of which

are presupposed to have a closer relationship to something's being real than its form. Another example which Aarseth uses to appeal to the reality of certain virtual entities on functional grounds is that of currency used in online multiplayer games—in particular the actual exchange of this currency and its use to generate real profit for gamers.[54] Aarseth notes that the "value of every currency in the world is relative to other currencies, and there is no absolute value that can be maintained independent of a currency's exchange value. This makes MMOG money just another currency, as real or virtual as my monthly pay check" (2007: 43). Aarseth does admit that the status of money within a video game can be purely fictional, or rather that elements of said currency can be fictional, such as its being such-and-such a currency in the narrative of such-and-such a world. However, ultimately the "reality of money is a function of the social character of the games, just as it is with inter-player relationships in general" (Ibid).

In other words, Aarseth is trying to distinguish between real, fictional and virtual instances of the same nominal phenomenon (such as a maze or money), claiming that what distinguishes the virtual from the simply fictional is its grounding in rule-based systems the features of which figure into, and are semi-continuous with, real rule-based systems. For instance, purely fictional money, such as the "Gil" from the *Final Fantasy* (Squaresoft) franchise of games does not bear any tangible economic relationship with real commerce. However, the various types of currency which one can accrue during the course of playing *World of Warcraft* (Blizzard Entertainment, 2004), as Aarseth has pointed out, do in fact bear a tangible economic relationship with real commerce. Considerations of this sort are sufficient, for Aarseth, to motivate the claim that *the virtual* stands somewhere in-between

[54] Plenty of gamers make a living simply from the exchange of this currency for a number of US Dollars (for instance).

the real and *the fictional* and is simulative in nature (i.e., it has elements which can participate with or mimic the real without being real).

For Aarseth, this means that instead of the common notion that game worlds are fictional, we should start to see them as composites where the fictional element is but one of the many types of world building ingredients. It also seems to imply that, by virtue of their grounding in said rule-based systems and distinct nature from fictional objects, virtual objects are a kind of real object, just one which has to be accessed via a virtual environment.[55]

§ Understanding Virtual Environments II — A Quest for Virtuality

In *Videogames and Fictionalism*, Grant Tavinor (2012) challenges Aarseth's approach and builds towards understanding virtual environments for their depictive power, and in doing so motivates the claim that 'virtuality' is simply a form of fiction—a kind of fiction which functions as a game. It is best clarified that by 'depictive power', Tavinor is invoking theories of representational art as outlined by Kendal Walton in *Mimesis as Make-Believe* (1990). Tavinor sees video games as interactive fictions, stressing that whether or not they involve narrative structures, they typically[56] involve visual representations with fictive content (Tavinor, 2009). Under this account, the 'depictive power' of a virtual environment is its capacity to prompt imaginings by virtue of visual representations with fictive content. This is of course similar in

[55] One of the weaknesses of this account is that it makes little sense to talk of virtual objects if one does not first qualify what the term 'virtual environment', indeed the term 'virtual' itself signifies. Simply deferring to computer-based simulations is not an effective explanation as they themselves are under-defined.

[56] The use of the word “typically” is not justified by Tavinor. To my mind it seems to be doing a lot of work and is contiguous with question-begging territory.

many ways to the Waltonian notion that fictions serve as props which encourage certain imaginings in games of make-believe. Tavinor also introduces an intention-based element to these imaginings, claiming them to be guided by the subject's awareness of author intention.[57] Let us look at his objections to Aarseth's account:

> Do the depictive and participative features evident in videogames and other virtual items establish that the items depicted therein are not fictional, and hence, that videogames involving such depictions are not works of fiction? Obviously, we need some clear idea of what fiction really is. Unfortunately, Aarseth does not supply a clear explanation of what he takes the concept to signify, relying quite oddly on a rather poor definition drawn from Microsoft Encarta that takes fiction to be comprised of:
>
> 1. novels and stories that describe imaginary people and events; and
>
> 2. something that is untrue and has been made up to deceive people (2005: 2).
>
> […] this, simply put, is an awful analysis of fiction. Aarseth actually begins his paper by criticizing previous theories of games as fiction for using the term fiction without qualification, but he then notes that he will "not engage" with fiction theories such as those from Thomas Pavel and Kendall Walton (Aarseth 2005: 1). But this is exactly what Aarseth and others need to do if they are to make a credible claim that videogames or their depicted objects are not fictions. (2012: 191)

[57] Indeed, at one point, Tavinor even distinguishes imagination purely on intention-based lines, using the example of two paintings with the same formal structure but different intended content as an example.

Here, as with elsewhere, Tavinor does not make any direct claims as to the nature of a virtual environment but already we can draw certain inferences based on his use of the term 'depicted objects' which links back to his commitment that video games are a species of representational art. This usage is not implicit or accidental; Tavinor himself argues that "the fiction/non-fiction distinction is a fact of the pragmatics of how depictive content is used, particularly with respect to what it is meant to refer: in the case of non-fiction, some aspect of the real world, and in the case of fiction, situations with an imagined existence only" (2012: 186).

In other words, if the objects depicted refer to some aspect of the real world, then it will be non-fictional in nature whereas if the object depicted refers to situations with an imagined existence only then they will be fictional in nature. This claim seems quite problematic. Fictions often refer to aspects of the real world but this does not invalidate their status as fictions. Conversely, one can argue that certain contents of our imagination might be non-fictional. As it stands, it seems as though one is led to conclude that if a virtual environment depicts an object whose referent is imaginary then that object will be a fictional object. Irrespective of the veracity of contriving imaginary referents, the question still arises at this juncture as to whether or not a fictional object, understood in this (or any other) sense, can also be a virtual object and whether a virtual environment is simply a fictional environment.

To Tavinor's credit, he does provide partial answer to these questions. Regarding virtual objects or as he terms it, an object's *virtuality*, he says that "*virtuality*[58] refers to the

[58] Emphasis in the original. By 'functional structure' Tavinor means to suggest that games are defined not by the platform on which they are housed (the hardware environment) but by consistent operational processes (the software environment). The functional structure of *Tetris* for instance would be the set of data which enables

fact that one object can serve as an interactive proxy for another kind of object because it replicates the functional structure of the target object" (2009: 48-51). In particular, Tavinor draws attention to the genealogical origins of the term virtual as emerging alongside the use of virtual computers—wherein computations were carried out via non-electric medium such as pen-and-paper. Due to the fact that algorithms are substrate independent, programs can be executed on any medium which preserves the functional nature of said program. Thus, Tavinor argues, knowing that different mediums can instantiate the same computational process, "in this sense a virtual depiction is a depiction that preserves some functional aspect of its target, and so allows for an interaction of the kind one might have with the target object." (p. 195)

From these grounds, Tavinor subsequently argues that virtual depictions[59] can represent real and fictional items, as in the case of Aarseth's labyrinths. There is a sense in which the virtual labyrinth in *Pac Man* is real because one can navigate—and get lost within—its confines as per any maze structure. However, there is also a sense in which it is fictional because its referent is imaginary (it also does not really contain ghosts and edible orbs). In the end, what is important to note is that Tavinor, similar in some respects to Aarseth, wants to preserve a functional understanding of virtuality, going on to conclude that it is this virtuality, and the interactivity which it entails, "that allows the fictions found in videogames to function

Tetris to look, sound and play as it does—facts which are grounded in computer code. As long as this software environment can be preserved and emulated then one can play Tetris on a Home Computer, Mobile Phone, Super Nintendo or even a Smart Watch and it would still instantiate said game as *Tetris*.

[59] I am not sure what role the term virtual is supposed to play here. In what way does a virtual depiction differ from an ordinary depiction? Tavinor suggests that a virtual depiction is a depiction that preserves an element of functionality but why does this preservation make the depiction virtual? Cannot depictions simply do this on their own and if so, why not? These are questions which Tavinor needs to answer.

as games." (p. 198) In other words, virtual environments are fictional environments which function as games.[60]

I am not sure of the nexus in which interactivity and virtuality are supposed to entwine, nor am I confident that virtuality—as an alleged species of interactivity—grants any power to fictions such that they can function as games. This seems like quite a magical claim. Tavinor writes:

> videogames present fictions […] involving virtual depictions that allow for a participation not seen in most traditional forms of fiction. […] the virtuality seen in certain videogame elements, because it is defined in terms of a propensity to support the interaction of the player, may be a species of "interactivity," […] Videogames are thus often *virtual fictional works*. Characteristic of such virtual fictions are their rich representational media, their responsive nature, and their consequent interactive opportunities. […] In *Oblivion* playing the game is comprised of exploring the environments, trading and conversing with characters, and battling goblins. All of these things are fictional, but they can provide the formal aspects of a game because of their interactive and virtual structure. (2012: 198)

Notably, Tavinor does not explain why it is that any kind of depiction specifically is enabling participation. He claims that the virtuality in video games is defined in terms of a propensity

[60] Some might object that a better interpretation of Tavinor is as follows. Video games contain environments which one can explore. These environments are populated by fictions and one might even go so far as to say that they are fictional environments. Virtuality is a functional feature insofar as it, when coupled to a fictional environment, allows it to function as a game. In other words, there are no virtual environments, merely fictional environments which, if virtual, can function as games due to the interactivity which the virtual entails. I admit that this interpretation is sound but even under this star we are left with the same curious gap in our knowledge. One cannot say with confidence that 'the virtual' entails interactivity without defining what the virtual is *such that it and not another incidental thing* entails interactivity.

to support interaction but then suggests that virtuality itself may be a species of interactivity itself, which seems circular. Either way, why does the virtuality in video games (which for Tavinor is simply their tendency to reproduce that which is depicted in a way which is functionally faithful) support interaction in this regard? Surely it is the physical mechanics pertaining to data structures and the real-time, rule-based algorithmic operation of digital software environments that supports interaction. That which is depicted is surely just an aesthetic touch; a window-dressing which is essential for beings limited by their sensory remit as opposed to a fact about the metaphysics of interactivity. Games may well contain elements of fiction but Tavinor needs to amplify upon virtuality a bit more before it makes sense to say that fictions are functioning as games on these grounds.[61]

§ Understanding Virtual Environments III — A Quest for Realism

So far, we have discussed two theories which, broadly speaking, have striven to determine whether the virtual is real, fictional or otherwise and they have done so not with recourse to the virtual items in question but with recourse to theories of fiction and function. Therefore, let us now assess a more recent response from David Chalmers which comes in the form of 'Virtual Realism'—a position which scrutinizes virtuality not simply through observations of certain entities but also through observation of properties and events.

[61] I understand that chess is a game and that chess on a computer is virtual game; virtual because it is instantiated by a virtual software environment and that it does, as Tavinor suggests, replicate the functional structure of chess. What I do not understand is that if ordinary chess is not a fiction that functions as a game, then why is virtual chess—as something which is supposed to be functionally-faithful by virtue of some interactive propensity of computer-based depictions—suddenly a fiction which functions as a game? It seems to be an unnecessary qualification.

One of the more popular approaches to virtual environments comes in the form of what has been termed Virtual Realism, originally associated with Michael Heim's seminal book of the same name. In this text, Michael Heim defines a virtual environment as “an immersive, interactive system based on computable information” (1998: 6). In *The Virtual and the Real*, D. J. Chalmers (2017) adapts this definition, distancing himself from the use of systems in order to “exclude cognitive systems (a conscious A.I. system perceiving and interacting with a physical environment, say)” (p. 3) from counting as a virtual environment. Instead, he places emphasis on computer-generated environments as being the locus of interaction and immersion. He defines computer generation thus: “An environment is computer-generated when it is grounded in a computational process such as a computer simulation, which generates the inputs that are processed by the user’s sensory organs.” (Ibid)

Chalmers contends that the following four things are true, borrowing from the desiderata of Michael Heim (1993) for the sake of coherency:

(1) Virtual objects really exist and are computational objects;

(2) Events in virtual worlds are largely computational events that really take place;

(3) Experiences in virtual reality involve non-illusory perception of a computational world; (2017: 1)

This is a position which he tentatively terms 'Digitalism'. He goes on to state that “virtual reality *simpliciter* can be considered a mass noun covering virtual reality environments and/or the technology that sustains them” (2017: 3). In terms of video games, this would make a

virtual environment the set of information pertaining to the 2D or 3D rendering of textures, models and landscapes within the video game's engine. Once rendered, this information is perceived by the player and organised into a coherent spatial framework.

Naturally these definitions, as he points out, are neutral on whether virtual objects (etc) are real or unreal. Whether one belongs to a realist or irrealist position, one can agree that virtual environments are computer generated, that one seems to inhabit them and that there seem to be an aggregate of interactive virtual objects which populate them. The question remains as to the nature of virtual objects under such an account. D. J. Chalmers maintains the following:

> What are virtual objects? In my view, they are digital objects, constituted by computational processes on a computer. They are perhaps best regarded as data structures, which are grounded in computational processes which are themselves grounded in physical processes on one or more computers. In some cases, multiple data structures may be associated with a single virtual object, in which case the virtual object will be a higher-level entity constituted by these data structures. (2017: 7)

He goes on to clarify, with reference to online social video game *Second Life*:

> When I see an avatar, it is this data structure that brings about my perception. What I perceive directly reflects the properties of this data structure: the perceived location of the avatar reflects one property of the data structure, while the perceived size, colour, and so on reflect other properties. When my avatar interacts with a coin, the two data structures are interacting.

> Whenever two virtual objects interact in Second Life, there is a corresponding interaction among data structures. Data structures are causally active on real computers in the real world; the virtual world of Second Life is largely constituted by causal interaction among these data structures. (Ibid)

For Chalmers, these insights are sufficient to establish the first argument in favour of Digitalism, namely the argument from causal powers. Virtual objects have the power to affect other virtual objects and even generate my experiences. Since it is really the digital object embedded in a real computational process which has said causal powers, Chalmers contends that this is substantial grounds for claiming that virtual objects are digital objects and exist in a real sense. Chalmers subsequently defends virtual properties and virtual events on similar grounds, claiming for instance that a virtual object's causal power to generate red experiences is sufficiently comparable to the causal powers of real objects. As such, the digital object really has the property 'red' (or is virtually red) when accessed in a virtual way. In terms of virtual events, Chalmers argues much in the same.

It should at this juncture be noted that Chalmers acknowledges that the Fictionalist (against whom he has dialectically positioned himself) may respond by claiming that said virtual objects can only have such properties in a fictional sense because the corresponding digital object (i.e., the data structure responsible for said virtual properties) does not, *per se*, possess the property ‘green’ or ‘tall’ whereas the virtual object seems to. On similar grounds, a Fictionalist might also contend that virtual events are only events in a fictional sense because whereas the virtual object may seem to be ‘flying through the air’ or ‘leaping a large gap’ the corresponding digital object (i.e., the data structure responsible for this virtual event) clearly

does not behave in such a fashion. Therefore, Chalmers admits, the Fictionalist will argue that virtual properties/events *are as such* only in the sense that 'Gandalf is tall' or 'Mario is jumping' are properties/events—which they contend *to be as such* only in a fictional sense. Chalmers' response is to claim that said properties/events do in fact obtain *vis-á-vis* a digital object but only when it is accessed in a certain way. A digital object accessed via a screen or through a VR headset really has such properties whereas if accessed via looking directly at a graphics card will not have such properties. As he puts it: "Virtual redness itself might be construed as a disjunction of all of these properties across different VR environments, or simply as the higher-order property of having some property that normally causes reddish experiences in the relevant environment." (2017: 11)

Assuming for a moment that said claims are true, we can assert that Chalmers is committed to maintaining that virtual environments are a kind of real environment, perhaps a sub-category, by virtue of their real causal powers. Whether or not all of Chalmers' claims as to the ontological status of virtuality obtain is not of greatest import to me. For me, his greatest insight comes in his defence against Fictionalism wherein he contends that the aforementioned digital worlds (empirically grounded in computer processes and very much real) are better candidates for the basic sort of virtual environment. This is similar to what I attempted earlier with virtual worlds. In his words:

> ...every VR environment involves a digital world, while only some of them involve an associated fictional world. [...] every virtual reality environment can be associated with both a digital world (with virtual space) and a fictional world (with physical space). However, the digital world is always present. The fictional world involving physical space is optional. The invocation of a

> fictional world depends entirely on the interpretation of the user, and in many cases that interpretation will not be present at all. (2017: 19-20)

It is easy to see the wisdom in this claim. If digital worlds are the empirical basis for virtual worlds, then all virtual environments are contingent upon digital worlds. It therefore makes sense that they would be associated with all virtual worlds and one could even motivate a claim that digital worlds (as Chalmers sees them) are both a necessary and sufficient condition of virtual environments—fictional worlds on the other hand are merely optional addendums to the imaginative project of playing video games. This does not deal a fatal blow to Tavinor's previous account. It is still possible to say that the virtual (instantiated by real digital processes) is that which allows fictions to function as games without claiming that all virtual environments must be fictional. However, this blow is still critical in the sense that we have compelling reason to suppose that *there are virtual worlds* as opposed to merely considering virtuality as a property attributable to fictions.

Chalmers' account says interesting things about the notion of presence, of having a sense of really "being-there" at that perspective. If the virtual world of a video game is real (insofar as it is a composite of objects, properties and events, all of which Chalmers argues to be real), then any feeling of presence that one experiences is quite natural. Furthermore, it is not merely that one feels present, but it could be argued that one in fact *is present*.

§ Understanding Virtual Environments IV — A Quest for Action

The final account which I will examine here has been proposed by John Richard Sageng and emerges out of his methodological concern that many accounts of video games assume a notion of 'virtuality' from the outset. His account will serve as the most decisive proof that one does not require a notion of virtuality or virtual worlds to analyse video game play. He asserts that common conceptions of video games rest on sloppy ontological intuitions concerning the status of the virtual as a new category somewhere in-between the real and the fictional. Sageng perceives this strategy as flawed insofar as it treats virtuality as a kind of hidden premise in video game theory—or in the parlance of video games, a kind of cheat-code—as opposed to a category which emerges naturally from the rejection of the categories *real* and *fictional*. Furthermore, he considers that the insertion, or superimposition, of the term *virtual* or *simulatory* (and so forth) to be useless because such terms have little explanatory power. In his own words:

> If we say that the player performed a virtual running, killing, rape and the like, we are left with a corresponding uncertainty with regard to how we should evaluate the actions. Is a virtual killing right or wrong? Is a virtual theft permissible or not? It does, of course, not improve the matter to put the "virtual" modifier in front of the evaluations themselves, since we do not know what it means for something to be virtually right, wrong or permissible. Also, if we are inclined to say that a person is skilfully performing an in-game F'ing, is he supposed to be virtually skilful in performing an F'ing, or is he really skilful in performing a virtual F'ing? (2012: 226)

Instead of seeking to identify the ontological character of video games through analysis of the concepts of fiction and the stipulation of the virtual, Sageng adopts an approach which focuses

on the action-reports of individuals who play video games and draws inferences from their semantic features. What he means by this becomes clear when he attempts to give literal specifications of in-game action (such as: *Paul opened a door in Everquest,* or more precisely: *P performed an F'ing*).

At first he tries to account for player action in terms of intentions to produce pictorial representations (formulated as: *P, by clicking the controls, carries through an intention to produce a representation of an F'ing*) which he dismisses on the basis that the actions which players report seem to linguistically commit us to reports of causal relationships between a player and reported happenings within a game, which in turn, he contends, gives rise to stronger commitments to ownership (of an F'ing) than that for which such an account allows. Consider the player who plays the online death-match game, *Quake 3: Arena* (Id Software: 1999) and skilfully scores a head-shot against an opponent with a rocket-launcher (a feat which is renowned for its difficulty). In such scenarios it seems as though players intuitively conceive of themselves as actually accomplishing such a feat instead of simply producing a representation of such and merely imagining it to be the case. Similarly, if an in-game item (purchased with real currency) is stolen from one player by another it seems intuitive to suggest that a player does not consider this to merely have produced a representation of theft which they then imagine to be opprobrious but rather to constitute actual theft.

Afterwards, Sageng tries to account for player action in terms of intentions directed at producing virtual happenings or virtual *F'ings* (formulated as: *P, by clicking the controls, carries through an intention to reproduce the effects of an F'ing*). By this point Sageng's distaste for the virtual is already known but it is worth mentioning his further objections which come in the form of a dismissal of the commonly held view that "the virtual" acts as some kind of

transmedial counterpart for a real happening. Sageng does not see how things like virtual shootings reproduce the same-effects, or stand-in for, real shootings to any extent. He goes on to criticise the motivation which scholars have for introducing the term in the first place:

> If it is the case that the notion is called for simply because we are uncomfortable with calling the players F'ings either "fictional" or "real", then it seems that the term "virtual" really is used to postulate a kind of existence that is meant to accommodate this fact. Sometimes words are used to provide an explanation, and other times they are used to stand in for an explanation. In the latter case we are left with the problem of what the word means, which is not much progress. (p. 227)

Instead of retreating behind the illusion of security provided by notions of virtuality Sageng decides to treat the action reports of gamers as literal; going so far as to state that the class of actions which they perform are "very real and identifiable actions" (p. 229). Sageng thinks that the element of control and ownership in player interaction, as exemplified by the semantic features of player action-reports, shifts one's intentional object from the pictorially represented to a graphical environment with which a player can causally interact. The kind of actions which belong to these graphical environments he calls c-actions (formulated as: *P, by clicking the controls, carries through an intention to produce a C-F'ing*) or "graphical actions" which he believes to avoid the complications of any separate ontological categories such as virtuality as said graphical actions, and their associated graphical environments: "straightforwardly belong to the ordinary physical world." (Ibid)

Furthermore, he claims that while these graphical environments offer action types (c-running, c-shooting and so forth) that often differ from those available in our ordinary surroundings, the conditions of agency are exactly the same as in any other environment. This latter comment about the conditions of agency, and the finer details of how one's intentional object is shifted, will be considered in the next chapter, which *inter alia* deals with the notion of avatarial embodiment and how one interacts with, and becomes immersed in, virtual environments exactly. For now, let us satisfy ourselves with the knowledge that Sageng, akin to Chalmers, thinks that video-gamers interact with a real environment but unlike Chalmers does not see any need to classify said environment as a virtual one (or even a computational one).

§ Understanding Virtual Environments IV — A Quest for Immersion

Let us now quickly review the aforementioned claims about virtual environments (or a lack thereof) and decide whether or not, based on such insights, we have to commit ourselves to any particular definition in order to ground our own claims about immersion going forward.

The four previous accounts essentially make the following claims about virtual environments:

- Aarseth: *composite rule-based systems grounded in computer simulations in which fictional elements are optional, world building components.*

- Tavinor: *new presentations of fictions which function as games due to their virtuality and interactivity.*
- Chalmers: *real, digital environments empirically grounded in computer processes and accessed in a certain way, for instance via a VR headset.*
- Sageng: *virtuality is a product of misguided ontological intuitions. Players interact with a real, graphical environment in which C-F'ings are conducted.*

Broadly speaking these approaches have a common trend insofar as they all retain a core functionalist underpinning. Aarseth's functionalism appeals to how rules function within a computer. Tavinor's functionalism appeals to the basic virtuality and interactivity of games as a medium. Chalmers' functionalism (which he admits owes to structuralism) appeals to an argument from causal powers directly and Sageng's functionalism, much like Chalmers, appeals to causal intuitions regarding action reports. One way or another, though accounts may differ, it seems as though virtuality concerns function. This makes sense considering how VR technology, as apparatuses which are widely utilised, is itself oriented towards function.

So, we are left with the conviction that, whether video games are virtual worlds or not (and whatever said worlds may be) is unnecessary to simply understanding how immersion and a correlative sense of presence affect implicit speech/presupposition. This is because presence, although a sense of being-there in the world, does not track the concrete particulars of that world in an explicit or exhaustive sense. One is not required to have a complex, philosophical understanding of worlds and their ontology in order to feel a sense of presence. Presence, as a phenomenal state, is irreflective and pre-theoretical in nature. It is explained with reference to the phenomenology of perception, with reference to the vicissitudes of

embodied subjectivity and not with reference to scientific information about the world's parameters. A world, any world, is one in which we may feel present. Presence is not contingent upon knowing x, y, or z about the ultimate, absolute status of a world; one does not have to accrue enough data in order to qualify for presence as though certain aspects of human phenomenology, in video game terms, must first be unlocked. As we have observed already, consciousness is intentional, is in an inextricable tangle with the world. As long as I have a healthy body capable of feeling, I will be able to feel present. Whether or not this sense is veridical, whether or not I am *in actuality* present is separate matter to whether or not I can simply feel as such. An in-depth analysis of virtual worlds and their exact nature may well be essential for understanding the general veracity of presence, but as far as simply understanding *what it is like* to be present (and drawing inferences about implicit speech/presupposition on that basis), this requires only that we focus on the phenomenological facts of the matter. At least in this thesis.

CHAPTER 5 — Fictionally Speaking

The purpose of the last chapter was to assess whether or not categorizing video games as virtual worlds, whether or not classifying and understanding notions of virtuality (objects, properties and events), was necessary to understanding the influence that games can have via implicit speech/presupposition. Our initial intuition was that no such commitments would be made because the phenomenology of playing video games and being thusly affected requires no reference to the ontological status of video game worlds/characters. However, for the sake of due diligence we proceeded to analyse a broad range of ontological positions *vis-à-vis* "the virtual" because A) it would be foolish to assume the aforementioned from the outset without obtaining the requisite proof and B) the journey involved in reviewing said literature was bound to raise helpful insights and objections that we could carry with us irrespective of whether we wished to make any commitments to a theory of VR.

Throughout the course of the last chapter a particular point was raised a number of times which I will reissue here, namely that virtual worlds—as opposed to fictional worlds—were a better sort of general candidate for the kinds of worlds that video games are/convey. The reasoning behind this is still sound but it does raise the issue that, even though fictional worlds may not be the best candidates, the matter of fictionality dovetails with video game theory quite often. Much as with virtual worlds, we do not have any need to consider video games as fictions/fictional in order to motivate the phenomenological insights into immersion and that we have made hitherto. However, it would be bad faith of us to exercise due diligence where virtuality is concerned but then completely ignore the question of fiction, assuming

from the outset that it provides no insights or objections which may undercut or defeat this thesis. That would be poor practice indeed. Therefore, though it would be unnecessarily repetitive to ask: *is a particular theory of fictional worlds essential*? It is important to understand that theories of fiction offer an alternative explanation to what I am trying to assert in this thesis.

When it comes to the matter of influence, plenty of scholars, themselves interested in fiction, would be happy to assert that video games influence the player in their capacity as fictions—the latter of which are commonly understood to be affective in nature. However, when it comes to deeper claims of video games engendering bad habits, or those presented by feminist scholarship, it is not uncommon to meet resistance in the form of appeals to the unreality of video games. These appeals to unreality usually operate upon the assumption that the stories in games are works of fiction; that overtly-sexualised characters are not real women, they are merely fictional women and therefore we ought not to be concerned. This brand of populist journalism has been dismissed earlier in chapter one but something which has been left unmentioned hitherto is that the spirit of this claim finds root in academic discourse about fiction.

The unreality of fictional worlds/characters and the unreliability/illusoriness of fictional feelings pertaining to such has been a long standing debate. One strand is that fictional characters do not exist in the strictest sense. Some have even gone as far to amplify upon this by maintaining that since sentences including words with non-existent referents must be false, talk about such things is equally false, or at least incoherent. This position is problematic for two reasons. Firstly, as someone who is looking closely at the effects of implicit speech, it presents a potential worry to hear the objection that many video games, held to be

fictions, do not really say anything explicitly or otherwise. Secondly, as a Phenomenologist, I want to look at the action-possibilities in video games and at what they afford to the player in terms of proposition and presupposition. The idea that our engagement with fiction has its own distinct phenomenology, one which is redolent with the insights of individuals such as R. M. Sainsbury in the first chapter, raises slight concerns about the direction of this thesis from a strategic perspective. More on this soon.

Another strand of discussion holds the opposite, that fictional worlds/characters are in fact real in some way and that one's feelings towards fiction are perfectly sensible and, by a similar token, perfectly influential. Under this account, it would seem parsimonious to ignore implicit speech altogether and vie for a theory which understands video games as fictions—the latter of which are understood by general consensus to be affective in nature. From here I could argue something along the lines of fictional engagement deepening immersion and therefore deepening what we export beyond the fiction (etc). So to repeat myself, the question becomes: have I taken the wrong direction, especially considering that, dialectically speaking, there was already a natural path for me to explore?

After more than a cursory glance, it seems to me that both of these objections are not problematic at all. For instance, Langton and West's understanding of how speech can influence score is not contingent upon the logical status of referents and the metaphysics of fiction. Instead, it is contingent upon social norms regarding presuppositions generated through media consumption—a process which depends on relative power structures and not the ontological status of fiction. Explicit speech which is incoherent may generate resistance, but implicit speech is more covert. If one does not notice something, one can hardly balk at how incoherent it is. As for fictional feelings, that also seems to present no issue. It not only

seems to serve as supplementary support for my findings but also ignores the main element of export/immersion present in video games—motor-intentionality. The body physically swerving left and right is a very different kind of evidence than can be generated by engagement with most fictions and therefore treating video games as their own branch is salient. Even if fictional feelings do influence the player in a manner consistent with what I am suggesting, they will not do so in the exact ways which I am suggesting and therefore, at best, such an account simply exists alongside my own.

However, it is easy to say such things in summary but much more difficult to hold to such a position in the face of an in-depth dive into the literature. Therefore, to ensure that no obstacles remain, let us look at video games as fictions, sincerely adopting the position with the hope that any insights/objections yielded will, as we predict, be of no ultimate concern. Once this is done, we will have removed the two most common ways of looking at video games (virtually and fictionally) and all that will be left is the video game itself, standing alone.

§ Fiction and Video Games—A Presumption

As an aside, it is crucial to mention that one of the ultimate purposes of this chapter will be to compare and contrast accounts of fiction against video games. However, in the name of methodological clarity I feel that I must declare that we will be making a few assumptions in this chapter. The first assumption is that it is sound to apply the insights of the forthcoming scholars to video games straightforwardly even though most of them never addressed video games specifically, which seems *ad hominem*. The reason I have made this assumption is

twofold. Firstly, the method of analysis for many of these scholars is quite linguistic. They examine statements/propositions which emerge throughout the course of fiction and apply various philosophical toolkits to said statements in order to generate new theoretical approaches. Since the kind of statements with which they are concerned are commonplace in video games, I will be adopting a kind of paraphrase strategy when it comes to their observations, substituting their own examples for what I believe to be sufficiently similar examples pertaining to video games. Secondly, these scholars often focus on certain characters from fiction and since there are also characters in video games, it seems fair to make a conflation of sorts.

The second assumption is that it is sensible to treat video games as though they are fictions in order to see what results this experiment yields in the absence of any proof to this effect. The reason I am secure in this assumption lay in the fact that since I am confident that video games do not need to be treated as anything other than simply video games in order to make interesting phenomenological points, the damage which this assumption can deal to my thesis is trivial even in the event that it is erroneous.

The final assumption, which is a big one, is that we know what fictions are. At no point during this thesis have we settled upon a definitive definition of fiction. Instead, we have operated upon a series of charitable, and commonplace, assumptions. I will be assuming throughout the course of this chapter that the various scholars have some inkling of what fictions/fictional worlds are even without explicit definition. I am therefore confident in the assumption that we are talking about fiction, or at least something within that ballpark as opposed to a completely different phenomenon.

I make all of these assumptions for the sake of brevity because there is not room within this thesis to provide an exhaustive definition of fiction. Even a tentative one might end up being more laborious than anticipated, such is the nature of Philosophy. Therefore, I use this assumptions in the spirit of a short-cut, hoping to zoom in on what matters most to this thesis without having to adjust all the various dials and settings. Perhaps I court disaster but at the very least I do not feel that these assumptions, even should they be unsound, could possibly defeat the overall claims of this thesis.

§ Video Game Theory—Fictional Worlds and Fictional Feelings[62]

When playing *The Legend of Zelda: Breath of the Wild* (Nintendo, 2017) it is not only supposed to be the case that 'a virtual person rides a virtual horse across a virtual field while they fend off virtual enemies', it is also supposed to be the case that 'Link rides his steed across Hyrule Field while he fends off Moblins.' Furthermore, due to the immersive nature of video game play and the incorporation of avatars into an agentive framework, it also tends to become the case that '*I* ride *my* steed across Hyrule Field while *I* fend off Moblins.' The video game, as a fiction, is designed with me (a player) in mind. It is tailored to my experiences, composed to suit my needs and satisfy my desires. It is not a magical accident that I become Link; this incorporation is anticipated and encouraged by the developers. The interactive fictional world in question is very much a deliberate series of events which places me at the centre. Unlike the author of a novel or the director of a film, the developers of *The Legend of Zelda* want me

[62] This latter phrase will be used to broadly cover all responses to fiction which involve emotions or feelings of any kind.

to assume a central role; want me to adopt the mantle of protagonist; want Link and I to form symbiosis through play in order to fully enter the fictional world which they have meticulously crafted for me to explore.

This raises age old concerns about the ontology of fictional entities. If I am allegedly assuming the role of Link—immersing myself in his perspective and emotionally responding to his experiences—then what is Link precisely? What entity exists (or what adequate referent is there) such that my beliefs/feelings/conversations about Link are sensible? If Link does not exist then it would seem as though I cannot incorporate him into my agentive framework. If Link does not exist, then surely, I cannot be happy or sad for him. If Link does not exist then I cannot ascribe him with values of heroism and courage in any sound manner. Most importantly, if Link does not exist, surely the game cannot *say* anything about him.[63] Even in spite of the common intuition that fictional characters like Link do not exist, people often engage in discourse about fiction without any feeling of incongruity because there is also the intuition that such speech is sensible. I do not feel like I am committing error or suffering delusions when I talk about fiction, or engage with the fictional worlds that some video games present. Link's connection to me seems self-evident and any feelings I have *vis-à-vis* Link seem perfectly natural. Such has always comprised the psychological gamut of my relationship with fiction as a whole.[64] Therefore, on the basis of these strong intuitions, and an unwillingness to surrender them without good reason, I am motivated to search for answers.

[63] How can Princess Peach's demure, petite demeanour *say* anything pejorative about women, explicitly or otherwise, if she does not exist and the words do not mean anything?

[64] I do not believe it too much of a stretch to conjecture that many people feel the same. If this were not so; if people's expectations and experiences were so incommensurably dissimilar and unpredictable, it would be impossible from a designer's perspective to create a coherent and relatable experience for any but a select few at a time.

Some immediate questions which seem to bear close connection with the matter of what fictions say are: *what is a fictional world/entity* and *are fictional feelings sensible*? If we zoom in slightly, we can look at statements such as 'Sonic the Hedgehog can run at the speed of sound.' Many video gamers will argue that this is true and yet many would also maintain that 'Sonic does not exist' so how can it be true that he runs at such speed? It seems as though the common adage regarding Bertrand Russell and the *present King of France* applies quite strongly to talk about fiction. A common retraction perhaps will be to assert that the aforementioned kind of statement is true *in the fiction* but this makes things even less clear. Many would argue that fiction is something that is not real and that therefore what fictions say is not true. A fictional world is one that is seemingly populated by falsehoods and so how can we make sense of what video games say in such a way that it alters conversational score or human belief/behaviour? Indeed, if fictions are merely populated by statements akin to the aforementioned one posed by Bertrand Russell, then surely it is uncharitable to assume that a player would export it. Instead, what we need to do is show that fictions can say many different things in numerous different ways. Naturally, at this juncture, it is probably quite cogent to review the philosophical history of this debate.

I will begin this review by focusing my attention on those aspects of the debate which deal with the ontological status of fictional entities *or arguments akin to this* before proceeding to tackle the matter of one's emotional responses to fiction. The first will reveal that no understanding of this kind presents an obstacle for a theory of implicit speech/presupposition. The second will expand upon what it is actually like to respond to a fiction by exploring the phenomenological context in which implicit speech occurs, showing parity between the two. Subsequent to this, I will conclude this section by adapting Peter Ludlow's contextualist approach and marrying it with Langton and West's adaption of the rule

of accommodation. The reasons that such a marriage is so attractive are twofold. Firstly, Ludlow's approach is one of the few theories of fiction which does not fall apart to some extent which applied to interactive, immersive video games. Secondly, a contextualist approach supports the rule of accommodation in a very attractive way: it allows us to escape from fictionality through that very same fictionality whilst also supporting our own approach, thus making the pursuit worthwhile.

§ Video Games I—Fictional Objects

For many, the seminal article to consult as an entry point into this progressive dialogue about fiction is found in Peter van Inwagen's aforementioned essay: *Creatures of Fiction* (1977). During the course of this paper, van Inwagen sets about the task of assessing the prevailing trends surrounding the ontological status of fictional entities. In particular he looks at the traditionalist perspectives of the Meinongian and (he coins a term) the Anti-Meinongian. The former position, in his analysis, holds that where *F* is a fictional entity, we can sensibly talk about *F* because *F* does have a referent. However, the referent of *F* does not exist. In addition, the Meinongian holds that "there really *are,* certain objects that have, among their other attributes [...] the attribute of non-existence." As such, one might say that *F* is a non-existent but sensible object. In contrast to this position, the Anti-Meinongian holds that *F* does not denote anything and therefore, in using *F* in a sentence, one does not "succeed in giving an example of *anything*, much less something non-existent." In the context of video games, the Meinongian doctrine is such that *Sonic the Hedgehog* is a name for something but that something is a non-existent object. The Anti-Meinongian doctrine is such that *Sonic the*

Hedgehog is not properly a name for anything and so fails to have any meaningful use in language. van Inwagen on the other hand breaks from these trends and spearheads the possibility that *F* is a name for something which exists. In terms of fictional entities, he writes famously: "I shall defend the thesis that there are things I shall call "creatures of fiction," and that every single one of them exists." (1977: 229)

For van Inwagen, to say that fictional characters exist is simply to grant that there are such things within a fiction. He writes: "let's grant for the sake of argument that there are such things as characters in novels; What do you mean by saying they *exist*? *Answer*: just what you granted and no more." (1977: 302) Furthermore, to be *such a thing within a fiction* is simply to be a theoretical entity of criticism. To paraphrase van Inwagen's example for my own purposes,[65] one might say the following things:

- There are characters in some 00s video games who are presented with a greater wealth of emotive detail than is any character in a 90s video game.
- Some characters in video games are closely modelled on actual people, while others are wholly products of the imagination, and it can sometimes be impossible to tell which characters fall into which of these categories by audio-visual analysis alone.
- Since 90s video game developers were, for the most part, cis-hetero white males, we might expect most video games of the period to contain stereotyped, comical LGBT+ characters; but very few such characters exist.

[65] The grammar and strategy of the example have been preserved but the context has been shifted from novels to video games simply for the sake of coherency. Original examples found 1977, p. 302-303.

For van Inwagen, such statements exist in the context of fictional criticism and if we want to say that these kinds of statements can be true then there must be entities of a certain type, entities which are never subjects of non-fiction discourse, which comprise the theoretical framework of fictional criticism. In terms of quantifying over these fictional entities (a project which van Inwagen sees as crucial) he appeals to a three-place ascription relation which has fallen under much criticism in the following decades. He proposes *A (x, y, z),* where *x* is a property, *y* is a character and *z* is the literal place in the fiction where we encounter A. For instance: *A (quickness, Sonic the Hedgehog, level 1 of SEGA's 1991 video game)* or in his own example: *A (fatness, Mrs. Gamp, chapter XIX of Dickens' novel Martin Chuzzlewit)*.

It seems then, in van Inwagen's doctrine, that fictional feelings are perfectly sensible things which arise throughout the course of theoretical criticism. As determined by the ascription relation, fictional entities do in fact exist and so to speak of them is perfectly sound provided that it is in the context of theoretical criticism in perhaps the broadest sense. If we claimed to be sad when Aerith is slain by Sephiroth in *Final Fantasy VII*, we are simply saying that *A (slain by Sephiroth, Aerith, end of disc 1 in Squaresoft's Final Fantasy VII)* is the time at which the emotion was experienced.

If one was to amplify upon this a little bit more, then we might say that exporting speech into a wider belief system is also perfectly sensible. To export, for van Inwagen, is simply to take a given ascription relation (like the kind listed above) and apply it within the context of theoretical criticism. In fact, there is a purity in van Inwagen's vision in that he manages to position things such that merely talking about *Sonic the Hedgehog* in a theoretical context stands as evidence that the correlative ascription relation has already been exported. However, if we were to consider the example of Wade, then we could say that the contents of

his ascription relations are guided by his presuppositions such that the contents of **A (x, y, z)** follow the rule of accommodation and end up being applied beyond the scope of theoretical criticism. In this sense, export is borne out by inferences that Wade draws between theoretical and non-theoretical contexts.

Numerous scholars have pointed out the difficulties faced by this theory in the decades since but I am not going to direct too much time to that discussion here. Needless to say, van Inwagen's project is aimed primarily at providing us with the tools to speak sensibly about fictional entities. It does not actually itself touch upon the question of what makes fictional feelings or export sensible. It should also be noted at this juncture that, during the review of van Inwagen's doctrine, an insight rears its head. Namely that, knowing the status of fictional worlds or fictional entities is not necessary to a theory of exporting speech. It seems to me as though one could be a complete sceptic about fictional worlds and yet still vehemently maintain that export is possible so long as a player at least pretends certain things about fictional worlds and what they say.

§ Video Games and Immersion III—Fictional Feelings as Pretence

Questions like *why do we feel sadness in response to a fictional character's plight*? and *are the emotions generated by fictions veridical*? have plagued thinkers since the times of Ancient Greece. For scholars such as van Inwagen, providing a logical basis for existence claims about fictional creatures can be a step towards situating, and rendering coherent, the way we talk about our emotional responses to, for instance, the death of characters in fiction.

This discussion has a rich history with scholars such as Kendall Walton, Ralph W. Clark, Harold Skulsky and Jerrold Levinson (to name a few) who all forward their own proposals.[66] One of the most seminal approaches comes from Kendall Walton, known most notably for his contributions to *Fictionalism*.[67] Walton argues that cases of emotive responses to fiction are to be understood as *pretending belief*, such that if one seems to feel genuine fear while playing a video game, one is actually making believe that one is afraid which generates what Walton calls "quasi-fear."[68] Quasi-fear shares many of the properties of genuine fear. One's muscles tense; one sits on the edge of one's seat or grips the arm of one's chair; one's pulse quickens; one's adrenaline flows. This list is not exhaustive but clearly describes a very intense fear-like experience. For Walton, the intensity of the experience is not in question but even despite its proximity to fear (its fear-adjacency if you will) Walton maintains that there are crucial ways in which one's experience differs from that of genuine fear. Using the example of Charles, a horror movie-goer, he writes:

> The fact that Charles is fully aware that the slime is fictional is, I believe, good reason to deny that what he feels is fear. It seems a principle of common sense, one which ought not to be

[66] These scholars in particular have been selected because there is a notable narrative of progression wherein each not only responds in some way to van Inwagen's claims (hence his place in this chapter) but also to each other by proposing radically different alternatives. To my mind, it is one of the most succinct selections to peruse if one wishes to review in detail the history regarding responses to fiction/feelings towards fiction. Naturally other scholars have talked about this topic and will deserve a mention but the above mentioned exemplify what I consider to be a notable pattern within philosophy.

[67] In particular Walton's Fictionalism concerns things like negative existentials, identity statements, propositional attitude reports and fictional characters.

[68] Scare quotes introduced by Walton for reasons unknown. Surely if one wished to cast doubt on the legitimacy of said fear then appending the quasi modifier is sufficient?

abandoned if there is any reasonable alternative, that fear[6] must involve a belief that one is in danger. Charles does not believe that he is in danger, so he is not afraid. (1980: 7)[69]

One might object at this juncture that there are reasons to think that Charles does in fact belief that he is afraid, part of which are extant in his physiological responses to the fiction. Walton parries this kind of objection by appealing to Charles' patterns of action and the disparity which arises when comparing said patterns with such a belief. Walton writes that Charles knows there is no threat because "if he didn't, we should expect him to flee the theatre, call the police, warn his family" (Ibid). Since he does not undertake any of these actions—actions which themselves serve as reliable accompaniment to genuine fear—we have good reason to suggest that what Charles experiences is different from genuine fear. In addition to this, Walton dismisses the idea of a suspension of disbelief or a partial belief on the grounds that "even a hesitant belief, a mere suspicion, that the slime is real would induce any normal person to consider calling the police and warn his family" (p. 8). Since Charles *does not even consider* this course of action, we can be assured that he is perfectly certain as to the slime's fictional status.

Thus it is that Walton proposes a Fictionalist theory wherein Charles, perhaps motivated by his state of quasi-fear, plays a game of make-believe with the images on screen. While playing this game Charles belongs to a fictional world wherein certain propositions are treated not as true or false but as fictional. Walton writes:

[69] The footnote partway through this citation is originally Walton's. Due to the nature of citation, I could not aptly transfer said footnote but have preserved its position in the text and will now relate its content here, verbatim: "By "fear" I mean fear for oneself. Obviously one can be afraid for someone else without believing that one is in danger himself. One must believe that the person for whom one fears is in danger." (1980, p. 7, footnote 6)

> Charles plays a game of make-believe with the images on the screen. And the world of his game needs to be distinguished from the world of the movie itself. The world of the game includes fictional truths generated by the screen images, but it includes also fictional truths generated by Charles and his relation to the images, among them fictional truths about Charles himself.
>
> (1980: 11)

One of the fictional truths about Charles himself might be 'that he is in a state of fear' which is generated by Charles' relation to the images (in this instance, one of quasi-fear). Fictional truths like this are situated within the context of the fictional world to which Charles belongs when playing said game and, for Walton, this picture provides satisfactory explanation for Charles' behaviour. However, consider that within the game, Charles' make-believe fear is itself motivated (or perhaps guided) by Charles' relation to the images; his quasi-fear. The question arises as to what generates this quasi-fear? The answer, at least in part, is going to be the film in question because if this were not the answer then we should lose all sense of understanding the game of make-believe which Charles plays with himself. The problem here arises that if one acknowledges that the film, and that which it depicts, has a certain affective power over the subject then one is already painting a very traditional picture.[70] It seems as though, in Walton's account, quasi-fear is a placeholder for genuine fear in almost all respects except those relating to patterns of action. However, would it not be more parsimonious to simply state that Charles experiences genuine fear but that, as a rational adult, his fear is

[70] If a film can affect the subject in the way Walton describes, i.e., in a physiological manner consistent with the physiology of fear, then it seems, at least partially, to be a traditional stimuli-response theory of the representational arts.

mitigated by the circumstance in which it arises? For Walton, the fact that Charles' alleged fear does not prompt him to act in certain ways is sufficient to disregard said allegations. However, Walton provides no sound reasons to support the notion that *not X-ing* (where X is a set of actions congruent with those described by Walton) means that it is not fear in all contexts.

Perhaps the part of Charles' brain which generates fear (the Amygdala) is actively sending such signals but because of the context of this fear-stimuli (i.e., the cinema), said signals are not accompanied by instructions from the Frontal Lobe (the part involved with reasoning). If the Amygdala sent fear-signals while Charles was actually being chased by a monster then it is likely that any instructions from the Frontal Lobe would align with the picture which Walton thinks must obtain in all instances of fear.[71] The point is, there are many ways to understand fear as being genuine without its being accompanied by the kinds of actions which Walton describes, which gives one reason to suspect the veracity of his doctrine *vis-á-vis* emotional responses to fiction.

The main issue for me is that I wish to argue that Charles (to adopt Walton's example) is *really* afraid.[72]That the world of the video game legitimately offers certain opportunities for action because that is where my acting self is located. It is very much my world and what I perceive, and what it encourages me to feel, are not quasi-versions of said feelings. The body is always postured towards its tasks and any knowledge which pertains to said tasks is also part and parcel of my embodied subjectivity. If I am present in a video game, located at a

[71] I am not positing any kind of mind-body duality here. It is however almost impossible to talk about the brain in the parlance of neuroscience without inviting linguistic challenges. The ultimate point is that there are ways of viewing fear as genuine without assuming Walton's patterns of action.
[72] Granted Walton does admit that fictional engagements can lead to full-fledged emotion, but I want to argue that the initial contact can be real, not merely that it is foundational of something real.

perspective offered by its world, then I do not need to make sense of Charles' physiological responses with reference to what he thinks at all. His fear response, though genuine, is not a cognitive matter at all. Rather it is a matter of perception, of the body responding in an authentic and irreflective manner to its intentional environment. Granted Walton speaks of filmic experience which does not involve the agency and interactivity of video games but the point is that even if video games are fictions, and even if the fictional world I inhabit is imaginary, this does change the phenomenal character of my feat response, such that there is any need to consider it quasi-fear. As we will see momentarily when we examine Ludlow's account, feelings operate differently in different contexts.

Furthermore, though we are trying to take the question of the fictionality of video games seriously for the sake of rigour, it is worth pointing out that Walton's pretence account does not challenge our claim that heightened immersion in video games can increase the tendency for presupposition vis-à-vis implicit speech. This is because simply observing, for instance, that video games ask us (even implicitly) to pretend that such and such is the case does not remove the possibility that some implicit speech operates even below this level, serving not to generate pretence but to presuppose new norms. In addition, simply pretending that something is the case does not itself mean that the presuppositions generated by that pretence cannot be exported into the actual world.

Admittedly, this is potentially an uncharitable perspective to take on Walton, who has made clear statements that our engagement with fictional worlds does not in any regard cease our involvement with the actual world. In the course of *How Remote Are Fictional Worlds From the Real World*, Walton discusses transmission between the world of make-believe and the ordinary world, using audience participation in theatre as an example (1978: 21). Consider

the similar example of LARPGs (Live Action Role-playing Games) wherein players physically embody their characters, repurposing real environments such as Scout camps for the purposes of a wholly different fiction, adapting to any incongruities with theatrical ingenuity. The point is that not only can the actual world be assimilated into the fiction, but the presuppositions generated throughout the course of these games must cohere with and transpose to the actual world to some extent—to assume otherwise would be folly which Walton himself admits (Ibid). Furthermore, Walton makes a clear statement that quasi-emotions can become full-fledged emotions, even stating that a person's "emotional needs may require the therapy of several or many repetitions" (1980: 18). What Walton means is that much as our emotional responses to fiction can atrophy over time, so too can they mature, dovetailing with our lived experience to become something authentic. Finally, it is important to note that Walton does not only cite patterns of action in defence of his rejection that fictionally-directed affect is full-fledged emotion. For instance, in the case of Charles, he refers to the failure of the belief conditions which would obtain were a person to genuinely fool themselves into forming beliefs about fictions. He writes, "except in the rarest circumstances, readers and spectators are not deluded." (1978: 21)

The point is that there are in fact many ways to see Walton in a more charitable light. Walton's insights, viewed this way, do not detract from this thesis but rather may well enhance it should other scholars choose to undertake such a comparison. However, it is still worth noting that in certain instances where Walton considers Charles to be *fictionally afraid*, it is instead possible to consider Charles as *actually afraid* and circumvent Walton's objections by appealing to the notion of context—i.e., that the shape of actual fear (and its belief conditions/patterns of action) looks different in the context of the cinema. Perhaps at this juncture a versatile Waltonian will argue that this kind of contextual fear is covered by the

fictional operator (in fact described by it!) but this does not seem parsimonious. Context is already understood and fear is already understood; if the fictional operator does not modify either of the aforementioned, what role does it serve? A question for a more advanced Waltonian than myself. Suffice it to say that the objections have been considered and, whatever the Waltonian stance in particular, it is not a necessary appendage to the claims which I wish to advance henceforth.

§ Video Games and Immersion IV—Fictional Feelings as Imperatives

One of the strongest and most unique objections to Waltonian theory comes from Ralph W. Clark's 1980 essay *Fictions: Talking About Them and Having Feelings About Them*. In this seminal work, Clark writes that there are a number of compelling reasons to take sentences in a work of fiction as imperatives expressed elliptically.[73] In his words:

> First, doing so provides what is, as far as I can tell, an unproblematic defence for the view that sentences in a work of fiction have no truth value. Whatever else one may say about the intentions of a storyteller or novelist, one must at least acknowledge that he wants his readers or audience to think what the world would be like if X, which is not the case, were the case. A storyteller could not coherently say, "please understand my story, but do not attempt to think what the world would be like if any contrary to fact circumstance obtained." (1980: 342)

[73] His position on fictions belonging to film or video games is somewhat modified and will be discussed shortly.

For Clark, a sentence such as 'Sonic the Hedgehog can run at the speed of sound' expresses an implicit imperative, the particular linguistic expression of which might look like this: 'Think what the world would be like, contrary to the way it actually is, if it contained a Hedgehog named Sonic who could run at the speed of sound.' Conceiving of sentences in this way is, in Clark's mind, not only a minimal requirement for taking them to be sentences in a story but also *the only thing* which one needs to take them as being at all. For Clark, "there is no need to give a more complicated account. For example, there is no need to suppose that a storyteller wants his reader 'provisionally to believe' anything or to 'suspend disbelief.'" (1980: 343)

Another reason which motivates one to adopt such an account is that the ability to think, or even believe, that which is contrary to fact is a trait which the vast majority of human beings share. Therefore, it would seem to be an intuitively-appealing account. He writes: "Since the ability to think what is contrary to fact is such a basic human ability, the view that sentences in a story are elliptical imperatives [...] helps to explain why story-telling appears to be such a natural human activity and why it is found in all human societies." (1980: 343)[74] The third, and perhaps more controversial reason, to treat sentences in a story as elliptical imperatives is that it enables one to view a story as a kind of event, thus freeing one from the need to provide an account for a story as an entity.

It is not entirely obvious why Clark is trying to sidestep this ontological demand since he does not go into detail about the differences between storytelling (i.e., a story which is told) and a story itself—the latter of which he seems to be assimilated into the former without

[74] The ellipsis is my omission. It encompasses the phrase '*of the sort I am describing*' but we already know this since Clark is describing his own theory. Therefore, I redacted said statement for the sake of brevity.

explanation. *Prima facie* it seems as though one of the advantages to Clark's theory is that it provides one with a basis for such ontological demands because one would naturally assert that a story's nature is inextricably linked from its telling/consumption. Clark touches upon this himself: "The concepts of telling a story or thinking a story through to oneself are, it seems to me, the basic concepts, while the substantive concept of a story is derived from them. A story comes into existence when it is first thought through..." (Ibid). Surprisingly however, Clark abandons this line of reasoning, instead citing his theory as a means to avoid tackling such questions. This strategy is not problematic for his conclusions but it is somewhat surprising to the reader and worthy of note going forward.

Let us come now to the case of film. Clark maintains that we can consider fictional movies to be prefaced implicitly by an imperative of the following sort: "Think what the world would be like if, contrary to fact, it contained the following sorts of people, places, and events; pictures (in place of the descriptive phrases of a story) will tell you what the people, places, and events would be like." (1980: 347) Since video games were in their infancy at the time of this essay (*Super Mario Bros* had yet to be released!), Clark's omission of them can hardly be considered deliberate. Since there seems to be enough overlap between the visual aspects of film and those of video games—and since there appears to be no specific reason to resist such a notion—I am content to apply Clark's insights to video games as well.[75] Henceforth, I will discuss Clark's thoughts in line with video games but the reader should note that his original focus was that of film.

[75] They are both visual media which, by and large, adhere to common narrative tropes such as linear storytelling, archetypical characters, act-based structuring and protagonist-antagonist binaries to name a few.

Coming back to Walton's example of the slime, Clark counters this position by claiming that whereas it could be the case, it certainly need not be so. For Clark, it is much more parsimonious to assert that "entertaining certain counterfactual suppositions - such as thinking what it would be like if the green slime were taking over the world - does, or is likely to, produce feelings of fear" (p. 347). To further discourage any Waltonian notion of pretence, he argues thus:

> Consider the parent who, suddenly, thinks to himself what it would be like if his child were kidnapped. The parent will have feelings of fear and perhaps grief. This can easily be so even if the parent does not believe that his child will be kidnapped. But it would be grotesque to suppose that the parent actually pretends to himself that his child is kidnapped. The objection may be raised that the parent fears his child's kidnapping because he believes that it could happen, but that the movie watcher believes that the green slime is impossible, yet still fears it. But consider: think to yourself what it would be like for your child or someone else you care for very much to have a rat's head in place of his own or to have some other monstrous transformation that is as impossible as the green slime. Such a thought is horrible, and produces unpleasant feelings. No doubt, the feelings are not as intense as those produced when you watch certain horror movies. But then, the unpleasant thoughts which you have regarding your child or someone else you care for are not developed and made vivid the way the story in a horror movie is. If they were developed (by someone else, we can suppose!) and made into a movie, and you saw the movie, you would not need to pretend that anything is the case in order to have extremely unpleasant feelings. (2008: 347-348)

Similar to Walton, Clark's account aims to avoid the supposition that we have psychological attitudes toward fictional entities. It does so by using a paraphrase strategy to sidestep instances of fiction which appear to denote fictional entities. For Clark, video games do not express propositions but rather their explicit set of audio-visual data is a means of expressing imperatives elliptically. When playing *Outrun 2006: Coast 2 Coast* (2006, SEGA), digital objects, presented virtually within the video game's engine, appear in a certain way[76] such that we acquiesce to the imperative *imagine that the car is drifting around a tight bend at top speed*. Furthermore, since our own inputs generate these changes within the virtual environment, the imperative can easily transform into that of *imagine that you are drifting around a tight bend at top speed*—which is consistent with what a gamer may often report if someone were to ask them, in the moment: what are you doing? It also explains the aforementioned shifts in motor-intentionality such as swerving one's body. One accepts an imperative and that is a minimal requirement for such an outcome. In this picture, one does not need to pretend that anything is the case. This account also has certain parallels with Langton and West's account. Speaking authoritatively is easily understood through the lens of imperatives.

For Clark, the example of swerving one's body is evidence for the claim that one *has* entertained certain counterfactual suppositions and that through the simple act of doing so, one has generated an authentic response. If we plug this into our own account, exporting implicit speech becomes something which is measured by the extent to which one has entertained counterfactual suppositions, themselves most likely dovetailing with and

[76] To my mind, to appear in a certain way is to appear in such a way that the kind of aforementioned fictional considerations obtain and are attributed to the virtual object in the same way that one might attribute them to a sentence when reading a novel. Much as sentences are the basic building blocks (or delivery mechanism if you will) of literature, so are virtual objects the basic building blocks of video games.

facilitating presuppositions which alter score. Now imagine, in the example of Wade, that the vast majority of fictions that he consumes are all issuing him with the same imperative (one that tasks him to imagine what the world would be like if women were such and such). It is not so unreasonable to assume that Wade would reach the extent where the counterfactual suppositions that he is entertaining are no longer limited to his engagement with the fiction (especially if he has insufficient life experience against which to contrast such things). This picture is not in conflict with Clark's account. As a matter of fact, by eschewing any attempt to understand stories as entities and instead considering stories as events, we are perfectly equipped to understand how Wade, having been subjected repeatedly to the same kind of speech-events, comes to behave in certain ways. After all, it is not controversial to understand human beings (their beliefs, desires, behaviour and so forth) as being shaped by the events in their lives.[77] Furthermore, without an ontological distinction to bracket or insulate fictions from 'real life', there is no sense in which said event is not a part of Wade's life in an ordinary sense. His responses, therefore, are quite ordinary indeed.

At this juncture it might seem as though I have every reason to abandon my current strategy (one focused on presuppositions which, as per the rule of accommodation, modify the conversational score) and instead adopt Clark's imperative account because it seems more parsimonious. I will grant that there are advantages to Clark's account which make it seem attractive but I simply cannot overlook the fact that for Clark, the aforementioned counterfactual suppositions will apply mostly to what is explicit within fiction whereas our claim is broader. Once again, I cannot express this strongly enough, implicit speech is often so embedded within a context of wider norms that it becomes almost invisible. Even on the most

[77] In this sense, one might argue that there are significant parallels between the account which I am building and a cultivation perspective. Something for another paper.

basic level, it is far too generous to assert that I can entertain counterfactual suppositions relating to things which I have presupposed to be the case. This is not to say that one cannot consider fiction in such a way under my account. It is perfectly sensible to suggest that fictions contain elliptically-expressed imperatives which prompt us to entertain counterfactual suppositions whilst also maintaining that, in being asked to do so, one is unwittingly sensitive to the implicit aspects of said imperative(s) and will, as part of their counterfactual reasoning, generate presuppositions which will modify the conversation score in pernicious ways.

As for the matter of eschewing any kind of propositional account (to which I myself adhere in an albeit limited sense), it is to be acknowledged that this is an attractive move. It allows one to avoid the complexities of determining the truth-values of statements in fiction because imperatives do not operate in that fashion. As noted above, this move does not necessarily stand as an objection to my account because my commitment to propositions does not relate to whatever propositions may be contained within the fiction but rather propositions generated by one's own presuppositions. One can still maintain that fictions have no propositional content, that they express imperatives instead, without dismissing the possibility that assent to said imperatives will involve presuppositions which generate propositions.[78]

Clark's account is therefore not a challenge to my own. Clark's account is actually a rather appealing one because, much like Walton, it enables one to avoid the supposition that one has a psychological attitude towards a fictional entity. It also, as previously mentioned, avoids any commitment to the ontological status of fictional entities (such as that proposed

[78] To clarify, as was done in chapter one, it is not strictly that presupposition is giving birth to propositions in the purest sense. Rather that the things that one presupposes can be expressed as propositions.

by van Inwagen) and centres one's focus squarely on user response. Unlike Walton however, Clark sees no need to invite the complexities of pretence into his theory which is comforting, if not essential, to an account which proceeds from the phenomenology of immersion into very real observations about the acting self and embodied subjectivity. The tricks of phenomenology and that which our environment affords may well be sensitive to what games say, or in Clark's case what they command, but it is not a matter of pretending; it is a matter of being. For now, suffice it to say that I am willing to accept that there are certain aspects of Clark's imperative account which trump a propositional account. I do not however believe that any advantages therein are sufficient enough that they would enable me to draw different, more salient, more impactful conclusions than what I already aim to do. Clark's account, even if more informative in certain respects, is just another road to Rome.

§ Video Games and Immersion IV—Fictional Feelings as Modal Emotions

An account which bears a lot of similarity to Clark's but is perhaps simpler and more rigorous is that advanced by Harold Skulsky. In his essay *On Being Moved by Fiction* (1980), Skulsky, in the same vein as Clark, argues against a pretence account of fictional feelings and instead advances a modal realist account wherein our emotional responses to fiction are grounded in the logic of possible worlds. Emotional pity for the suffering of a fictional character is

accompanied by "the belief [...] that, in a possible world such as is described in the text or simulated in the performance, there is suffering" (1980: 11).[79]

He amplifies this point thusly:

> I am saddened, or I shudder emphatically or smile, *at the thought of* such and such; and the thought is a belief that such and such is logically possible. The more detailed the knowledge of the given possibility provided to me by the fiction, the more intense my emotional response is likely to be. (Ibid)

Like Clark, Skulsky seems to maintain that merely entertaining certain counterfactual states of affairs is sufficient to elicit a genuine emotional response. However, unlike Clark, Skulsky does not assert that the delivery method employed by the fiction—which prompts such counterfactuals—is imperatival in nature but rather seems satisfied with a propositional account.[80] He also clarifies two points which hitherto scholars of fiction have left untouched. The first regards the presence of logical impossibilities expressed within a fiction and the second regards exactly what it means to entertain counterfactual states of affairs *vis-á-vis* things like fictional entities. Concerning the former, Skulsky makes the remit of his project quite clear, identifying the exact scope of his analysis—and at the same time delimiting a standard for the field—when he writes, quite expertly: "What is wanted here, I think, is an

[79] The omission indicated by an ellipsis is my own and originally reads, in parenthesis, "in the foregoing analysis". Here Skulsky is referring back to a challenge which he made to Walton's theory. Since it is not relevant in any specific sense to this thesis, I elected to omit this passage for the sake of coherency.

[80] It is important to note that Skulsky himself does not endorse such an account explicitly but he often mentions propositions when analysing the content of fiction and so I am convinced that the attached stipulation is justified.

account that has us reading stories for the relevant propositions they imply in a generically appropriate context of presuppositions, not speculating irrelevantly on anything and everything that would have been the case had the stories been true." (1980: 9)

Whereas the use of terms such as *relevant propositions* and *generically appropriate context* may be somewhat confusing, the strategy as a whole is still a sound piece of reductionism which encourages us to focus only on the set of propositions in a fiction which interest us (whether from a literary or philosophical standpoint) instead of refusing to reach accord on the matter on the grounds that not all things contained within a work of fiction are perfectly sensible.

Concerning the latter, Skulsky maintains that when one entertains a counterfactual state of affairs *vis-á-vis* things like fictional characters, what one imagines is not an individual (individuated by a referent, i.e., Sonic the Hedgehog) but rather an individual concept (individuated by some phenomenal type or token which generates *such and such* an experience). He writes:

> To imagine a Φ (I would urge) is to encounter a mental representation that is isomorphic to the sort of visual appearance that, together with appropriate background information, justifies the belief that there is a Φ before one. The determinant of just which Φ is the object of belief is not the representation but something non-conceptual—viz., the ostension made possible by the presence of Φ. (1980: 11)

In other words, for Skulsky, to entertain a counterfactual state of affairs in which *Sonic the Hedgehog is a freedom fighter* is to imagine such that one encounters the mental

representation Φ which is individuated by the fact that Φ, in this case, seems to generate 'Φ-like' experiences. If something generates Sonic-like experiences then it is an imagining of Sonic pertaining to a counterfactual state of affairs. Whether or not a Φ will generate such and such experiences reliably will most likely depend on some kind of family resemblance or epistemic conventions regarding fiction.[81]

Moving from this modal realist position, Skulsky argues that such a belief which we experience in response to fictions (in this manner) "is thus a true modal belief" and that "modal versions of emotions are familiar enough to require no scare-prefix"[82] (1980: 12). For Skulsky, when one plays a video game, one responds to events with unfeigned emotion, reacting in a manner which is spontaneous, not histrionic.[83] He also makes clear that in the case of a modal version of an emotion—wherein one encounters not an individual but rather an individual concept—its impact or authenticity are not to be called into question. He writes:

[81] Convention tells us that an image of a masked vigilante in a bat costume is likely to generate Batman-like experiences and not Sonic-like experiences. Therefore, there is a primitive, denotative structure of colour and shape in place at some level which guides recognition of these individual concepts (as rendered in print for example). However, convention also awards certain liberties to the author which the audience does not have. Under certain conditions, an author may designate something Batman-like as Sonic-like and if certain felicity conditions are met then this designation will obtain. What these felicity conditions are is worth exploring elsewhere; perhaps alongside the literature of fictional resistance.

[82] The scare-prefix to which Skulsky refers is that which Walton introduces when discussing "quasi-fear". Skulsky does not mean to suggest that Walton is adopting a modal realist account, rather he considers "quasi-fear" to be vague and mysterious and is indicating the strength of his own account *contra* Walton by virtue of its lack of reliance upon such scare-prefixes.

[83] Though he does not mention it, I maintain that immersion will increase the intensity of one's spontaneous reactions and that, exactly because the response was authentic in the first place, there is a certain threshold of intensity beyond which resisting export becomes difficult, especially if one is already carrying certain unformed prejudices. Though there are also cases where one can be susceptible to affective change without the presence of bias. More on this soon.

> Nor need the emotion be attenuated by the fact that the object of my pity is an individual concept and not an individual; the same thing is true of my fear of the mugger who may be hiding along the dark street I am about to enter. (Ibid)

Skulsky is using the example of the mugger to draw attention to the fact that there is sufficient overlap between real world examples of modal beliefs (and their emotional corollaries) and fiction-based examples. Whether via reality or fiction, I contemplate[84] a world W_1 in which X happens and I have a genuine emotional response to this thought. In both instances, the thought itself is not of a mugger as an actual *individual* because if this were so we would expect different patterns of behaviour—lest I fancied to challenge said mugger. Rather the thought is of an *individual concept* [mugger]; a mental representation within a modal context which causes me some consternation.

For Skulsky, this same model can be applied to fictional contexts. When I play the video game *Final Fantasy VII* (Squaresoft, 1997) and through an audio-visual narrative I am presented with the death of Aeris Gainsborough, I am encouraged to contemplate a world in which Aeris dies tragically and I respond authentically to this modal belief (that in W_1 Aeris has died tragically). Instead, I perhaps long secretly for W_2 in which Aeris survives.[85] Under this model, what is considered by Walton to be pretence becomes preference instead. During the course of playing *Final Fantasy VII*, if someone were to exclaim: "Look out!" when Aeris'

[84] Skulsky admits that it might only be true in theory that I contemplate in such a manner. In other words, that my contemplations can be accurately described within the framework of such a theory without their phenomenal character matching the exact purport of said theory. I may not sit thinking about world W_1 in which X happens but that does not mean that such typology is not a fitting description of what I do in fact think.

[85] As evidenced on an anecdotal level by the fact that many gamers, over the decades, have taken to the internet searching for possible ways to avoid or reverse Aeris' death. Some even went to the lengths of modifying the game so as to re-write her into the narrative, or to write fan-fiction of their own wherein Aeris survives.

life is threatened by Sephiroth, then what that expresses is not anything make-believe about W_1 but rather an actual preference for W_1. Skulsky writes:

> "Look out" expresses, not (pretended) coexistence with the events in the scenario, but a preference for a scenario in which the speaker (or his contrafactual counterpart) eludes danger. [...] and in part to respond by preferring (*ceteris paribus*) possible worlds consistent with its not having occurred. [...] The heart of the account is the notion of a belief which mediates the response. A belief that *in fiction f, p* is to be a belief about a set of possible worlds fixed by *f*, and about certain rôles or characters or individual concepts instantiated at those worlds. (1980: 12-13)[86]

In this scenario the contrafactual counterpart is Aeris but in a first-person game it could just as easily be oneself (as Skulsky himself admits). In the aforementioned example, when I experience sadness for Aeris' death in *FFVII* I am not pretending this sadness, rather I am (implicitly) expressing a preference for a possible world in which Aeris did not die. To Skulsky then, simply entertaining counter-factual states of affairs tinged with my own perspective (or more precisely at which my phenomenal attention is directed) is sufficient to elicit an emotional response. This might be a modal version of an emotion but this does not bear upon the emotion's authenticity, only on the authenticity of the ontological status of the world at which my phenomenal attention is directed.

[86] Skulsky himself admits that this account of emotional responses to fictitious persons and events will be only as clear or plausible as the particular form of modal realism on which it rests.

Incidentally, Skulsky's insights raise a larger issue as to what motivates the concern about the fact that we can have authentic emotional responses to states of affairs which do not exist. It seems trivial and mundane to assert that my own imaginings can affect my emotions. I can imagine a friend whom I do not in fact have and then imagine this friend dying and, upon the contrivances of my imagination, have an authentic emotional response to this imaginary friend's death. In Skulsky's parlance, this is to emotionally respond not to an individual (which does not exist) but to an individual concept (which exists as a mental representation linked with certain parts of a world.) If one adopts Skulsky's position, it becomes somewhat confusing as to why scholars have puzzled over emotional responses to fiction. After all, a cursory glimpse at the everyday operations of our imagination will show that one can react emotionally to things that do not exist.[87] Other people can also respond emotionally to my imaginings should I relate them—indeed, is this not a cornerstone of fiction? What good reason does one have to propose that relating my imaginings in the form of a novel or video game makes the issue more complicated? Humans respond to stories (which themselves are counterfactual states of affairs) and even if the exact reasons why are clouded, it is significant (and for this thesis, sufficient) to note simply that we respond.

One reason that it is significant is that it also makes the tendency of the conversational score to change relative to presupposition seem quite commonplace. Emotions are affective experiences which can influence our beliefs and behaviour, this much is uncontroversial to state. There also seems, on Skulsky's account, to be little reason to suppose that an emotion's modality alters this affective trait. If this is the case, then fictions ought also to have this power because entertaining a counterfactual state of affairs can solicit modal emotions which then

[87] The function of the Amygdala does not have to be logical. It is not unfeasible to think that certain persons may be so inclined such that merely considering the notion of a round-square might cause an emotional response.

influence our beliefs and behaviour. In the Wade example, if all the worlds over which he contemplates contain X (where this is implicit and pejorative) then it is unsurprising that this could have an impact. But there is more. Notice that Skulsky writes about the *relevant propositions a fiction implies in a generically appropriate context of presuppositions*. This dovetails with the insights of Langton and West nicely because what stands as a generically appropriate context will be guided by the rule of accommodation and how it tracks wider social norms. As for whether or not the propositions which a fiction helps to generate will be relevant, one needs to ask relative to what things are we measuring relevance? The latter of course becomes fixed by the exact type of presuppositions which Wade generates. If $\mathbf{W_1}$-$\mathbf{W_6}$ contains implicit speech which encourages Wade to presuppose **X** then, from Wade's perspective, it seems rational to assume not only that presupposing **X** will also be relevant to $\mathbf{W_7}$ but that presupposing **X** bears some general relevance to possible worlds. This latter assumption is of course pro tanto but it is also plausible and, in its actualisation, epitomises the kind of normalisation of the pejorative which can be expressed as change to conversational score (in a wider sense).

This account has many strengths, foremost among which is that we need not concern ourselves with whether or not video games are fictions of a certain kind, only with what the player believes. Since this thesis does not have a doxastic focus, outlining the exact formation of belief is surplus to the more rudimentary phenomenological picture of immersion and how it coincides with the effects of implicit speech. However, insofar as a video game can be said to influence one's belief, I am happy for this belief to be a true modal one but even if it were not, even if to engage with video games was to court delusion, we have still yet to find any reason to suggest that a discussion of fiction undermines or defeats a notion that implicit speech, presupposition and export can obtain in a manner that is deepened by the

phenomenology of immersion and the nuances of embodied subjectivity. At this point, I am fairly confident that my initial prediction that knowing *what fictions say* or *how they say it* will not alter our initial predictions but we have yet to review all options. Let us take nothing on faith.

§ Video Games and Immersion V—Fictional Feelings as Projection

Whereas the question of immersion and export is a question not of *why* one responds to fiction but rather a question of the *how* that response operates—and what preconditions serve to facilitate such—it should of course be noted that it can still be pertinent to address the question of *why*. One such scholar who is concerned with the finer details of our emotional responses to fiction is Jerrold Levinson, who takes a psychological approach to solving the aforementioned puzzle.

In a short paper entitled *The Place of Real Emotion in Response to Fictions* (1990), Levinson seeks to clarify the sense in which our emotions can be *real* by appealing to the insights of Psychology. Levinson maintains with Walton that we make-believe emotions towards non-existent fictional characters but allows that the emotions we feel are "tinged" with the real because through our interaction with the fiction in question one reactivates a real emotion. When suffering for Aeris at her death in *FFVII*, the make-believe grief we direct at her is potentiated by some real grief in our past which leaks into the present. In a sense, we retrieve a token of real grief from some similar circumstance and project it (quite implicitly) onto the fiction as part of the game of make-believe. Levinson writes:

> There is a kind of "leakage" between the two levels—that of imaginative connection with the characters and that of half-remembered, dimly focused recollections of stored life experiences—so that, although we don't, while in possession of our wits, end up actually pitying or grieving for Desdemona, whom we know does not exist, at a performance of *Othello*, the make-believe pity or grief we explicitly direct on her is very likely potentiated by a simultaneously awakened pity or grief from some past frame of mind. And in somewhat subterranean fashion, this latter tends to fuse with and permeates the former. [...] this grieving is subtly projected onto and unwillingly confused with your imaginary emotion vis à vis Desdemona. (1990: 79)

There are some dubious elements to Levinson's claims which I would like to point out. Firstly, his reliance on scare-quotes ("leakage") is curiously similar to those used by Walton and they carry the same fault, namely: why are they being used? Is it because the term which they enclose is left vague and undefined? To my mind it would seem so. Secondly, Levinson introduces a subtle condition that the above applies "while in possession of one's wits" which seems to imply a disjunction. Is there a case in which we are not in possession of our wits, during which are emotional responses are in fact authentic? Does immersion alleviate us of our wits in such a fashion? It seems like a strange disjunction to draw which only weakens his account.

Thirdly, it is not certain what Levinson means when he uses the terms "subterranean" and "permeate." Does he mean to suggest that there is something sinister to this process or simply that we are unaware of its happening? As for permeation, what exactly is permeated

and what does said permeation accomplish? I take it that a memory influences the content of our make-believe project (our imagination) in such a way that it comes to feel real to us. In which case are our painful recollections permeating our beliefs about fictional entities, thus causing emotional affect? These claims seem to be of an empirical bent, in which case Levinson needs to provide some metric by which these claims can be measured and quantified because at present they are merely conjecture.

Fourthly, Levinson claims that our real emotions (real grief) are projected onto and thereby confused with one's "imaginary emotion." I reject both **(a)** the notion that Levinson can pick and choose the conditions under which responses, of any calibre, to fictional entities are sound and **(b)** that there can be such a thing as an imaginary emotion. In the case of **(a)** it seems as though Levinson is advancing the make-believe account in order to sidestep the metaphysical issues regarding an emotional response to an entity which he feels does not exist (i.e., Desdemona) but in doing so he presumes a solution to the problem of fictional creatures which the likes of van Inwagen would decry. Furthermore, in the case of **(b),** if such metaphysical issues are sound, it is still incumbent upon Levinson (or his commentators) to demonstrate why it is that these same metaphysical issues do not arise viz. *imaginary emotional responses* to an entity which does not exist (i.e., Desdemona). Furthermore, in the case of **(b)** again, it seems phenomenologically unsound to assert that an emotion can be imagined. I can imagine having an emotion; I can imagine about emotions in general; I can even imagine in order to generate an emotion but there will not be a context in which my imagination is to be confused with the emotion itself. If it feels real, it is a real feeling. To what that feeling pertains is a separate matter.

However, in spite of all the previous, one cannot deny that there is wisdom in Levinson's account. He claims that some real grief R[g] potentiates our make-belief grief M[g].[88] This insight equips one with an understanding, similar to Gendler, of how one can learn from fiction. Fictions, for Levinson, may not be populated with the real but as he admits our own emotional responses are at least in part real and he at no point tries to argue that our engagement with fiction does not comprise a real experience which forms real memories. These memories of our fictional responses to fiction can then become the basis for future emotional responses. Consider the person who cries heavily during cliched death scenes wherein violins play but does not shed a tear when viewing footage of actual human suffering. This person's emotional responses have been psychologically conditioned to follow certain patterns.

Rather it seems as though for some, fictions can themselves be the vehicle for new experiences. It is not implausible that for many, Aeris' death in *FFVII* was their introduction to loss and that this fictional instance became the template for future loss as opposed to the other way around. Fictions have been known to challenge us emotionally, presenting us with difficult and distressing emotional dilemmas the purpose of which is to communicate something new to the audience. Levinson presumes that everyone who consumes fiction already has a complete emotional gamut with which to project onto fictional contexts and in doing so denies us the possibility of learning through fiction. Why suppose that a young gamer has accumulated the emotional diversity of a team of middle-aged developers, each from a different background and each carrying their own insights to convey? If all consumers of Art were such emotional prodigies, then artistic failure would never happen; in addition to which,

[88] where the context of R[g] can be similar, though not necessarily identical, to the context of M[g]

one would never see the common example of one's needing time to mature before truly understanding the depth of a certain fiction. And yet, the emotionally inexperienced (perhaps young children or particularly sheltered individuals) still have emotional responses to fictional scenarios for which they have no template of reference and so said emotions cannot rightly be the function of recollection as this implies sufficient life experience from which to draw, which seems implausible.

Admittedly it is possible that I am straw-manning Levinson's position here. Levinson never directly maintains that one cannot learn from fiction, or that fiction cannot become an emotional template from which to draw at a later time. He merely claims that real grief potentiates make-believe grief. It does however seem as though Levinson is arguing that fiction cannot establish real grief because if this were the case then it would be difficult to understand why, in interacting with fiction, he claims our grief to be make-believe in nature. It is clear that on some level, for Levinson, emotional responses to fiction are ersatz counterparts to their real world alternatives which are more visceral. Note however that intensity does not imply a difference in kind, merely a difference in degree and it is uncertain why any individual instance of grief needs a different instance of grief to potentiate it.

Another objection might be that even if, for instance, one has never been to a real funeral, one still draws from their life experience when witnessing a video game funeral for the first time. At the very least, some life experience, available to me through and latent in acts of recollection, will colour my perception of events, altering the way in which I feel. If we take this to be Levinson's point then I can accept it without qualm because it is so commonplace. It still does not establish that the grief which I feel for Desdemona is make-believe and that I am not in possession of my wits if I do so. A core portion of Levinson's

psychological rest upon ontological commitments to the unreality of fictional characters that he has not fully spelled out and yet it is precisely this which he needs to do in order to motivate the claim that Desdemona's being unreal somehow render my grief in a new light.

The final thing to take away from this account is that, contrary to the likes of Langton and West who seek to understand the influence that media can have through implicit speech and how it alters Lewis' broad notion of conversational score, Levinson's account casts any influence in a more psychological light. Under his account, it becomes a matter of how one is conditioned to behave, how one's personality is shaped and changed through our experiences, as opposed to a speech-act theory. Langton and West are not unsympathetic to the possibilities that conditioning may be involved, even going so far as to acknowledge some of its merits were it to obtain. They write:

> some readers might find that our approach places pornography towards an excessively rationalistic end of Scoccia's speech spectrum. Some might think we have not done justice to the more deeply irrational ways in which pornography changes people. We have, after all, said nothing about the important question of whether and how pornography changes desires, whether it produces violent desires, and what the relation between desire-change and belief-change might be. This question about desires is one to which the reductivist account—the account suggested by Scoccia, and by MacKinnon in a different mood—gives a very direct answer. Pornography changes desires through a process of conditioning. The question is well worth pursuing, but let it suffice for now to say this. If pornography does belong to a more deeply irrational end of the speech spectrum—if something closer to the reductivist vision is true—then MacKinnon's conclusion will receive even more support than we have given it. If we are wrong, then far from being political argument, as Dworkin suggested, pornography can

> barely be understood in ways that view it as continuous with conversational language games. Perhaps pornography has more in common with the Pavlovian bells than we expected. (1999: 317)

Under this account, pornography may not even be best considered as speech at all. The same may well be true of video games. It may well turn out that video games do not say anything at all and that it is through a more irrational process of psychological conditioning that any pernicious influence occurs. This is not all that problematic. To my mind, the rationalistic approach of looking at video games as speech is more charitable to both developers and players. The former because it does not present them as people who are either accidentally (through some blunder) or intentionally (with dubious intent) designing technology to condition consumers. The latter because it does not present them as people so easily conditioned, so malleable to influence purely by sound and visuals. However, even should it turn out that conditioning is a better direction than speech, it would not affect my conclusions. As we have seen in chapter 3, and as we will soon revisit in the next chapter, it is an authentic sense of embodied presence and facts pertaining to embodied subjectivity that do the work. Langton and West's account of implicit speech and presupposition is clarified and *explained* by the concrete particulars surrounding immersive video game play; a more basic notion of conditioning could also be clarified and explained with recourse to Dolezal's insights, for instance.

Suffice it to say that Levinson himself does not give enough reason to motivate a departure from video games as apparatuses which convey speech to video games as conditioning apparatuses. At least not where this thesis is concerned.

§ Video Games and Immersion VI—Quantifying over Fictional Contexts

The aforementioned attempts to provide succinct and fecund analysis of our emotional responses to fiction have all been motivated by the same strategic font. Namely that if **[a]** one assumes that fictional entities do not exist and **[b]** one wishes to talk intelligibly about emotional responses to said non-entities then one must somehow account for these emotional responses in a manner which preserves our common intuitions. Returning for a moment to Skulsky, there is a particular move of his—which has yet to receive attention in this thesis—which unlocks a different avenue of thought. The avenue in question is born out where Skulsky writes: "A belief that *in fiction f, p* is to be a belief about a set of possible worlds fixed by *f*, and about certain rôles or characters or individual concepts instantiated at those worlds." (1980: 12-13)

This exemplifies a move away from the above-mentioned strategy and a return to an older strategy, one made seminal by van Inwagen, which attempts to render our emotional responses to fictional entities reasonable by virtue of the fact that they simply exist. Whereas van Inwagen's method was to grant fictional entities sufficient status as objects of theoretical/literary criticism (which exist in an ordinary sense), Skulsky is appealing to possible worlds in an effort to render certain beliefs literal. Claiming that the belief *in fiction f, p* is about the set of possible worlds $W_1...W_n$ fixed by *f* and that there exist individual concepts instantiated at those worlds is to quantify over fictional contexts—hence why Skulsky stakes his position as one of modal realism and admits that it stands or falls on the strength of the

modal realist account which underpins it. In his own words: “my account … will, of course, be only as clear or plausible as the particular form of modal realism on which it rests.” (1980: 13)

Skulsky does not develop the realist metaphysics of his account and so we are not entirely certain how effective is his attempt to quantify over fictional contexts. Since Skulsky does not expand upon this avenue further, let us turn to the insights of Olav Asheim, the latter of whom is directly concerned with the prospect of quantifying over fictional contexts with particular reference to video games. In his essay *Reality, Pretence and The Ludic Parenthesis* (2012), Asheim begins by taking umbrage with the strategy adopted by his contemporaries, claiming that, in the discussion of virtual objects, to assume that *non-virtual* objects exist is to assume a realist solution to the problem of existence from the outset, which is to commit *petitio principii*. Similarly, Asheim asserts, to assume that ludic elements such as *Sonic the Hedgehog* can be reduced to pretence or imagination is question begging because it is the ontological status of said entities that we are trying to determine. Instead, Asheim wants to determine, from the ground up, whether there is a logical operator to cover statements about literature, fiction, play, video games (and so forth). To ensure that he is not begging the question he introduces an N_I-operator,[89] which he treats as generic and applies it to the aforementioned cases on the grounds of family resemblance.

> I will now introduce a generic indexed sentence operator, “N_I”, to stand for a family of operators in several related fields—of special interest to us are the field or fields of computer games, the fields of traditional games of all kinds, and the field of literary fiction; also the fields of theatre

[89] Where N is 'fictionally' and $_I$ is a particular instance of fiction, such that claims of the sort: "Sonic can run at the speed of sound" are literally false but can be treated as elliptical for: "Fictionally, in SEGA's Sonic franchise, Sonic can run at the speed of sound."

> and of fiction film. In addition, there is the field of fantasies and daydreams, and "N_I" could even be interpreted as a dream operator. (2012: 237)

In conceiving this N-operator and plugging it into sentences about fiction he notes that there are semantic and syntactic similarities between this generic, supposed N-operator and other operators such as a B(Belief)-operator which for him is strong enough to warrant that the use of operators can yield formal results. In particular, when one treats *N* as a placeholder for 'imagines', 'pretends' or 'fictionally', it allows one to see which theoretical tools can be applied soundly to video games, such as possible worlds and other features of modal logic. He writes:

> We should first note the similarity in syntactic and semantic behaviour between the generic N-operator and an operator of belief, "B". [...] In the way "N" is an indexed operator, "B" is also indexed. Interpreting "N" as an operator of daydreaming, the subscript "I" will refer to the subject having the daydream. "B" needs a similar subscript referring to the subject holding a belief (2012: 240)

And later, he writes:

> A logic of belief is a modal-type logic, closely related to the logic of knowledge, which is a genuine modal logic and there is a possible worlds semantics for it. The similarity between the B-operator and the N-operator is an indication that a possible worlds semantics can be adequate for N-type operators as well, hence also for a ludic operator dedicated to videogames. (Ibid)

In particular, Asheim pays close attention to the notion of logical necessity and subsequently it becomes clear that there are modal affinities between B-operators and N-operators. B-operators surrender the axiom that *what is necessary is always the case* because for something to be knowledge it must be the case but not so with a belief. This enables us to talk about W_1 as being incompatible with what is believed by subject S in W_0 (i.e., fiction). Also, W_0 need not be compatible with what S believes in W_0 (i.e., falsity). Asheim considers the following formulation: $B_1(p)$ ("in reality, it is believed that such and such"). $B_1(p)$ is necessarily true if and only if (p) is true at every world W_n that is compatible with what S expressed at W_0. The N-operator, Asheim argues, can be formulated similarly as $N_1(p)$ and can operate the same way. For instance: *Fictionally, in the games made by SEGA, Sonic can run at the speed of sound* is necessarily true if and only if (p) is true at every world W_n that is compatible with what S expressed at W_0. Since the N-operator works alongside B-operators, there is reason to suggest that the set of family resemblance entities designated by Asheim as F (fiction, fantasy, make-believe and so forth) are adequately quantified over by N. This method is seductive to the realist because it gives one a semantic method for determining which fictional truths imply which others.

At this point it is important to note from whence Asheim is deriving his particular strategy. As he himself admits, his project is motivated in the same vein as that of Phenomenologist of Aesthetics, Roman Ingarden. In particular, Asheim pays attention to the concept of "purely intentional objects" and "ways of being" which Ingarden explores in his opus *The Controversy Over The Existence of The World* (*Der Streit um die Existenz der Welt*).[90]

[90] Asheim cites in particular the pages 69-129 from the 1964 edition.

According to Ingarden, a purely intentional object is a mind-dependent object, but it is not a mental object, it transcends the intentional act in which it originates. Ingarden writes: “The purely intentional beings are ‘transcendent’ relative to the corresponding acts of consciousness and generally to all acts of consciousness in the sense that no real element (or moment) of the act is an element of the purely intentional being.” (1960: 123)[91]

By way of example, *Sonic the Hedgehog* would be a purely intentional object the existence of which is mind-dependent (without minds, Ingarden argues, there would cease to be any such entity as Sonic) but transcends said mind(s). To borrow from Ingarden's own parlance, a character in a novel does not have its immediate fundament of being in the creative imagination of the author (what Ingarden would call an act of consciousness) but rather in the meaning of the sentences that keep the literary fiction alive. “Not every purely intentional object has its immediate fundament of being in an act of consciousness. . . . [The meaning of a sentence that belongs to a literary work of fiction] define of itself the objects depicted by it (people, things, animals, events etc.) which are also purely intentional” (1964: 86). In the case of video games, Ingarden's claim is that *Sonic the Hedgehog* is a purely intentional object whose fundament of being is not in SEGA's development team but in relevant constituent parts of the video game in which he is presented. As an aside: it is interesting to note here that if a Virtual Realist like Chalmers wishes to align themselves with Ingarden's claims then it becomes of crucial import to stipulate the fundamental components of a Virtual Environment, be they data structures, graphical indexes or otherwise. Ingarden's account *vis-à-vis* video games is only as strong as the Virtual Realism which supports it. Perhaps something to explore in another paper.

[91] Translation provided by Olav Asheim.

Ingarden argues that cultural objects like works of Art are also purely intentional objects. As a matter of fact, it seems as though Ingarden is committed to the notion that all artefacts are purely intentional objects. Asheim reviews Ingarden's example of a Church as a purely intentional object, writing thus:

> Ingarden argues that a church is a different object from the building as such, that would remain the same if it were transformed into something else, say a museum, and the church thereby ceased to exist. If the building is demolished, the church can be rebuilt, so a church can also survive the original building. And the building as an artefact is again a different object from the "heap of stones" as a real object {realer Gegenstand} (2012: 236)[92]

Asheim is supportive of this notion of purely intentional objects, claiming that they supervene on real objects in Davidson's sense of supervenience (Davidson, 1970, 1993)[93] but Asheim also gives reason to suggest that the kind of entities encountered within video games might not always be purely intentional objects. In fact, as we will shortly discover, whereas Asheim thinks that there are purely intentional objects in the fiction of a video game, part of his reason for introducing the N_I-quantifier is his suspicion that there are elements of video games (fictional, make-believe, ludic or otherwise) which seem sufficiently different to purely intentional objects. He writes:

[92] Asheim cites the above as follows: (Ingarden, 1962, pp. 257-268).
[93] "At least it can be argued that purely intentional objects supervene on real objects in the sense semantics supervenes on syntax or evaluative properties supervene on descriptive properties, that is in a way that seems to preclude reduction." (Asheim, 2012, p. 237)

> Are the inhabitants of videogames ontologically different from make-believe objects? Do they have a stronger claim to reality than fictional entities have? There is some evidence that they do: for example the currency in Norrath, the virtual world of *EverQuest*, has long ago become real money in having acquired a real exchange rate relative to extraludic currencies like the Dollar (Castronova 2001), and a piece of visual art on exposition in a virtual gallery in *Second Life* is a piece of visual art. (2012: 234)[94]

Here we are reminded of insights from the previous chapter, namely those akin to that of Aarseth, Tavinor and Sageng who sought to clarify the status of virtual entities. Asheim is prompting us to consider a realist account but unlike the others his aim is to render statements about video games sensible so as to render our emotional responses similarly. The likes of Sageng would postulate that said responses to fiction (say action and belief reports) are elliptical. 'Sonic the Hedgehog can run at the speed of sound' thus becomes: 'In the video game *Sonic the Hedgehog*, players are able to perform a C-running which in the fiction is proscribed as Sonic running at the speed of sound.' For Asheim however, his strategy is to let *Sonic the Hedgehog* refer fictionally to an object which is a value of a variable that is bound thusly by an existential quantifier in the scope of the N-operator: *In the fiction contrived by SEGA there is a Hedgehog called Sonic who can run at the speed of sound.* As for any identity claims about Sonic, Asheim thinks that these should not concern us. All the realist or anti-realist need know is that the domain of a world W_1 tested for compatibility with W_n (other Sonic stuff) contains a Hedgehog called Sonic, with such-and-such qualities, without needing to know who such-and-such a Hedgehog is. Concerning the matter of identity metaphysics,

[94] *EverQuest* (1999) was developed by Verant Interactive and 989 Studios. *Second Life* (2003) was developed by Linden Lab.

the Realist must accept that N-quantifying in this way permits of objects which are individuated by fictional properties alone. In Asheim's case, in the vein of Ingarden, it is purely intentional properties upon which the task of individuation rests. Characters such as Sonic and Mario, he argues, share natural properties but do not share intentional ones.

Whether or not Asheim's tactics are entirely successful will, much like Skulsky, depend upon the strength of the realist account which underpins them. However, Asheim's notion of quantifying into N-contexts becomes interesting once we consider examples wherein human beings at W_0 are said to portray, in W_0, fictional characters at W_1. For instance, consider statements such as: Angelina Jolie portrayed Lara Croft. This involves more than just quantifying into N-contexts but rather involves exporting from N-contexts into reality. Asheim and his commentators might object that this begs the question because it presumes a realist solution to the question and furthermore straw-mans the argument by introducing an implicit disjunction between N-contexts and reality. Instead, Asheim would maintain the parlance of W_0 and W_1. This objection, though sound, will not affect my claims about immersion and so it does not concern me overmuch. However, for the sake of rigour, let us take 'all worlds W_n in which S expresses truthfully of Angelina Jolie that she portrayed Lara Croft at W_1' as representative of the set R. Then, for the sake of coherency, let us append henceforth to the set R the nominal title of *Reality*.

It is also very interesting to note that, under this view, when engaging with a fiction (or in our case being immersed in a video game), that which one exports is a belief about a purely intentional object at W_1 which comes to be projected onto another purely intentional object at W_0. For instance, when playing *Super Mario Bros*, if while immersed I become sufficiently unreflective and do not examine the propositions which the game encourages me to suppose

(i.e., *that Princess Peach is a damsel in need of rescue*) then I might form the belief *that women need rescuing* about the purely intentional object *Princess Peach* and in exporting this belief from the fiction project it onto a broader purely intentional object of *woman* that I possess, thus altering my behaviour towards future women whom subsequently I believe to fit this archetype. In this sense, *woman* is a purely intentional object in the sense that the properties of this woman, even if directed at an actual human being, are generated by an act of consciousness and need not (and likely do not) match the set of properties possessed by any actual woman.

This picture has a lot of overlap with the literature on implicit bias and I am sympathetic to the idea that one is more likely to form such a belief at W_1 and export said belief to W_0 if one already harbours prejudice of a certain kind. Conversely, it is unlikely that a critically-thinking feminist will form such a belief and then export it. Immersion, as I have already clarified, is not a vehicle for brainwashing, merely a phenomenological platform from which to provide a novel perspective in the debate about whether or not video games can influence their players. Once again, it is not exhaustive, merely original.

Returning to Asheim for a moment, in particular to the insight that only purely intentional objects are those which are exported, he notes that certain entities which originate in a game world, such as a fictional currency or newspaper, seem to end up becoming part of reality. In fact, his claim is stronger than this, he singles these kinds of entities out and asserts that they were already real from the beginning as real, purely intentional objects. He writes:

> ludic and fictional objects that "go real" must have been "real purely intentional objects" from the beginning, in the sense of having all the time been objects we could refer to and quantify over. If not, how could we say it was the same object that now counts as real which earlier counted as fictional? [...] The fictional and ludic objects that become real are all objects of the kind Ingarden regards as purely intentional, for instance stories, languages, newspapers, money, institutions and organizations, and other kinds of artefact. Only man-made objects that have their origins in fiction and games can achieve the status of real-world objects of the same man-made kinds. (2012: 249-254)

The properties which constitute something as a work of visual art do not depend on anything called reality *per se*. As such, we ought not to be so surprised that visual art displayed in a virtual environment (which itself uses visuals) is to be considered art in an ordinary sense and ultimately bespeak no ontic differences. As for the notion of implicit speech, Asheim's account much like Skulsky's, whilst a rich mosaic from which to understand the kind of relations we bear to video games whilst immersed in them, does not alter the affects that implicit speech can be said to have and how this occurs, it only reshapes our understanding of that to which said speech pertains in a more metaphysical sense.

§ Video Games and Immersion VII—Fictional Feelings as Feelings

When immersed in a video game we feel as though we are part of the universe with which it presents us and we have heightened emotional responses during play. We get angry at the behaviour of the villain and upset at the travails of our characters in much the same way that

we do when engaging with novels or plays. The chief aim of this chapter thus far has been to examine the literature to ensure that no account of fictional worlds or our emotional responses to fiction interfere with what video games, assuming they are fictions, say and what effects this speech may have. What have we learned?

van Inwagen spearheaded a whole new direction in the literature when claiming that creatures of fiction, i.e., fictional characters described in novels and so forth, do in fact exist and can be sound points of reference. Following his theory people became more interested in the notion of fiction in general and the question of fictional feelings and their validity was revived in the analytic tradition, becoming its own coherent school of thought. We have dealt with numerous approaches in this chapter, some dealing with pretence, others with imperatives, modal realism or psychological projection. The current tradition is as split now as it was in van Inwagen's day, between realists and anti-realists. So far, none of these accounts, though erudite, have altered the shape of our project much in the same manner as no account of virtuality did so in the last chapter. This is because the phenomenological insights of the previous chapter on tele-presence do not depend upon any brand of realism or anti-realism about fictional worlds/feelings.

From a phenomenological perspective, the question of *whether or not the feelings which we seem to have in response to fiction are veridical* is perfectly normal. If while playing *Final Fantasy VII* we feel like we are sad when Aeris dies, then we are sad. Simply to feel a certain way is evidence that consciousness has moulded itself into said shape—in our case one of sadness. The metaphysical issues surrounding this sadness are of no concern for the Phenomenologist who seeks to capture the phenomenal character of our subjective lived-experience and draw conclusions which are fundamental to consciousness itself. As such, from

a phenomenological perspective, to claim that experiencing immersive tele-presence shifts one's acting self to the world of the game, altering my motor-intentionality (and so forth), does not depend upon any brand of realism or anti-realism. Such things might augment and expand the context of the Phenomenologist's claim but they do not *ipso facto* stand as necessary conditions to be fulfilled by the Phenomenologist. However, even though we predicted that no account of fictional worlds/feelings would alter how we approached video games, there are some valuable insights to be drawn from a contextualist account not only because it will be a suitable departure from a necessary, but cumbersome, ordeal but also because context admits of the body and its relation to the world in a way which promises a phenomenologically-satisfying account.

Consider the views expressed by Peter Ludlow. In his essay *From Buffy to Sherlock to Klingon to Norrathian Platinum Pieces: Pretence, Contextualism and the Myth of Fiction* (2006), he argues to do away with any notion of a pretence operator and instead proposes a contextualist view in which there are no fictions or fictional entities but rather only predicates of sentences the truth value of which is contingent upon certain contexts. He writes:

> There is no such thing as fiction, and there are no such things as fictional objects. There are, however, certain predicates that are only satisfied in limited contexts of use, and this gives the illusion of different kinds of entities (fictional objects), and different modes of existence (fictional existence).
>
> More specifically, the idea is this: In the case where we have props or actors involved, certain predicates ("is a vampire", "is at stake", "are fangs", "is a slayer") may be true of those props and actors in limited contexts of usage. For example, consider Buffy The Vampire Slayer

> star Sara Michelle Geller. The predicate “is a vampire slayer” may be true of Sara in certain limited contexts (e.g., when she acts or when we watch the show and are caught up in it). In a case where there is no actor involved (as when we read a book that has not been adapted for theatre or screen) we can say that certain general claims (e.g., “there is a slayer having certain properties”) are true in a limited context (as when we read the book) (2006: 165)

With regard to video games, in particular with regard to the aforementioned items in video games which "go real" (like currency for instance), Ludlow is of the opinion that said things were already real from the beginning. However, unlike Asheim—who follows after the vein of Ingarden to argue that their ontic status (as real) owes to them having always been real *purely intention objects*—Ludlow considers that a sentence such as 'Norrathian Platinum Pieces have value' was always true in the context of the game but that said predicate, in its export to reality, simply becomes true in a wider context. It has been exported between contexts rather than being exported from fiction to reality. As he writes: “Norrathian Platinum Pieces always had value in the game and now they have real world value.” (2006: 171) In the limited context of playing *EverQuest*, the predicate 'has monetary value' was always true of 'Norrathian Platinum Pieces'. However, the instant that player-demand evolved beyond a certain point, there emerged a sufficiently-sized market for the exchange of this *EverQuest* currency via an extra-ludic currency such as the U.S. Dollar. This meant that the predicate 'has monetary value' became true of 'Norrathian Platinum Pieces' in contexts which expanded beyond the limited context of playing *EverQuest*. Anyone with financial interest could now broker 'Norrathian Platinum Pieces' for profit whether or not they had ever expressed an interest in (or even played) the game of origin.

Under this account, we can be very reductionist and simply talk about propositions and the contexts in which assigning their truth-value is sensible. Apply this to video games and what we have is not only a means of not only ignoring virtual worlds, as we did in the last chapter, but also of ignoring fictional worlds. Instead, as we have suggested time and again, we simply need to focus on implicit speech and presupposition and the context in which it arises, i.e., playing certain games—which is sensible to talk about irrespective of whether video games are fictional worlds or virtual ones. Under an account like Ludlow's—one which could only be discovered and adequately contextualised relative to an assessment of the literature on fictional feelings/worlds—one escapes having to consider any individual video game as anything beyond that which one is playing. More precisely, when considering the intentions of this thesis, one does not have to consider immersion *vis-à-vis* fictional or virtual worlds but only relative to the context in which one finds oneself when playing a game. Ludlow hints at how such contexts render statements sensible but as for the context itself, it has already been implied by Dolezal's findings in chapter three. Whatever it is to consider something contextual in Ludlow's sense will ultimately be carved out upon the phenomenological lathe of embodied subjectivity. The body is always postured towards its tasks, the set of which are limited by my present environs and the action-possibilities that they afford. A context is not given to me in the perception, situation and expression of the lived body as a purposive thing but rather is another way of describing my relation (and the relation of others) to the world. To say that certain predicates can be true of certain people in certain contexts always presupposes a where and a when—the latter of which must always be 'where and when' relative to my body. For something to be contextual is for it to *be in the world* relative to *beings in the world*.

CHAPTER 6 — Video Games, the Avatar and Affordances

We now know for certain that a sense of presence that pertains to a video game is not contingent upon virtual worlds *even if* said video game is itself, or contains, a virtual world. If we want to be even more precise, we have learned that even if video games themselves are contingent upon a virtual world, the ontology of which is robustly defined, it is still possible to feel a sense of presence where said video game is concerned *and furthermore* said sense of presence will not depend upon the virtual world. Instead, its prerequisites are for the concern of the phenomenologist.

This was our intuition at the end of chapter 3 where we dealt with tele-presence. Examining tele-presence turned out to be the most useful means of ingress into presence *vis-à-vis* video games for two reasons. Firstly, because it happens to be the direction that the literature has taken. Much discussion of VR, and subsequently video game VR, has evolved out of consideration of the phenomenological particulars of tele-presence technology. Secondly, because it introduced us to the notion of prosthesis, in particular the assimilation (induced transparency) of robotic limbs into the corporeal schema. These insights are perhaps an inevitable result of perusing literature which deals with the phenomenal impacts of interacting with digital technology but it is important to note that we owe said insights to our review of tele-presence in particular. Even though presence proper is a more accurate appendage to video game play, we knew as far back as chapter 2 that simply reviewing presence would not tell us anything stark about video games in particular. Thus, we selected a sub-species known as tele-presence precisely because it would provide the most cogent framework for the subject matter at hand. Namely, one which enables us scrutinise the

concrete technological apparatus of video games and how this, in both a design and play perspective, dovetails with immersive Phenomenology.

However, even though an analysis of tele-presence yielded many secrets (and even though we were confident that no commitment to virtual worlds was necessary in order to draw a link between immersion/presence and the effects of implicit speech/presupposition), we could not simply presume from the outset that virtuality was not a central component without first trying to define said virtuality, and later fictionality. Naturally, scholarly opinion diverges on the subject and we selected a few cornerstone examples to see whether our intuition was false—i.e., that there was in fact some crucial, unforeseen aspect to virtuality which rendered it essential to understanding both immersion/presence and its relation to implicit speech/presupposition. As is often the case with philosophical research, we figured that our hypothesis was sound but had to take scrupulous efforts to be sure. Thus, here we are. At the point we have wanted to be for some time. The steps remaining are as follows.

We must detail how presence in a video game is established in a manner which bears family resemblance to the tele-presence of the telesurgeon. To do this we will follow the path outlined by Dolezal, plugging-in the notions of body transparency, corporeal schema, and acting self to show that the same patterns of embodied subjectivity are operative. We will pay close attention to video game avatars, which I will argue become a seat for the acting self through immersion/presence, playing the same role as the proverbial blind man's stick whilst in said state.

Next, we will introduce Chalmers' account of *cognitive orientation* and marry it with Gibson's view of *affordances*. In doing so, we will establish a theoretical scaffold from which to conflate the two lines of our thesis: immersion/presence on the one hand and implicit

speech/presupposition on the other. We will show how immersion/presence, understood through the lens of the two aforementioned notions, gains explanatory power in the debate concerning implicit speech and its potentially pernicious effects. We will do so with renewed reference to Langton and West and their adaptation of Lewis' notion of conversational score.

However, before the above steps can be accomplished, there is first an initial step. Namely we must differentiate between the class of video games that we are including and those that we are excluding. There are so many different styles of video game that it would be presumptuous and foolish to generalise across them all without first outlining said styles.

§ You Are Now Entering Game Mode

Not all video games play the same. There are distinct ways in which games enable interaction, something which we will refer to as virtual modes. There are four distinct modes that all video games fall under which I will refer to as *textual*, *cursorial, avatarial* and *first-personal*. It is from the latter two that I will draw the most valuable insights where this thesis is concerned but it is important to delineate the parameters of the other two modes so as to justify their separation from the discussion. Depending on the virtual modality in question, one's sense of presence will be affected because said modes refer to phenomenally distinct worlds built to enable, and therefore latent with, different sets of action-possibilities. In Slater's terms, each mode facilitates a different degree of sensorimotor interaction and therefore involves a different degree of immersion a technological level and therefore, as a subjective corollary to the former, it makes sense that presence would track this scale of degree. After defining the

virtual modes that video games take, I will focus primarily on avatarial and first-personal modes, looking at and resolving some key differences between them. I will do so with reference to the work of Rune Klevjer not only because of its brilliance but because of its particular focus on notions such as tele-presence and prosthesis. Once this has been accomplished, I will show how the kind of interactions extant in avatarial and first-personal games, themselves predicated upon the design of said games, can open up new action-possibilities and presuppositions.

Firstly, let us unpack the phrase "virtual modality." *Prima facie* this phrase may appear somewhat cumbersome and a bit misleading because it suggests modal logic. I would like to clarify at the outset that I am using notions of modes or modality in the ordinary linguistic sense.[95] Therefore, when applied to video games, a virtual modality regards a particular mode of experience relating to said virtual environment. The scope and limits of a virtual modality *vis-à-vis* Video Games, I will argue henceforth, are revealed when one applies our understanding of narrative, agency, action and environment to said modes. In a sense, all one need do is compare such things alongside the categories of *textual, cursorial, avatarial* and *first-personal* modes and in doing so one will have identified the character of the virtual modality in question.

§ Phenomenology of Video Games I—the Textual

[95] Modality (noun): the particular mode in which something exists or is experienced.

Examples of video games which adopt a textual mode would be *Zork* (Infocom, 1977) and *Enchanter* (Infocom, 1983). These games are textual in the sense that one's means of interaction (i.e., the shape that technological mediation with the game world takes) involves, primarily, paragraphs of text. In *Zork*, a narrative is presented to the player as text-based information on screen which often presents the player with diverging options by means of a question. The player types out a valid answer to the question and hits enter, thus prompting more text in response which continues the narrative adventure. Some features which distinguish text-based games are as follows.

- The player is not invited by the game to assume anything of the text itself. No agency is attributed to it and whereas it is used to generate narrative, perhaps one rich with normative considerations, the text is not in itself something which invites said concerns.
- The text is divorced from perspectival considerations. The text itself is not supposed to have its own perspective in the game world, nor is the player invited to suppose that the text itself exists as part of a perspective generated by the game world.
- The text does not move. Its position on screen functions in the same manner as that of the text in a novel. It is a means of conveying the story and nothing which happens to the text, no manner of its presentation, is supposed to be a diegetic feature of the game.

Text-based games are very old and very limited. They are the closest that video games ever come to being fictions in the strictest, most traditional of senses. It is not uncommon, nor is it irrational, to define such games as interactive fiction. There is very little that can be drawn from video games as rudimentary as this. Suffice it to say that whereas text in a game can of course (and indeed is often) be a carrier for implicit speech and perhaps even aid in one's

immersion, the *textual mode* is not of concern to this thesis and it will not be referenced henceforth.

§ Phenomenology of Video Games II—the Cursorial

Examples of video games which adopt a cursorial mode would be *Pong* (Atari, 1972) and *Tetris* (Nintendo, 1985). These games are cursorial in the sense that one's means of interaction (i.e., the shape that technological mediation with the game world takes) involves, primarily, a cursor. In *Pong*, the player controls a single cursor in the form of a paddle which they can move up and down. In *Tetris*, the player controls multiple cursors in the form of the randomised blocks which fall from the top of the screen. Returning to our previous schema concerning *narrative, perspectival* and *action-oriented* elements of play, this time focusing on the cursor, we can assert the following:

- The player is not invited by the game to assume anything of the cursor. No agency is attributed to it and it is not supposed to invite narrative or normative considerations. The cursor is merely a virtual tool operated by the player.
- The cursor is divorced from perspectival considerations. The cursor is not supposed to have its own perspective in the game world, nor is the player invited to suppose that the cursor itself exists as part of a perspective generated by the game world.

- Movements of a cursor must be very basic. If a cursor's movements become too complex, transcending beyond the coronal and sagittal planes, then they risk resemblance to wilful actions by virtue of the fact that humans, as wilful actors, operate beyond said planes. [96]
- The environment which surrounds a cursor must be basic otherwise one invites the presumption that the cursor inhabits said environment and therefore has a perspective within it. This would also imply agency and qualify said cursor as an avatar. As an example, I cite the video game *Anachronox* (Ion Storm, 2001) in which the player can swap between control of an avatar and a cursor-shaped object. This cursor shaped object looks like and interacts like a standard computer cursor a first. However, it soon becomes apparent that said cursor does in fact exist within the game world and is a small robot piloting a cursor-shaped vessel. This is perhaps a deliberate attempt from the developers to blur the boundary between cursor and avatar—hitherto two distinct modes within video games—by including said cursor within the narrative. At this point one might one to stipulate that another condition of a cursor is that it does not feature in a narrative in any capacity but I am not sure this claim is strong enough. There are many games in which a player's avatar interacts with a computer and moves a cursor around. One can even imagine a scenario wherein an eccentric character gives a pet name to their paddle within a *Pong* clone. However, in these scenarios, whereas the cursor in question features as part of the narrative, its status as a cursor has not been violated because the form of mediation to the attached environment is still cursorial.

To use *Pong* as an example: the player is not supposed to assume anything of the paddle other than that it is a paddle. The paddle does not have agency and it does not prompt us to think anything particular of it. It is a virtual tool and nothing more. The paddle is also not supposed to have a perspective or be the object of a perspective within the game world. We are not

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invited to imagine what it would be like to be the paddle, nor do we imagine that what we see when playing pong is a function of the paddle's sensory capabilities. We are not even encouraged to make the minimal commitment of assuming that the contents of the screen (when playing *Pong*) are the product of a detached first-personal perspective for which the paddle is an object. The paddle exists only as a tool: as though it were any ordinary paddle of which we could take hold and did not belong to any virtual environment at all. Though admittedly one could make-believe such and it would undoubtedly change the phenomenal character of one's experiences of *Pong*. I might for instance pretend that I am an omniscient God who is 'seeing' the paddle and through seeing it, moving it at my will. From there I might then assume that the paddle has agency which is violated through my act of moving it in accordance with my will and not its own. If I were to make-believe these things then the game would likely take on elements common to the avatarial and first-personal modes. However, at no point does the game of *Pong* encourage us to engage in such an imaginative project and the designers of the game most likely did not make the game with reference to such imaginative projects.

Of course, it should be noted that video games need not be primarily rendered in the cursorial mode in order to have elements common to said mode. Games which are mostly first-personal or avatarial in character can also employ a cursor in menus and mini-games etc. However, if one's primary means of exploring with and engaging in the virtual environment in question is that of a cursor then this is sufficient reason to include said game within the set: *cursorial*. As for the virtual modality which the cursorial delimits, obviously it differs from ordinary, daily modalities. I cannot conceive of any non-virtual interaction over the course of my entire life which has been even remotely cursorial. This is due primarily to the simple fact that I, as a fully embodied agent, inhabit a world which is spatio-temporally rich and expansive

in a way which cursorial virtual environments simply are not. The world of *Pong*, for instance, operates solely along the vectors of X and Y-axes—the latter being the sole recourse of the paddle which can only move up and down whereas the ball can move side to side as well. Because of the aforementioned restrictions, the cursorial mode limits one's interacts to simple inputs such as *moving* or *clicking*. When the sphere of one's interaction is so limited, all entities with which one interacts will be viewed as objects because the mode within which one operates is not latent with action-possibilities which bespeak things like agency and embodied subjectivity. If the only interactions available to one are those of moving and clicking (and so forth) then one's line of reasoning is going to track said interactions. Furthermore, since moving and clicking are not interactions which are rightly applicable to rational agents in any way,[97] one's categorization of the entities of game space as mere objects, devoid of any subjectivity, is a justifiable extension of the cursorial mode within the confines of which one's intentionality operates while immersed. The blind man, in using his stick to encounter a human being, does not treat said human in the same manner as the objects with which the stick collides during travel. He immediately recognises the human as a subject which stands apart from the objects in the surrounding environs in the same manner that a person with sight will attest. Human beings stick out by virtue of their agency (among other things). As such, when interacting within a game space which does not permit of agentive entities, one's interactions will not permit of the normative accoutrements of agentive discourse (i.e., empathy, respect, pity, disgust etc.)

[97] In my own experience at least, I can testify that I have never interacted with a rational agent *outside of these contexts* in a manner which would or could be described as 'moving or clicking' said agent after the fashion of a cursor or the objects which a cursor selects. My interactions with people on a daily basis are not in the cursorial or avatarial mode but rather in the first-personal mode.

Thus, when it comes to the matter of exporting one's presuppositions, the cursorial mode is too limited to provide fecund insights. However, the simplicity of the cursorial mode helps us to highlight the way in which the features of a virtual environment can affect the patterns of our interactions and presumably their corollaries in thought. This was achieved by paying close attention to the narrative, perspectival and action-oriented properties of the cursorial. As we now move onto an analysis of the avatarial and first-personal I will continue to pay close attention to these properties for the sake of coherency. In particular, it will reveal that there is a positive curve from cursorial to avatarial to first-personal when it comes to immersion because the modes in question enable more of the body's acting self to enter into prosthesis and thereby constitute a more authentic sense of presence. The more authentic the sense of presence, it will be shown later, the wider the set of action-possibilities and presuppositions become.

§ Phenomenology of Video Games III—the Avatarial

Examples of video games which adopt an avatarial mode would be *Tomb Raider* (Eidos, 2013) and *The Last of Us, Part II* (Naughty Dog, 2020). These games are avatarial in the sense that one's means of interaction (i.e., the shape that technological mediation with the game world takes) involves, primarily, a visible character model over which the player assumes control. In both of the aforementioned games, the player controls 3D rendered objects designed to look and act like human beings. Returning to our previous schema concerning *narrative, perspectival* and *action-oriented* elements of play, this time focusing on the avatar, we can assert the following:

- The player *is* invited by the game to assume certain things of the avatar. Some agency is attributed to it and it is supposed to invite some narrative or normative considerations.
- The avatar is not divorced from perspectival considerations. The avatar is supposed to have its own perspective in the game world and the player is sometimes invited to suppose that the avatar itself exists as part of a perspective generated by the game world.
- The avatar's actions often mimic that of humans and are sufficiently complex to be recognised as actions by a player. The avatar is supposed to invite considerations of agency and the avatar itself is often classified as an agent.

Avatars are depicted as performing a whole range of actions familiar to the player. Running, jumping, talking, punching and opening doors are just some of the actions familiar to the avatar. From a design perspective, this is to ensure that the avatar resembles an agent as much as possible (or as per the demands of the narrative)[98] and that the player can project themselves onto the avatar in question. This is most commonly achieved with recourse to direct human resemblance or with recourse to anthropomorphising a creature so that it at least apes human behaviour. As an agent in the game world (an extension of, and representative for, the player), the avatar unlocks a host of attributes common to agents. Agents have perspective, agents invite normative consideration, agents have feelings (and so forth).

[98] It is plausible to suggest that a video game developer may at no point (in character creation) make the conscious decision to imbue an avatar with agency-rich traits. It is reasonable to suggest that simply selecting certain narrative tropes invites certain interactions which themselves will be the conduit for agency. For instance, if one writes a story which involves an electronic hacking sequence then one immediately implies the existence of an avatar who is capable of the act of electronic hacking which presumably requires a degree of agency.

Already one can see how information presented to one through the avatarial mode is richer than that of the cursorial. One might want to say that the associated virtual modality is of a higher fidelity and that therefore the scope of one's experience is broader *eo ipso*. As a player: I can run, I can jump, I can talk, I can punch (etc.) and therefore, when I become immersed and incorporate the avatar into a digital prosthesis with myself, it is not unreasonable (in fact it is perfectly natural) that assumptions I make about the avatar exist in conjunction with assumptions about myself. I do not simply assume that the avatar is running or jumping but also that I am running or jumping. Much as I would not draw a distinction between my own actions and the actions of my prosthetic arm, I do not draw distinctions between my actions as an agent and the actions of my sufficiently agentive virtual representative, the avatar. It may be digital but it is my prosthetic in a very literal sense.[99]

Since it is the case that, from a phenomenological standpoint, it is I who is acting when the avatar in question jumps;[100] since it is my acting self which I wilfully use to navigate the experiential trajectory of the game world, it is unsurprising that I feel a greater degree of presence than with cursorial games. Avatar-based games, under Slater's definition, are more immersive because they facilitate a broader range of sensorimotor possibilities. Avatars are capable of moving (or at least seeming to move) along the coronal, sagittal and transverse planes much as I, myself can do. The environment of the avatar is therefore more complicated, more expansive, than that of the cursor in a way which links to action-possibility. After all,

[99] To be cut-off from the avatar (my prosthetic) via a loss of power can leave one reeling and feel very much like an amputation. From a phenomenological perspective, in particular with reference to the recalcitrant motor effects of such an experience, we have plenty of reason to use the language of prosthesis and amputation very literally.

[100] Sageng refers to such avatarial events as C-Fings, which introduces a disjunction *contra* whatever normal Fings are supposed to be. Since Sageng does not reveal any precise metric by which we can measure exactly where Fings end and C-Fings begin—and since Fings and C-Fings are both synonymous within the theoretical framework of my phenomenology (they feel the same and via prosthesis can be treated as such)—I do not see any need to adopt such rhetoric and indeed consider it unnecessary to our understanding of the situation.

actions are delimited by and relate to an environment. One cannot take the action of picking up a vase that is not present. When one speaks of possibilities for action, the word "possibility" is inextricably tied to and implies the existence of an environment because it is relative to said environment that said possibilities obtain. One might say that that is where the possibilities *are*. When I review my available actions in a game, I also, if only tacitly, review my available environment. The two can never be divorced. Therefore, the stuff of the avatar, much as with the cursor, is extant in either a game's action profile or environmental design. The presence of an avatar in a game will imply that, and can be used as a metric for determining whether, the technological apparatus of the game is immersive to such and such a degree. *Vice versa*, the presence of technological apparatus which is immersive to such and such a degree will imply that, and can be used as a metric for determining whether, the avatarial mode is extant.[101]

§ Phenomenology of Video Games IV—the First-Personal

Examples of video games which adopt a first-personal mode would be shooters like *Halo* (Bungee, 2001) and *Dear Esther* (Chinese Room, 2012). These games are first-personal in the sense that one's means of interaction (i.e., the shape that technological mediation with the game world takes) involves, primarily, the conceit of an eye-level, point-of-view camera. In both of the aforementioned games, the player sees the environment directly, as though looking out from a pair of eyes, and explores it from this perspective. Returning to our previous

[101] This is of course true of all virtual modes. The exact methods by which it would be determined are not stipulated by, and are not a project of, this thesis.

schema concerning *narrative, perspectival* and *action-oriented* elements of play, this time focusing on what we will call the first-person camera, we can assert the following:

- The player is often invited by the game to assume certain things of the first-person camera. For instance, the first-person camera is often treated as the eyes of a virtual body operated by the player. If so, then agency will be attributed to it and it will invite some narrative or normative considerations.
- The first-person camera exists as perspective from the beginning and grants the player direct access to the game world. The player is sometimes invited to suppose that the first-person camera itself exists as part of a perspective generated by the game world.
- The first-person camera's actions are experientially tied to the player[102] and as such are sufficiently complex to be recognised as wilful actions by a player. The first-person camera is also supposed to invite considerations of agency. However, in both these cases this is implicit as the player will likely assume the role of actor and agent.

First-person video games are some of the most popular of all and many famous video games belonging to the *immersive sim* sub-genre are all first-personal because of the running assumption that to ape human perspective will be immersive—which makes sense in Slater's terms. First-person games often do not present the player with evidence that they are controlling a character (outside of the narrative). If one pans the camera down one often cannot see one's own body—indeed there is little to no evidence of a body at all unless the

[102] Unlike a cursor or an avatar, a first-person camera will only ever do what the player could do in that context. Even if the camera flies through the air it does so in a way which the player would do had they such an ability. Humans navigate their lives from a first-personal perspective and so to mirror that perspective is to ground actions within a human framework.

player comes across a reflective surface (which in older games was impossible to render due to memory limitations). Instead, the player is left controlling a discorporate eye (or pair of eyes in the case of VR which can mimic peripheral as well as foveal vision) accompanied by the occasional noise which allegedly issues from this phantom being which one controls.

However, none of the aforementioned lack of evidence presents any problem to the player. Even a non-seasoned video gamer will immediately assume that the perspective afforded to them belongs to a human-esque caricature on the basis of the fact that the eyes stand in such a proximal relation to the ground that it implies a human form of approximately 6 feet, for instance. Even in cases wherein every effort is made to dissuade the player from assuming that they control a human (or indeed a being) of any kind there will still be the tacit assumption that the camera conceals an 'I'. This is because despite all attempts there remains the inalienable fact that as an embodied being 'I' exist in the first-personal mode. Therefore, if another first-personal perspective is presented to me then this automatically is assumed to qualify as a potential 'I'. Until I incorporate the camera-body into my corporeal schema via prosthesis this 'I' may be distinct to/other from my 'I' but it is inalienably an 'I'. For instance, in *Halo 3* (Bungie, 2007) the player is given the opportunity to enter into 'Forge Mode' which allows them to play around with a limited map designer. While in this virtual sandbox, one has access to a limited range of developer tools and can build their own environments for subsequent local or competitive play. During this process one utilises a freeform camera which is not fixed by the game engine's usual physical restrictions precisely because no in-game character is supposed to be attached to it. The player is simply operating a camera through which to view the game world and even this camera is not supposed to be part of the world which it views. However, even despite the fact that this camera-body is empty the player can still fill it. It is still the perspective from which 'I' interact with the environment around me and

as such it clearly still qualifies as an 'I' irrespective of whether or not it is fictional that there is any character to whom the 'I' is attributed.

Because of this direct agentive connection to the game world, very few tricks have to be employed in order to convince me that any aspects of the game are in fact targeted at me, tailored for me. The first-personal mode apes so many features of my natural mode (in turn allowing for a broader, more detailed prosthesis) which allows immersion to blur the lines somewhat. I do not suggest by this that presuppositions which I generate will somehow become 'truer' or possess a greater degree of truth but rather that said presuppositions become more salient—that is, they relate to me in a finer, more granular way because more of me is there in the world. The potency of their truth is such that it can, if only temporarily, trump truths pertaining to my embodied environs. The adventures of my acting self via the high-fidelity virtual modality of first-personal gameplay become so phenomenologically rich that they become the foreground of my experience and the seat of my judgements. Compared to the avatarial mode, the kind of thing which happens to the subject will be the same but of greater intensity. Thus, when considering the matter of presuppositions and implicit speech, one may say only that the set of presuppositions broadens by virtue of the fact that my environment, and its *field of affordances* (Gibson, 1979), have broadened.[103]

Unlike with the cursorial or avatarial modes, where the item which becomes incorporated into my corporeal schema via virtual prosthesis is obvious, the first-personal mode does not present us with a thing to be a seen, with a visible anchor for the acting self. Rather it is itself a way of seeing. One might therefore argue that prosthesis does not obtain with regard to first-personal games and that instead they are a subjective extension or

[103] As mentioned earlier, we will explore Gibson's work shortly.

relocation of sorts. The differences apparent between these modes are tackled in the work of Rune Klevjer which we will now examine to flesh out our understanding of avatarial and first-personal embodiment.

§ Enter the Avatar, Level I — Being in a Game

As we have remarked in a previous chapter, a video game differs from other containers of fiction (novels, films and so forth) in one essential respect: interaction. Video games, which offer high-fidelity simulations that facilitate increasingly broad levels of interactivity, speak to ownership in a way that other visual media does not. A player of a game really does participate in their own entertainment; a melange of author and audience, implicit in each step of a volitional project which offers real achievement and mastery in a world tailored to said involvement—a world which mimics the involved and purposive nature of being.[104] Gaming is an active process, a task-based agentive landscape latent with an embodied sense of possibility, risk, consequence, and so forth. We input commands during video game play which effect certain outcomes. Sometimes this even changes the story, thus altering the shape of what we consume. Often, a player's interactions with the game world are mediated by what is called an avatar, a character displayed on screen over which we assume direct control during sequences of play. It is the acting, and not the sensory, self that reaches towards this avatar, making of it a kind of virtual body.

[104] And by extension: of being in a world.

It is already clear at this juncture that the acting self, as we understand it, is in fact displaced. Throughout the course of playing *Ori and The Blind Forest* (Moon Studios, 2015) one can perform a double jump by pressing the same input (let us call it X) twice in a row. One's literal action when playing the game is to input X twice with one's thumb or finger but this is not what one reports or what one's intuitions record. Instead, one reports that one performed a double jump—and this seems perfectly self-evident and uncontroversial. As mentioned in an earlier chapter, scholars such as Sageng have taken interest in such action reports and have gone to great lengths to make sense of them. This is not my project here. What interests me is that the very fact these reports are commonly (almost universally) issued is strong evidence that the acting self has been displaced into another zone (as it were). Not just our immediate response mechanisms, but also extended cognitive processes now seem to be situated within the zone of the game-world. The underpinnings of this owe of course to motor-intentional and corporeal schema shifts but even knowing such things, useful and informative though it is, is superfluous to the simple fact that one's acting self has been displaced; has re-embodied itself within the on-screen avatar.

Super Mario, Sonic the Hedgehog and Crash Bandicoot[105] are all famous examples of avatars, all of which have obtained sufficient mainstream popularity to become company mascots at one time or another. A player assumes control of one of these characters and their exploration of the game world is tied to said avatar's movements (themselves a function of the player's movements in a general sense). Another important distinction between avatars—which perhaps owes to their interactive nature—is that unlike characters from other types of media, their primary function is not to be characters with whom the audience identify (or to

[105] Properties of Nintendo, SEGA and Sony Interactive respectively.

whom they relate emotionally) but rather to be vehicles for player agency. Fuller and Jenkins (1995) once described said avatars as "little more than a cursor" and later, Marie-Laure Ryan suggested that the cursor was "the minimal form" of said avatars (2001: 309). Even a cursory glance at an avatar reveals how different it is from its counterparts. How tied it is to notions of agency and action. (We have also shown how cursors and avatars can be seen as different).

One of the main ways this is accomplished is that avatars represent an embodiment of the player in the game world. When playing *Shadow of the Tomb Raider* (2018), Lara Croft not only mediates our ability to jump over obstacles, she also embodies the player's risk of failure at certain tasks such as falling down a trap hole. As Rune Klevjer notes, "a mouse cursor does not make the player belong to or *be* in the game environment in the same way." (2012: 17) As we will see shortly, this dovetails with the insights of Dolezal in an interesting manner. However, before we proceed into the minutiae of Klevjer's own work, let us show him the same level of rigour that we gave to Dolezal. Let us review the central concepts of his theory so that we can properly mobilise them as a springboard for our own investigation. The central concepts that we will address here are Klevjer's notions of Game Ego,[106] bodily extension, prosthetic agency and corporeality. He also touches upon the work of Husserl and Merleau-Ponty in much the same way that Dolezal does before him. We shall therefore take some time to analyse this for the sake of continuity.

In his essay *Enter the Avatar: The Phenomenology of Prosthetic Tele-presence In Computer Games*, Rune Klevjer begins by outlining his goal; a goal which is very similar to our own at this present time and so I will relate it here to frame the forthcoming discussion:

[106] Capitalised by Klevjer.

> To what does it refer when we talk about “being” in a game, or when we say that we are “in the shoes of” Lara Croft, Mario or Master Chief? How is it possible that we can, in certain types of games, act and react in an intuitive fashion, as if actually being inside the gameworld, when we are in fact in front of the screen, moving buttons and sticks on a game controller? (2012: 17)

Though he does not adopt the nomenclature of the acting self, Klevjer's insights relate to such a discussion with ease because he is referring to the same phenomenon, that of one's intentionality extending beyond the intuitive frame of *here* and into the distinct zone of the gameworld. However, unlike myself, Klevjer seeks to understand this interaction through the lens of the Game Ego because, as he himself admits, portions of his own theory have been informed by it. In *Computer Games as both Playground and Stage* (2006), Ulf Wilhelmsson outlines this notion:

> As a player you incorporate an agent, a Game Ego function, within the game environment. This exertion of control is an extension of the player’s own sensory motor system via a tactile motor/kinaesthetic link, why it is not only the controlled and perceived motion on a screen but also the experience of locomotion within an environment that is the result of this control. (. . .) The Game Ego is that function; the agency within the game that manifest the player’s presences allowing him or her to perform actions. (2006: 67)

There is a lot to unpack here but let us focus on those aspects which are relevant to this thesis. Firstly, though Wilhelmsson does not make direct citation to the work of Merleau-Ponty, one can see overt parallels with these claims and those made in the *Phenomenology of Perception.* In particular, Wilhelmsson notes that we "incorporate an agent" and that it is an "extension

of the player's own sensory motor system via a tactile motor/kinaesthetic link" (Ibid). These insights express the same truth that Merleau-Ponty expresses regarding the blind man and his stick. Wilhelmsson, and by extension Klevjer, essentially share my point that adopting the gamepad/controller system (which here serves as the tactile/kinaesthetic link) enables us to control and incorporate the avatar. Much like the blind man's stick extends his sphere of intentionality to include the navigable world, the gamepad extends the sphere of our intentionality to that of the virtual world. This much we already know and is not a new discovery. What is new is that Wilhelmsson attributes a name to such a connection, namely the Game Ego, which can be understood as the sense of agency/presence within the game that allow the player to perform actions by virtue of making them an actor in that environment. I am admittedly uncertain about the last point concerning actions. I do not think that the Game Ego is what allows us to perform actions within a gameworld. A sense of agency, presence, immersion *et al* will enhance or enrich the actions which one performs but one can easily play a video game without any of the aforementioned phenomena obtaining. Person N can play Video Game G without any such attention or investment—perhaps because they are directed to as part of an experiment, or because they wish to provide companionable entertainment for their child—which to my mind indicates that this last clause is spurious.

Klevjer seeks to understand the kind of scenario outlined by Wilhelmsson, where a tactile/kinaesthetic link enables control of a virtual entity, as a kind of prosthetic agency; it is as though the player is reaching into the gameworld via the use of an extended limb known as an avatar, a special sensory organ situated within and sensitive to stimulus in the gameworld. He writes: "Through the magic of real-time control, it is as if the player is reaching directly into the gameworld through a prosthesis, an extended limb." (2012: 18) This extended limb, this prosthesis, includes the avatar. To give some examples of how Wilhelmsson's Game

Ego would manifest in games, it could be anything from controlling the titular character in *Crash Bandicoot* (1996) to the first-person camera of *The Stanley Parable: Ultra Deluxe* (2022). Klevjer goes on to admit that this notion of Game Ego overlaps with his own tentative insights about avatars and how they mediate player agency from within the game world (which we will examine shortly). He also draws attention to the important fact that, according to Wilhelmsson, the Game Ego "is manifested not only through visible elements like blocks, vehicles or characters, but also through the player's experience of locomotion, of putting oneself into motion via the prosthetic link" (2012: 19). Bob Rehak writes very eloquently on this topic, particularly concerning avatars:

> Avatarial operations flow from two elements that interdepend in various ways. First is the foregrounding of an onscreen body, visible in whole or in part. Second is the conceit of an offscreen but assumed body constituted through the gaze of a mobile, player-controlled camera. Different articulations between camera-body and avatar-body lead to different, though related, modes of play and subject effects. In every case, the intent – to produce a sense of diegetic embodiment – announces itself from the dawn of video game history. (2003: 109)

The point, for Klevjer, is that all these different approaches hint at the video game industry's desire for a more visceral sense of immersion which is accomplished by a kind of prosthesis between player and avatar. Klevjer writes, "through prosthetic avatars we get to play with, and play through, extensions of our own being." (2012: 20) Let us now examine this notion of *extension*. In doing so, we will be able to compare it with Dolezal's comments on the acting self, showing how the latter extends to include the avatar on screen.

§ Enter the Avatar, Level II — Bodily Extension

The notion of the prosthetic avatar is interesting because whereas it follows the pattern of Merleau-Ponty's phenomenology it also goes one step further. For the blind man, the stick is the prosthetic but that does not also entail that the navigable world to which it grants access is also a prosthetic. However, the gamepad (as a prosthetic) grants access to an avatar which itself is also part of the prosthesis.[107] As Klevjer contends: "through prosthetic avatars, we get to play with, and play through, extensions of our own being." (Ibid) Here there is the tacit admission that we—in our capacity as acting self—have crossed some kind of transmedial divide. We have appended to our acting self a new virtual prosthetic which seemingly belongs not to our immediate world but rather to the virtual gameworld.

Let us for a moment assume that it is perfectly natural for a player to absorb an avatar into the corporeal schema, inviting a kind of transparency and motor-intentionality which is congruent with one of Merleau-Ponty's famous examples. Let us say, for the sake of argument, that whilst playing a video game a player incorporates the avatar, allowing the player to have an authentic sense of presence; of being within or acting from within the game world in question. Even if we were to grant all of the aforementioned, calling this kind of process a bodily extension raises a point of tension, namely: how can a player be said to be extending or reaching into a gameworld whilst also "being in" said gameworld? "How can avatarial embodiment be both a kind of extension and a kind of re-location at the same time? The idea of the bodily prosthesis seems to contradict the idea of embodied being or presence" (2012:

[107] This is the equivalent of a scenario wherein the blind man's stick, in addition to being a prosthetic itself, grants the blind man remote control over another prosthetic entity, i.e., some kind of homunculus.

20). Previously (2007), Klevjer has proposed a species of vicarious embodiment that combines traditional phenomenological notions of prosthesis with theories of fiction and simulation. He introduces an element of *fictionality*, wherein avatarial embodiment/prosthesis is viewed differently from other types (such as those examples given by Merleau-Ponty) because the avatar belongs to the simulated world of the game—something which the player acknowledges. He does however cast doubt on this view, going so far as to claim it at odds with phenomenology on a fundamental level. He writes:

> [The] avatar is different from a cursor because it belongs to the simulated world of the game. According to this approach, the avatar's status as a simulated and fictional body becomes essential to its definition. However, on closer scrutiny, could it really be said that avatarial embodiment is, at its heart, simulated embodiment? It is an attractive proposition, because it would seem to solve the conflict between extension and re-location. It would allow us to say that, whereas the concept of prosthesis addresses the nature of our actual embodiment here, the notion of simulated or fictional embodiment would adequately capture our re-located presence there […] However, while simulated bodies and simulated worlds are certainly crucial in the concrete articulations of the player-avatar relationship, as I will return to below, I would argue that, contrary to the claims I made earlier, theories of simulation and fiction are not necessary to explain the defining mechanisms of avatarial embodiment. Indeed, the notion of the avatar as a simulated body, however correct in any particular instance, can nevertheless be a misleading one, obscuring from view important phenomenological parameters of embodied engagement. (2012: 21)

There are more issues to the aforementioned approach other than those revolving around the conflict between extension and re-location. I will not digress too much but I feel that raising

these issues here may be salient later. Firstly, the claim that an avatar belongs to the simulated world of the game whilst the cursor does not is not as obvious as it seems. There are video games such as *Anachronox* (Ion Storm, 2001) in which a cursor is a part of the story/environment. In this example, the player controls an avatar named *Sylvester* through which they explore the game-world's environment. Accompanying him is his artificial secretary *Fatima* who pilots a small hover craft named the *LifeCursor* which is literally shaped like a mouse pointer. This cursor enables interaction with menus and objects by clicking on them in a manner which is continuous with a desktop mouse pointer. However, since it is part of the game's fiction that a character named *Fatima* is piloting this cursor, its movements are rendered canonical. Some might argue that this cursor is in fact a cursor-shaped avatar but when we contrast it against avatars like *Sylvester*, comparing their form and function, it does not seem parsimonious to hold this view. Furthermore, there are games such as *Thomas Was Alone* (Mike Bithell, 2012) which blur the boundaries between cursor and avatar. In this example, the player controls a range of two-dimensional, coloured blocks. The blocks do not have any anthropomorphic features, nor do they perform anthropomorphic acts (at least not explicitly). They mostly move left and right in a fashion very reminiscent to a cursor. The only thing which allows us to project a degree of agency onto the cursors is the running commentary provided by an invisible narrator—however, this does not necessarily entail that the cursors have become avatars. The most classic example can be found in rail shooters such as SEGA's *House of the Dead* franchise. The player is assumed to be in control of certain characters from the perspective of a first-person camera body. However, the actual item which a player moves is a cursor in the shape of a crosshair. Players move/point this crosshair at an approaching zombie and use it to shoot. However, it is not presumed to be the crosshair that is shooting, the crosshair is simply a mechanism which implies that the player's off-screen

character is shooting. Much as with Klevjer's earlier comments, the cursor mediates player agency in a manner similar to an avatar.

Another problem with the approach is that an avatar's belonging to the simulated world of the game does not itself motivate the move towards simulated bodies or simulated embodiment. Further phenomenological analysis is required to make this point adequately, which Klevjer himself admits. Therefore, let us pursue this line of reasoning and see how Klevjer comes to stand *vis-à-vis* extension and re-location.

§ Enter the Avatar, Level III — Extension vs Re-location

Let us remind ourselves of the issue here. Klevjer writes:

> How can we say that the player is extending or reaching into the gameworld, while at the same time also saying that the player is "being within" and "acting from within" the gameworld? How can avatarial embodiment be both a kind of extension and a kind of re-location at the same time? (2012: 20)

In the broadest of terms, *extension* implies that one's acting self remains situated in the actual world and merely reaches out to the gameworld. Contrariwise *re-location* seems to imply that one's acting self is displaced entirely, vanishing from the actual world and re-emerging within the game world. Since both states of affairs cannot obtain, we are left to question the notion of prosthesis and its limitations. In order to organise his thoughts, Klevjer returns to the

insights of Merleau-Ponty and reviews the notions of blind man and stick with which this thesis is already heavily saturated (and as such will not be repeated *ad nauseam*). Klevjer notes that Merleau-Ponty "emphasises the way in which objects (stick, typewriter, hat), when incorporated into our body, become invisible, unexpressed, cease to exist as external objects. They instead become part of the body as gestalt" (2012: 23). Here Klevjer is touching upon the aforementioned notions of transparency and the body schema. Our body, as something which is intuitively directed and postured towards a set of aims and tasks, is the invisible background against which our acting self—incorporating objects into a prosthesis or schema—exists. "A keyboard, a musical instrument, a gamepad, as a result of our hard effort and habituation, will alter the *I can* and thereby alter our bodily awareness, as it becomes part of the invisible, part of that by which we perceive and act" (2012: 24).[108]

Klevjer also draws attention to the fact that for Merleau-Ponty, the body is a "motor-intentionality"/"motor project" (1962/2002: 127). He quotes the following passage:

> I move external objects with the aid of my body, which takes hold of them in one place and shifts them to another. But my body itself I move directly, I do not find it at one point of objective space and transfer it to another, I have no need to look for it, it is already with me - I do not need to lead it towards the movement's completion, it is in contact with it from the start and propels itself towards that end. The relationships between my decision and my body are, in movement, magic ones (1962/2002: 108).

We have reviewed how Merleau-Ponty intends such things previously and so I will not repeat myself here. The problem arises when one tries to consider whether or not (when considering

[108] Italics present in the original text.

the above) an avatar falls under the same rules as, for instance, a blind man's stick. This is because the avatar, at least *prima facie*, does not seem to belong to our world, to our present environs, in the same sense that a stick does. Video games require us, in Klevjer's terms, to "extend our bodies across a material divide" (2012: 24). Assuming that this is the case, "what kind of object is it, exactly, that can be said to plug into our body as a prosthesis? The controller? The screen? The avatar? When I am playing, say Mario 64 (1996) or Halo (2001), what would be the "here" of my bodily space, and what would count as "external objects"? What would I, in Merleau-Ponty's words above, be "moving directly", as opposed to the stuff that I am moving "with the aid of my body"?" (2012: 25)

Klevjer thinks that the first answer is fairly straightforward, naming the core prosthetic element as the controller interface. From here he launches into a very detailed account of what he defines as 'arcade-action games' on the one hand and more modern 'action-adventure games' on the other. The former, Klevjer maintains, involves the use of cursors—which he is willing to award the title of avatar in a minimal sense—in a habitual process aiming towards fluent mastery in a manner which is akin to playing a musical instrument. He borrows from the prosaic musings of David Sudnow in his phenomenological self-study *Pilgrim in the Microworld: Eye, Mind and the Essence of Video Skill* (1983). Sudnow deliberately played hundreds of hours of the game *Breakout!* (Atari, 1978) and recorded his thoughts on the journey. He describes in poetic detail the "electro-umbilical hook-up" (1983: 23) that connects our hands to the cursor on screen. He writes:

> There's that space over there, this one over here, and we traverse the wired gap with motions that make us nonetheless feel in a balanced extending touch with things (1983: 37)

Klevjer seizes upon this notion of extending touch, using it as a platform for his own account of bodily extension. He argues that in games such as these—games that he refers to as instrument games on the basis that mastering them is habitual in a manner akin to musical instrument play—the "primary conceit, the primary "as if" of the player machine interaction […] is an experience of continuous physicality, of being in extended touch with on screen images" (2012: 25).[109] This does not entail that bodily extension is also a conceit, merely that the simulation of extended touch comes into play at the level of materiality. "Borrowing Umberto Eco's terms, we can say that screen space is given an "analogous function" (1976: 209) in relation to the physical reality of natural embodiment." (2012: 25).

As for the matter of prosthesis, in the kind of game about which Sudnow writes, it is not merely that the cursor is absorbed as prosthetic but rather that "the game as a whole, gamepad and screen, can be transformed into bodily prosthesis, incorporated as second nature in a way that is similar to the mastery of a musical instrument" (2012: 26). As Sudnow himself puts it:

> It's as if instead of truly incorporating the events on the screen within the framework of the body's natural way of moving and caring, the action on the screen must incorporate me, reducing or elevating me to some ideal plane of synaptic being through which the programmed co-incidences will take place. (1983: 138–139)

For Klevjer, these insights do not represent an extension of the body in its dual nature but rather something akin to the extension of pure subjectivity, "a Game Ego prosthesis in Wilhelmsson's terms, a kind of bodily self-awareness without external space, bodily habit as

[109] To my mind, Klevjer is describing the preconditions for flow state, though he does not touch upon this.

trance." (Ibid) This is akin to a kind of hypnotic mastery of patterns and rhythms. The world around me recedes, honing in on the events of the screen. My phenomenal attention is directed at the game, realigning my habitual motor-routines as is fit. Going all the way back to implicit assent; the framework within which I presuppose *such-and-such* has been transposed to the gameworld, the new locus of worldly activity for me. Much as with hypnosis, the couch on which I am decumbent is obviated in favour of new suggestions which promise an altered psycho-emotional landscape. I have not moved in objective space but my subjectivity has been reshaped, rewired, reopened to a field of affordances only accessible in the gameworld. I can now perceive new objects, master new skills which, when coupled with this kind of subliminal engagement, cease to be features of play but merely become brute, evident features of now. We might draw parallels with mastering an instrument because just as there comes a point where an instrument ceases to be a cumbersome tool and evolves into an extension of one's own body, this also happens with gameworlds. These kind of instrument games are fertile soil for things like flow state but do not elucidate the full relationship between player and avatar. In more modern, avatar-based games, there is always an external screen-space into which we extend our bodies, incorporating the avatar as prosthetic. In instrument games however, this relationship is blurry. Borrowing from Sudnow, Klevjer writes:

> [The] relationship between avatar and its on-screen environment, its external counterpart, its screen ecology, is indistinct and blurred, washed out along the path to fluent mastery. In the end, there is no speaking of the avatar versus the environment, only the controller and the screen as one organ, a hypnotic machine. (Ibid).

There is a lot to unpack here, not merely because Sudnow's penchant for floral language has percolated into Klevjer's own formulations, but because there are quite a few notable additions made herein. Klevjer admits that in the kind of games which Sudnow was playing, ancient arcade Atari games like *Pong* (1972) or *Breakout!* (1978), games which employ a cursor rather than an avatar, there is no extension of the body but rather a Game Ego prosthesis similar to that described by Wilhelmsson. In this trance-like state, the controller and screen become one organ, a hypnotic machine akin to that described by flow state. In contrast, modern action-adventure games seek to induce a sense of presence through immersion. They clarify and put into focus the avatar's relationship with the game world. As Klevjer notes, the rationale behind the type of prosthetic habituation which these games offer is "not to reach a delirium of the Game Ego, but rather to be able to perceive and act intuitively *within* an environment" (2012: 27). Furthermore, drawing from Husserl, he asserts that the "on-screen marionette becomes part of that through which a world comes into existence, part of the player's "I can" (Ibid). The world of the game offers us a new field of affordances. A new, value-laden perceptual ecology. James Gibson's formulation of the ecological dimension of perception summarises this nicely:

> Any substance, any surface, any layout has some affordance for benefit or injury to someone. Physics may be value-free, but ecology is not (1979/1986: 140).

For Klevjer, the prosthetic avatar reconfigures our body's ecology rather than our psychology. Avatarial embodiment is not, as Wilhelmsson might have it, a kind of trance or hypnotic conditioning but rather a reconfiguration of our perceptual field on the level of affordances. To further elucidate this ecological notion of affordances, let us revisit Gibson, who writes:

"The affordances of the environment are what it offers the animal, what it provides or furnishes, either for good or ill [...] [The word affordance] implies the complementarity of the animal and the environment." (1986: 127)

Coming to human beings specifically, an affordance is an affordance *for* someone, it exists relative to an agent. However, Gibson also contends that the fact that something is an affordance for said agent is an objective matter. That which affords (in particular) will vary dependent on personality, culture, skill-set and so forth but simply that it affords is definite. Much as Merleau-Ponty observed through the notion of corporeal schema that certain features of my environment exist for me—stand in relation to my body as action possibilities—so too does this notion of affordances cover similar ground. In fact, these two notions dovetail quite nicely, as has been noted by Nina Bonderup Dohn in *Affordances – A Merleau-Pontian Account*:

> The two concepts emerge as complementary ways of referring to the fact that concrete situations are, objectively seen, meaningfully structured relative to the actual skills of a particular agent. Thus, 'affordance' signifies that meaning is in the world, not in the head, and 'body schema' signifies that the world is meaningful because of what we can do in it. Together, they reciprocally signify that we as human beings live in a world not of our own mentalistic making, the meaning of which nonetheless transforms in accordance with what we learn to do. Even more importantly, the complementarity of the two concepts implies an interdependency of body and world, which is experientially, epistemologically, and, in respect of meaning at least, also ontologically primary. Finally, the dual notions of 'body schema' and 'affordance' suggest an understanding of agency as an immediate 'doing of what the situation calls for', i.e., an 'attuning of the body to the demands and possibilities of the situation' that does not rely on representation of these demands and possibilities. (2006: 5)

Klevjer draws heavily from Merleau-Ponty. The very notion of the prosthetic avatar owes itself to Merleau-Ponty's phenomenological explorations of the corporeal schema. It is no accident that there are distinct parallels between the way the blind man's corporeal schema changes in assimilation of the stick and the way the player's corporeal schema is argued to change in assimilation of the gamepad + avatar. A better example might be the one Merleau-Ponty uses of the car driver who assess a gap correctly. Where, in this example, does the subject's agency rest? It is not upon the literal steering wheel in my hands (which has become transparent) nor is it upon the chassis of my car. Rather my agency becomes situated at the point of the gap through which I am to pass. I perceive the world and either I can or I cannot. The gap has been assimilated. Now consider the example of a laser pointer. Over what does the laser pointer give me control? Most would attest that it is the movement of the red dot, which is the visually apparent aspect of the laser I am pointing. Much as with the steering wheel, few would attest that it is the literal device in my hands over which I gain control, rather it is the distant objects the movements of which track my intentions. By assimilating the laser pointer, I incorporate the dot into my agentive framework. Going further still, imagine someone had drawn a maze in chalk onto a black board. I could use the laser pointer to move the red dot through the maze in a fashion which now resembles a game of sorts. Add another player with a different-coloured pointer and I may begin to describe the red dot as 'me' and the blue dot as 'them'. From this vantage, we do not have to travel far in order to get to the avatar on the screen. By taking control of the gamepad, I do not merely assimilate the buttons into my corporeal schema. It is not merely the joystick and pause button which are rendered unto the lathe of the 'I can' but rather the avatar on screen. As we have seen by way of increment, this

may be different in degree from Merleau-Ponty's car example but it is not different in kind. It is phenomenologically natural.

Needless to say, Klevjer is fully aware of the extent to which the notions of corporeal schema and affordances complement one another—hence his own citation of Gibson. He writes: "The avatar alters our bodily space so that it (magically) extends into screen space, across the material divide, a new field of affordances, a new perceptual ecology." (2012: 28) Video games are just as much the products of our environment as we, ourselves, can be said to be. Furthermore, they are sometimes features of our environment which themselves afford new environments, shifting not only the set of affordances but, as noted earlier, presuppositions as well.[110]

However, unlike in Klevjer's last quote, I for one do not see anything "magical" about this process, nor do I see a "material divide." Video games and that which they afford (indeed exactly because of their affordances) are part of our perceptual ecology in an ordinary sense. *Lara Croft* and *Sonic the Hedgehog*, from a phenomenological perspective, are part of our environment in the same way as the chair or writing desk. It is therefore more than sensible to establish, as Klevjer does, that avatars or camera-bodies (etc.) can enter into prosthesis. However, his notion that these avatars are ultimately remotely controlled proxies is confusing. First, let us review how he reaches this conclusion, with reference to tele-presence.

§ Enter the Avatar, Level III — Tele-presence Revisited

[110] One is tied to the other. More on that soon.

Klevjer believes there are two types of avatarial embodiment; the third and first-personal. In regards to third-personal avatarial embodiment, Klevjer sees tension between the notions of extension and re-location, viewing the notion that the avatar is both bodily extension and embodied presence as a paradox. At first, he attempts to resolve this by appealing to Merleau-Ponty's theory of the body's dual nature as both subject and object. Similar to Dolezal's earlier commentary on the acting and sensory self, Klevjer adopts a similar strategy by assigning extension and re-location to the subjective and objective body. By creating these two compartments, Klevjer feels that he has eschewed any phenomenological hurdles. However, instead of stopping here and enshrining the player-screen relationship in the pre-existing foundations created by phenomenologists such as Merleau-Ponty, Klevjer decides to distinguish avatarial embodiment as something new and special. This is not necessarily unsound but does appear to be at odds with the scaffolding that he has been building hitherto. It seemed as though Klevjer was in the perfect position to normalise the prosthetic avatar but instead he takes a different strategy, viewing it as a marionette or proxy.[111]

> The avatar is no mere extension, I will suggest, but a prosthetic proxy, which extends the phenomenal body while also – unlike a walking stick or a musical instrument – filtering or channelling our body into shape and place, into screen space, and thereby also in an important sense "hiding" and protecting it, making it irrelevant in its original (non-extended) configuration. (2012: 28)

Again, it is slightly unclear why Klevjer thinks that this does not obtain in the case of the walking stick or musical instrument. It seems natural to me to assert that musical instruments

[111] Both terms which are lacking in descriptive power.

are capable of "filtering or channelling our body into shape and place"[112] and as for "hiding and protecting" the body, this seems congruent with bodily invisibility to the extent that treating it as novel is confusing. The kind of bodily objectivity that obtains whilst playing a video game does not differ in kind (nor necessarily in degree) from that which obtains whilst washing the dishes, mowing the lawn, or engaging in any other task-based activity which draws our attention away from our body, causing it to recede and become invisible. The acting self is thrown into the world of gardening, the sensory self, as nullpunkt, remains an absolute here, occluded by the acting self but never alienated by it. As pointed out by Bonderup Dohn, the dual notions of corporeal schema and affordances reveal that agency is constituted by an immediate attunement of the body to the demands and possibilities of the situation such that representation is not necessary. The on-screen world and its avatar are as immediate as any other aspect of my world.[113]

Though he distances himself from this question somewhat, it seems as though Klevjer's insights revolve around metaphysical assumptions about the ontology of screen-space. For Klevjer, there is this alleged material divide which we must cross in order to become immersed in the gameworld. The avatar is 'over there' and I am 'over here'. It is part of an external space which I can only access via proxy. In his own words:

> The marionette's key function is this: while it extends the body-subject and the corresponding bodily space into screen space, as argued above, it functions as a stand-in or replacement of our objective body, a proxy on our behalf. The prosthetic avatar allows us to engage in a playful and

[112] This line becomes even more blurred when playing video games like Guitar Hero (2005) wherein users have modified the game to be compatible with real electric guitars. In this case, instrument mastery is what allows the above process to obtain and including or not including an avatar does not change this.
[113] Sageng would have maintained that the reasons for this owe to its nature as a graphical environment.

> temporary separation of subjective and objective body, across the material divide. In the moment of being captured by and channelled through the avatar, the body that is here, safely seated on the couch, will be rendered irrelevant in its objective dimension, as an object among other objects, in Merleau-Ponty's terminology – as that which is being touched. Because the extended body-subject is instead directed towards what is happening on the screen, the marionette comes to function as a replacement of the objective body, becoming the new, temporary manifestation of the player's body in external space. In other words: as a body-subject I may be throwing myself into the playground, no barrels held, but as body-object I am participating through a stand-in, a proxy, an incarnation of myself, an avatar. (Ibid)

Naturally if one holds this view, it makes sense to consider the player-avatar relationship as distinct from the player-instrument relationship. It is also perfectly sensible to introduce the notion of a "proxy" which, in turn, leads us on to tele-presence as promised. After all, if the avatar is, as Klevjer contends, a remote-controlled proxy then it makes sense to consider its environment a remote one. Furthermore, it becomes wise to turn to tele-presence when we have already seen the insights it can yield.

Let us now turn to first-personal avatarial embodiment which, instead of utilising a traditional 3D model as proxy, employs a first person camera-body. This first person camera-body is more phenomenologically interesting for Klevjer because it incorporates a greater degree of the body's sensorimotor capabilities. The "camera-body of the first person avatar offers the screen itself as the principal prosthetic hook-up, working as an extension of our body's "motor project" of moving-and-looking" (2012: 31). Here there is no proxy at work, rather the whole of screen-space becomes adapted to the corporeal schema, opening us up to a new field of affordances and vanishing in the process. He writes: "your new camera-body becomes like a part of your own body, part of the invisible in Merleau-Ponty's terminology,

part of that for which there are visible objects." (Ibid) Furthermore, giving reference to the notion of tele-presence, he writes:

> the "here" of my bodily space is no longer my physical body's natural space, in front of the miniature sub-space of the screen. Instead, paradoxically, my new "here" has been re-located into screen space there; I am tele-present in that space. When captured by the avatar, I am phenomenally present elsewhere. […] The incorporation of the screen as a new perceptual organ sets up a new, "double horizon of external and bodily space" that is not directed towards screen-space … but which is spatially re-located and anchored within it. The first person avatar, therefore, is a distinctive modality of perceptual immersion. Being re-located and telepresent through the camera-body means that we have become perceptually encapsulated without being sensorially encapsulated. […] The camera-body that extends from our fingers is not an extension of a pure vision, not a vehicle of visual "perspective". It is an extension of our moving-and-perceiving body, in its dual nature as both subject and object in the world. (2012: 30-32)

If we plug-in Dolezal's terminology (since we are discussing tele-presence) then what Klevjer is suggesting is that the acting self is re-located to screen space via being captured by the avatar, thus becoming tele-present there whilst my sensory self, my objective body, remains rooted in the absolute here from which I cannot distance myself. This is accomplished by incorporating the screen as a new perceptual organ, much as the blind man incorporates his stick. It is a matter of adapting to a new field of affordances and is therefore a continuation of the phenomenological tradition. This is the case *sensu stricta* and does not require any commitment to a theory of virtuality, fiction or make-believe. As Klevjer notes, it is "a trick at the level of the phenomenology of the body, not a trick of fiction" (2012: 29). The technological facets of video game interfaces (such as locomotion and dual-axis movement)

help to evoke the bodily disposition of piloting a vehicle in which our acting self is housed. “In a very concrete sense, this is evident from comparing computer game controllers with the control devices for remote-controlled vehicles of various kinds,” Klevjer writes, drawing attention to this *driven* nature of avatar-based play. “If we look at scientific and military technology, there is a clear analogy between tele-presence through avatars and tele-presence through so-called drones, or Remotely Operated Vehicles (ROV)” (2012: 35).

For Klevjer, the aforementioned insights are more than just useful metaphors with a high degree of descriptive power, rather they outline the phenomenological displacement of the acting self. This conflation of avatarial embodiment with the remote control realities of driving a vehicle is not a conceit but rather an evocation of the sensorimotor mosaic of the body. “The notion of driving is not a metaphor in this case; the reason why computer game avatars feel like piloted vehicles or machines is that they are actually driven by the player” (Ibid). The word driven is being used in a manner which is consistent with Merleau-Ponty’s example of the car owner and the gap; driven in a sense which bespeaks the task-based action-possibilities/capabilities of the body. Driven not simply by a body but as a body. In cases where we are driving first person camera-bodies, this falls under the phenomenon of “prosthetic tele-presence” (which he considers as actual embodied presence rather than a mental projection)[114] whereas in cases where we are driving third-person 3D models, this falls under the phenomenon of “prosthetic proxy embodiment.” (2012: 36)

The main qualms I have with Klevjer’s account (however minor) revolve around the use of notions such as proxy embodiment and tele-presence—the former of which I will now argue is not sensible and the latter of which is based on mistaken ontological commitments

[114] It is an interesting admission that Klevjer seems to introduce here. Prior to this, he had never labelled third person avatars as involving mental projections but this seems to indicate otherwise.

about screen-space.[115] I will accomplish the former with reference to A) Husserl's notion of *nullpunkt,* B) Merleau-Ponty's notions of schema/transparency and C) Gibson's notion of affordances. I will accomplish the latter with reference to Dolezal's insights on tele-presence, with particular focus on the IW case study coupled with Chalmer's insights on virtual realism. Finally, I will show how Slater's account of immersion and Chalmer's account of *cognitive orientation* combine to generate new insights about the phenomenology of playing video games. Once accomplished, I will be in a position provide a novel account of how it is that highly immersive, realistic video games can potentially influence a player through the aforementioned systems of presupposition and implicit assent.

§ Enter the Avatar, Level IV — Objects May be Closer Than They Appear

For Klevjer, avatar-based games which give the player control of 3D character models such as *Lara Croft* generate what he calls proxy embodiment. These avatars are comparable to marionettes—or remote operated vehicles such as a toy car, insofar as we pilot them from afar as though they were vehicles. This seems intuitive to Klevjer for a number of reasons, the foremost among them being similarities in the design of a toy car controller and a traditional console gamepad. Another reason lay in the fact that, unlike with first-person games, 3D avatar-based games do not mimic embodied perspective, I perceive (and control) *Lara Croft's* movements from the outside, much in the same fashion as a remotely operated drone. At

[115] Or kindred notions of game world such as simulations, virtual environments and so forth.

best, where certain games are concerned,[116] Klevjer is willing to admit that one could consider the player has operating this marionette like an extended hand, navigating it "from a position *inside* the screen-rendered world, travelling along with the marionette like a Siamese twin" (2012: 34).[117] This is somewhat closer to what I wish to espouse but is not strong enough. This metaphor of the Siamese twin actually provides sufficient grounds to abandon the notions of marionette or proxy entirely and instead motivates a return to authentic embodied presence.

Let us return to the observation that avatars such as *Lara Croft* are similar to remote control vehicles (RCVs henceforth) such as toy cars. This analogy, whilst sensible to a certain degree, changes when viewed with closer scrutiny. Avatars are not like RCVs in at least one crucial respect, namely that when I push forward on my RCV controller, the toy car (for instance) shoots off down the road and gets further away from me. In contrast, when piloting *Lara Croft*, I can push forward on the gamepad for as long as I like but she will never get any further away from me. Indeed, it does not make sense to measure the distance between *Lara Croft* and myself because she does not stand in proximal relation to me at all—no virtual avatar does. As has been previously outlined, I absorb *Lara Croft* into my corporeal schema, shifting my body's motor-intentional framework to enable skill within the gameworld. She becomes part of my body in its dual nature; part of my subjective body or acting self. Much as Husserl noted that the body is *nullpunkt*, an absolute here from which I cannot distance myself, so too am I unable to distance myself from *Lara Croft*. She is no more a marionette or proxy than I

[116] Ones which simulate a sort of 'follow cam' which tracks the movements of the 3D model.
[117] Italics were used as emphasis by Klevjer in the original text; they were not added by this author.

am. The new field of affordances that the avatar offers to me are not proxy affordances. I see no reason to consider avatarial embodiment as proxy embodiment.[118]

So, what is happening here? First, we claimed that assimilation of an avatar is reminiscent of the blind man and his stick but now we find that we are rooted to this avatar like a Siamese twin. I can release the gamepad from my control (much as the blind man can release the stick) and doing so severs my connection to the avatar, amputating it from my corporeal schema. Yet, undoubtedly, even when I am not in control of *Lara Croft*, she has still not moved. Is this some kind of trick on the level of fiction? Perhaps a conceit of screen-space or simulations in general? These questions will be answered shortly but first we must lay more foundations by undermining the notion that there is any kind of tele-presence involved.

As has been noted previously, Dolezal distinguishes four types of tele-presence. It is clear from Klevjer's writings that, when he references tele-presence, he is concerned with the same branch of tele-presence as is Dolezal: namely *enriched tele-presence*.[119] However, let us remind ourselves of two important observations about tele-presence which Dolezal brings to light throughout the course of her study. The first being that tele-presence pertains to a "temporally or spatially distant real environment" (2009: 208) and the second being that "proprioception is a fundamental element in the experience of agency and ownership of action […] [the] coincidence of proprioceptive sensations to visual feedback of motion is the mechanism that induces a sense of ownership of action" (p. 219). If one is to accept tele-

[118] To my mind, as I have hinted beforehand, the inclusion of terms such as marionette or proxy are the function of ontological worries but a phenomenological examination of the relationship between player and avatar has no need of ontology. Whatever may be the case ontologically is a separate matter.

[119] Enriched Tele-presence, involving multisensory feedback, where movements of the user are precise and intentional and, to an extent, mirrored in the remote environment (Dolezal, 2009, p. 210). Klevjer never indicates that the avatar relationship is as basic as 'webcam interactions' or 'remote missile launches', nor does he indicate that it is as complex as complete sensorimotor embodiment.

presence on these terms[120] then it stands to reason that Klevjer is happy to consider screen-space and the gameworld it presents as remote. Klevjer is also happy to admit, though he uses slightly different nomenclature, that the acting self can be transported into another setting "across the material divide" (Klevjer, 2012). This is consistent with Dolezal's attention to the empirical findings of the IW case study. She writes: "As has been demonstrated with Cole, IW, and Sack's robot experience […] it is distinctly possible to displace the acting self. That is, it is possible to transfer bodily intentionality to a remote apparatus and have precise and skilled motor movements mirrored in a distant setting." (2009: 221)

Hitherto we have neglected to note something important about the IW case, namely that the feelings of the authors of that experiment relate to what they *perceive* to be the case as opposed to what is actually the case. Immersion, as Slater has defined, may be an objective property of a system but presence is not. It is subjective; it is a *feeling* and many things can influence feelings—such as that which one perceives. Take the following excerpt from the experiment in question: "Making a movement and seeing it effected successfully led to a strong sense of embodiment within the robot arms and body. This was manifest in one particular occasion when one of us thought that he had better be careful for if he dropped a wrench it would land on his leg!" (Cole, Sacks, and Waterman, 2000: 167). Turns of phrase such as 'sense of' and 'thought that' are very personal constructions, themselves a product of the coincidence between proprioceptive feedback and visual stimuli. Notice that said coincidence need not be veridical, only apparent. I have had countless experiences similar to this in VR (and indeed in basic video games) and I dare bet many others would report the same. The fact that the IW case involved a real remote environment is not what induced

[120] which for all intents and purposes Klevjer seems to do (at least one does not have sufficient reason to presume that Klevjer is using tele-presence in a special way).

presence or ownership of action—the locus of these feelings is the body. The body exists in relation to its environment irrespective of the status of the environment in question. A real environment is no more intentional than a fake one. As a matter of fact, for the body, there is no fake environment, only that which is there.

I have already shown in a previous chapter, with reference to Chalmers, why it can be parsimonious to consider virtual environments (themselves composites of virtual objects, properties and events) as real, digital environments accessed/expressed in a virtual way. What is important to note at this juncture is not that virtual worlds, and their avatars, are real but that they are *not remote*. As promised earlier, let us now revisit the matter of the unmoving avatar from which I cannot distance myself.

§ Enter the Avatar, Level V — Subjects May be Closer Than They Appear

As we have seen before, Klevjer invokes the analogy of the avatar as a marionette to which we are attached by a series of invisible strings, as though we are being pulled along for the ride like a conjoined twin.[121] Notice that under this account we are not the stoic puppet master, manipulating the marionette as a discorporate deity, but rather we are being dragged

[121] It should be clarified that Klevjer is being somewhat prosaic when he uses the phrase "pulled along." He is referring not to something which actually happens to the player but rather to a conceit of the game. Our phenomenal attention is focused on an avatar which we move. In order to keep the avatar in focus, in centre-screen, the camera must also move. This movement, whilst a consequence of our actions, was not the literal movement that we tried to engender when operating the avatar. It is more like the camera, that which grants us perspective on the virtual environment and the on-screen avatar, is inextricably affixed to the avatar. Thus, when we move the avatar, we effect two movements. One is the movement we intend, the movement of a character in their environment. The other is the movement of the camera, the implicit movement of our eye-line, our point-of-view, which is always dragging behind.

along; something is not just happening because of us but *to* us as well. The RCV does not drag us along even though it moves further from us whilst incorporated into our corporeal schema. However, the avatar seems to pull us along for the ride even though it travels no distance at all. So, what is going on precisely?

The truth is, despite how Klevjer conceives of it, we are not being dragged along at all, nor does it seem as though we are. When playing avatar-based games, it is the avatar that I control and as such the avatar is the locus of my ownership of action in the gameworld. As I proceed towards skilful mastery of the game's mechanics, the set of proprioceptive information which constitutes my corporeal schema expands to include that which is relative to the avatar's environment. Instead of intuitively perceiving, as Merleau-Ponty's proverbial driver does, whether or not my car can fit through a gap, instead I intuitively perceive whether or not my avatar can fit through a gap. The knowledge implicit within my body, part and parcel of embodied subjectivity, is disposed towards the world of the game. However, it is important to note that in the example of the car I do not think 'my car can make the gap', because my agentive framework has incorporated the vehicle, my ownership rendering it as invisible as my body—the latter of which is postured towards its tasks, towards the gap. As such, when I approach, I simply think 'I can make the gap'. Similarly, when I move the avatar towards a gap the same thing happens. I simply think 'I can make the gap'. This is due to the fact that the ontological status of the avatar does not play a role in constituting my embodied subjectivity. My body is always postured towards its tasks, towards the action-possibilities of my environment, and therefore insofar as video games facilitate/involve task-based motor-intentionality, they will be ample candidates for my acting self.

Knowing this, it seems dubious for Klevjer to contend that avatar-based games pull us along for the ride because that would imply that my attention is focused upon the implicit

camera when in fact it is not. The camera is necessary in order for me to perceive the 3D model of the avatar but irrespective of this it is the avatar upon which I concentrate. The camera is a passive observer, an intangible conceit the function of which is to enable play. It is a background utility rather than a noticeable apparatus. Some might query the use of the term background on a technical basis, claiming that if the camera is set up to allow the player to view their avatar from behind then surely it is, even in conceit, closer to the player. This objection misses the fundamental point that the avatar is supposed to be present but the camera is not. The camera is merely a means to an end, that end being to bring into focus and foreground the position of the avatar in the gameworld. It's existence is a mark of technological limitation. In fact, as VR technology progresses and the presupposed camera is brought closer to the human eye, it becomes more and more needless to consider its existence. One day perhaps, we will engage with the kind of high-fidelity tele-presence which Dolezal hints at. Video games will plug directly into our brain, literally stimulating visual centres and generating the imagery without need for a camera. The point is that the camera is not supposed to be there and this is reflected in the phenomenology of play. We do not see the camera first and avatar second any more than we see an open window first and the RCV outside second. The avatar is not the illusion, the camera is the illusion. It does not pull us along and the only time it would appear to do so is if there was an issue with immersion.

To further elucidate this whole picture, let us return to Wade, the steadfast protagonist of our analogies hitherto.

- Wade boots up his PS5 and prepares to play *Horizon: Forbidden West* (Guerrilla Games)
- Wade takes hold of the gamepad, his means of control within the gameworld

- Wade's avatar, Aloy, appears on-screen, herself a graphical expression of a virtual object grounded in a data structure(s).
- Thanks to the gamepad, Wade gains control over Aloy's movements. *Horizon* is an immersive game in Slater's terms because it utilises a broad range of sensorimotor interactions including visual/audio cues, motion control features, haptic feedback etc.
- Through the "electro-umbilical hook-up" of the gamepad and screen, coupled with the game's immersive nature, Wade assimilates Aloy into his corporeal schema, inducing a sense of presence.
- Wade's motor-intentional agentive framework has shifted to the world of the game, almost as though he is really there, exploring the forbidden west. The virtual environment which is graphically present on the surface of his flat-screen TV is now the locus of his acting self.
- The images which he perceives open a new field of affordances to him, each new virtual object (expressed graphically) of the gameworld being value-laden and bespeaking action-possibilities in the same way as non-virtual objects, i.e., "I can (*ich kann*) make that gap."
- The values latent within these objects, the action-possibilities which they afford, are available to Wade at the level of perception, not cognition.
- What Wade knows may provide cognitive orientation to what he perceives, giving a sort of global background to what is perceived, but ultimately the values latent in virtual objects are available in an act of perception.[122]
- Wade's avatarial prosthesis is complete. He looks, turns, runs and jumps via Aloy, the virtual kin to the blind man's stick.
- Suddenly power to the game is cut-off, erasing the picture on screen. Wade's connection to his avatar is severed, amputating a portion of his acting self, leaving him momentarily jarred. He must take a brief moment to divorce his motor-routines from the world towards which

[122] Even if said acts of perception were contingent upon certain cognitive faculties, this would not render them non-perceptive in nature. Something can be distinct from that upon which it is contingent.

> they still tend, re-situating his acting self to the couch on which his steadfast sensory self, his absolute here, reposes unafflicted.

The degree to which all of the above obtains will vary from person to person. It will also depend largely upon immersion in Slater's terms. The technological features of the game apparatus in question will have an impact upon the extent to which one feels present, extends ownership, is able to incorporate items into one's corporeal schema and so forth. Therefore, from a design perspective, the phenomenological features of video game play are of interest to video game developers who wish to make their games more engaging and interactive. The medium through which media is expressed is just as important to a valuable play experience as that which is expressed. Technology is a varied delivery mechanism which, when utilised in its complexity, can engender a state desirable to both player and developer. A video game natural attitude, as it were. An ordinary way of being in the gameworld.

§ Enter the Avatar, Final Boss — Affordances and Presupposition

In the previous Wade formulations, we made use of the term *cognitive orientation*. This can be defined as a set of background assumptions/information about the world which guide the way in which things are perceived. Things like proprioceptive information can be included in one's cognitive orientation. The term was introduced by David Chalmers in his aforementioned essay, *The Virtual and the Real*. Chalmers takes some time to consider whether perception of virtual objects might be illusory based on the detractions of some of his philosophical

opponents. He uses an analogy involving perception and mirrors, in particular a car's rear view mirror. He claims that it is phenomenologically incorrect to consider that a driver, seeing that a car is behind them using a rear-view mirror, is having a visual illusion wherein the cars are in front of them, pointing towards them. For Chalmers, when one uses a rear-view mirror, the cars which a person sees look to be behind them.

He also suggests that these cars *look to be behind in the strictest sense*, i.e., that the act of perception reveals them to be behind us, not in front of us. He does not suggest, as some might, that the cars look to be behind us but only in the sense where "look" is tied to judgement and other aspects of cognition (i.e., at the level of visual perception, visual experience represents the car as being in front of us even though we know it to be behind us). To establish this, Chalmers uses a thought experiment to demonstrate that there are features of the rear-view mirror case which differentiate it from cases wherein optical illusions are generated by mirrors, thus marking it as a non-illusory visual experience. One obvious feature, for Chalmers, is the role of knowledge in framing our visual experience. If a subject knows that a mirror is present, it will alter the phenomenological character of the experience in question. Chalmers asks us to consider two cases wherein subjects are told to view a chair. One of the subjects is told that they are viewing the chair via a mirror, the other is told that there are viewing a chair via a window. For Chalmers, this is sufficient to generate the intuition that the two subjects may have different visual experiences. For one subject, the chair would appear to be on the near side of the glass and for the other subject the chair would appear to be on the far side. He asserts that this also extends to video, using the example of a rear-view camera instead of a mirror.

From here, he makes an intuitive leap to VR, arguing that there are sufficient parallels to make the comparison salient. One of which being that if one were to reproduce the

aforementioned scenario virtually, it would not change the way in which the car is perceived. Consider the previous example of the arcade cabinet in *The Lab* (Valve). Once again, the body does not need to track the ontological status of the arcade cabinet; simply perceiving its form and recognising it as an arcade cabinet unlocks a certain field of affordances, allows the body to be postured towards the arcade cabinet in a way which is, at least in part, aided by a cognitive orientation built upon pre-existing knowledge.

What is of importance here is his notion of cognitive orientation. In the first example, knowledge of mirrors, built upon familiarisation through use, gives one a distinct cognitive orientation towards mirrors. This is the same with visual experience of video or VR; if one were unaware that they were experiencing VR it may cause confusion and provoke illusory experiences but through repetitive use, one comes to *know what to expect* from VR, thus altering the phenomenology of visual experiences relating to VR. For Chalmers, this is not evidence that what is seen via an act of perception is illusory, meanwhile the real work is done through cognitive act. Rather, this is evidence that what we believe to be the case, our background knowledge about something, can orient us to the perceived world in unique ways, "giving a global interpretation to what is perceived" (2014: 160). The main point to take away is that even though knowledge can alter *what we see*, even though perception may be contingent upon cognition to some extent, that does not render *what we see* a non-perceptual act. Cognitive faculties of the brain may be involved in the exact shape of perception, guiding it implicitly, but perception is ultimately that: perception. Now that we have this fact fixed firmly within our minds, let us adapt the general relationship between *cognitive orientation* and *perception* to a more particular case. Namely, *presupposition* and *affordances*.

As we have established, affordances, in the Gibsonian sense, are real, value-laden features of our environment which are made available to us through an act of perception. The

interwoven lattices of meaning, the tangled fabric of action-possibilities, appear to our senses directly. That which something affords to the subject is something which is seen, which is heard, which is felt. As with other forms of perception, it makes sense to say that this is somewhat grounded in a system of cognition, that there is a relationship between perceptual frameworks and cognitive frameworks. One's cognitive orientation, as Chalmers would put it, influences the set of affordances which are plausible. A chimpanzee has a different set of affordances to a PC gamer for instance because recognition, whereas it is undoubtedly a species of perception, is built upon habitual patterns of familiarisation—which in turn represent a kind of background knowledge or global interpretation which is built into the body. Such knowledge is embedded in the way the body perceives and acts; it is part and parcel of embodied subjectivity. Since each creature's embodied subjectivity is relative to the creature in question, so will be the affordances to some extent.

However, despite the differences in that which affords, the simple fact that something affords is immutable. Knowing all of this, let us return to the insights of chapter one, wherein we talked about presuppositions. Adapting Lewis' *rule of accommodation* (1970), Langton and West (1999) showed how presuppositions can also have impacts on conversational score. Following their vision, I argued that presuppositions generate implicit propositions to which we assent tacitly, thus changing the score and preserving the truth or acceptability of said propositions. Later, we showed how presentations of women in certain video games, ones marred by sexist tropes and stereotypes, could influence a naïve player such as Wade who had had few interactions with real women. This was supported by an oversight within the empirical literature which referenced immersive games.

At this juncture, what is important to note is that the thing *which is being influenced* is Wade's field of affordances. Whether or not biases and prejudices towards women stem

from the game or from a wider social structure of sexism which surrounds the game does not alter the basic fact that the game *affords* certain things about women. The game makes available action-possibilities towards women which are objectifying—if we re-examine the results of the study by Heflick et al (2014), one might argue that that which the game affords about women is continuous with affordances pertaining to objects as opposed to subjects. Wade's presuppositions about female beauty or behaviour, if sufficient in frequency, can affect his cognitive orientation, encumbering it with bias. Since cognitive orientation affects affordances we can say that by way of transitive property, presuppositions affect affordances.

Consider the following…

- Wade plays video game X and becomes immersed.
- Video game X presents women with qualities φ and ψ
- "φ and ψ" represent implicit speech within the game which Wade is unable to notice or resist because they are introduced as/rest upon presuppositions.
- Wade assents to this, thus presupposing P about women.
- This process continues numerous times, potentially reinforcing Wade's presuppositions to the point in which they form a general rule which is now part of his cognitive orientation towards women.
- Wade's cognitive orientation acts as a tacit background to his perceptual framework[123]
- Wade's field of affordances, as something which he perceives, is subtly altered by his cognitive orientation (itself built upon patterns of familiarisation regarding action).
- Certain games may now afford certain things about women; the environmental action-possibilities that Wade perceives vis-à-vis women have shifted in a manner which reflects

[123] A perceptual framework, in this instance, can be considered the set (or scope) of possible perceptions.

the empirical findings of the first chapter, namely that they can be perceived and treated as objects lacking agency.

- These affordances, these action-possibilities, exist relative to Wade insofar as he is immersed in the game. If he is present via an avatar imbued with his acting self, then the above set of action-possibilities will be "unlocked"—rendered as sensible additions to his environment by virtue of the fact that his acting self is there; that is where he acts.

Thus, to be immersed in an environment is to unlock its affordances. A sense of presence allows one's cognitive orientation to attend to or track an environment in a way which opens its action-possibilities precisely because, as per a trick on behalf of the phenomenology of embodied subjectivity, that is the world towards which my body is postured. That is where I am (in my capacity as acting self). For the body, a virtual world is no less legitimate than a non-virtual one. Implicit speech conveyed by it is just as potent, just as likely to be a vehicle for/generator of presuppositions, as it would be if it came from anywhere else.

As for concerns about export or video games instilling bad habits: if video game X affords certain things about women which a player subsequently acts upon (i.e., that a female character dressed a certain way is an opportunity, represents an action-possibility, for sexual gratification), this player is likely to have already presupposed the relevant facts about women based on their background assumptions. Therefore, the notion of export no longer seems tenable because said presuppositions already belong to a person's system of beliefs and so cannot be exported into it. However, returning to the rule of accommodation (the heuristic which governs changes to score), if the implicit features of the game make it such that the truth or acceptability of certain elements depend upon presupposing pernicious things then we do have grounds for concern wherein that game is concerned. Thus, we are left with a kind

of two-way process. On the one hand, one's cognitive orientation may already dispose one towards women in such a way, thus the video game is not responsible. On the other hand, if one's cognitive orientation becomes a certain way due to overexposure to certain video games, then responsibility shifts.[124] Therefore, as we have hinted earlier, it seems as though on the one hand what is presupposed as true of the real world affects the affordances of the game. On the other, that which happens in the game can introduce new presuppositions and so forth.

In any case, the take-away from this is that there is a phenomenological way of understanding what is going on in these cases. Players are perceiving a graphically-rendered VR environment which is value-laden in the same way as anything else which is perceived and so affords certain things. Specific details about that which affords will differ depending on one's cognitive orientation, one's set of background assumptions about the world but simply *that something affords* is beyond rebuke. That which affords is seen and absorbed on the level of perception. If there are any pernicious elements then these are seen in a non-illusory sense. As for presupposition: the video game's explicit speech/features are easy to identify and interrogate but the implicit speech/features can be more elusive. Whilst immersed, these implicit features[125] may open up presuppositions that would otherwise be unavailable because of the relative position of one's agency. An unintended consequence of this process is that one might grant implicit assent to pejorative propositions (say about women) that influence one's cognitive orientation, in turn guiding the field of affordances, opening action-

[124] Not to the video game *qua* video game but for the content which it conveys. Even if video games do contain pernicious content, the concern will always be a wider social one, a question of *how did we get here*?
[125] themselves perhaps only implicit because they are buried under pre-existing biases which are part of one's background assumptions or cognitive orientation

possibilities towards female characters which generate new presuppositions and thus starting the vicious cycle all over again.

Whether or not this will happen is highly variable but the fact that it can happen and more importantly, that whatever happens does so as a product of phenomenological facts about immersion, can be of great insight to both players and developers when it comes to creating and consuming games. Knowing how immersion impacts agency and ownership can aid designers in being more mindful of the content which they include and how it is experienced by the subject.

These insights are also of note to anyone who wishes to open a forum of discussion or critique concerning the pernicious aspects of games because it enables one to do so in a neutral manner without commitment to any social or political ideology, merely with reference to how perception works. It prevents the kind of silencing that feminist scholarship has had to suffer repeatedly on the grounds that concerns relate to things which are *fictional* or otherwise *unreal* because the concerns relate not to the ontological, fictive, ludic, virtual or make-believe status of any objects, properties or events but simply to what is seen. It is also charitable as an account. It does not place blame squarely upon any side of the debate, nor does it suggest brainwashing or indoctrination. It simply provides a new way of viewing how video games could potentially affect player belief/behaviour. It may not be an exhaustive account, but as the oversight within a modern meta-analysis of the empirical literature shows, it is both original and overlooked.

Conclusions

As stated from the outset, this thesis has not been able to, nor did it intend to, determine whether or not video games are to blame for any prevalent social trends. It was never the intention of this thesis to point fingers and issue moral accusations. Rather, the only thing to be discovered was an original way of viewing how video games could potentially affect player belief/behaviour drawn from empirical oversight.

As such, the project was quite limited in scope, seeking to look at those rare margin cases and give philosophical treatment therein. Many chapters later and here we are, in possession of a number of tentative conclusions. Let us list what we have managed to conclude from each chapter.

Chapter 1

In this chapter we did not so much as draw conclusions as we did set up the main vehicle for our argument. We used Langton and West's account of scorekeeping in a pornographic language game and asserted that it was not only possible but potentially of great interest to conflate their research outlook with that of video games. Thus, the question became what do video games say? At the very least, we were able to conclude that implicit speech is far more difficult to interrogate than explicit speech, enabling changes to the conversational score in a way which reflects the presuppositions which we tacitly generate. We then put forward our first major claim: that immersion is something which could change the scope of said presuppositions, effectively making implicit speech broader than it usually is.

Chapter 2

In this chapter we disentangled immersion from numerous trends within academic discourse, seeking to distance ourself from popular notions such as suspension of disbelief, the magic circle and flow state, instead focusing on an idea of presence. Theories of suspension, it was argued, did not seem to capture the lived experience of what it was like to play a video game. Far from requiring the suspension of a critical faculty, it seemed like games involved the activation of a creative faculty. As such, instead of considering a suspension of disbelief, we preferred to think of activation of belief.

The notion of the magic circle, it was argued, made some sense when applied to older, more traditional aspects of play that do not seem to have definite, codified boundaries, however where video games are concerned, the limitations of the software itself present hard boundaries for play which somewhat enervates the explanatory power that the magic circle is supposed to provide.

Flow theory, whilst interesting in its own right, was dismissed as a candidate for understanding immersion on the grounds that many user reports of immersion relate to walking simulator game such as *Dear Esther*, the latter of which does not satisfy the listed preconditions which need to be met in order for flow state to obtain. As such, though valuable in its own right, flow theory is better considered as a separate area of concern.

Ultimately, we looked at Slater's theory of immersion/immersiveness, one which positions it alongside the notion of presence, a sense of being there at that perspective within the gameworld. This notion of immersion/immersiveness redefined it as an objective property of a system, often technological, to which presence is a subjective corollary tied to it in a relation of meronomy. Thus, when speaking of immersion or immersive video games, we

clarified that we were referring henceforth to a kind of dynamic relationship between immersion, immersiveness and presence.

Chapter 3

In this chapter we looked at a particular subspecies of presence known as tele-presence which we selected based on its applicability to technological apparatus. Following Dolezal's examination of telesurgery and its similarity to many video game interfaces, we traced the phenomenological history of embodied subjectivity as discussed throughout the works of Husserl and Merleau-Ponty. A notion of the lived body, built upon transparency, schema and proprioceptive information, became crucial to understanding one's relation to said technologies and how one might become telepresent in an enriched sense. By drawing careful comparisons, some borne out by thought experiment, we learned that the aforementioned phenomenological toolkit could be applied to video games, concluding that it was sensible to assert that the acting self could embody virtual objects such as an avatar.

Chapters 4 and 5

In both of these chapters we pursued the same goal, namely for the sake of diligence we sought to understand whether treating video games as virtual or fictional worlds, and learning the finer ontology of such, presented challenge to our own argument. Though a broad range of perspectives on virtuality and fictionality were reviewed, we ultimately did not surrender our initial intuition that a phenomenological account of immersion and how it dovetails with implicit speech/presupposition had no need for ontology. The body is always postured to its tasks, sensitive to its environment without reference to the ultimate reality of said environment and therefore no account of virtuality or fiction was strictly necessary. We

did however draw some interesting insights from the work of David Chalmers and Peter Ludlow, the latter of whom perhaps represents an alternate direction for this kind of research.

Chapter 6

In our final chapter we outlined the different modes that video games adopt, seeking to limit our focus to the avatarial (primarily) and the first-personal (secondarily). We looked at how the avatar comes to enter into a kind of prosthesis with the body, becoming the seat of the acting self and unlocking a new field of affordances. We then looked at how this new set of action-possibilities unique to the gameworld, and perceptible only from a position of genuine authentic embodied presence, came to represent an explanation for new kinds of presuppositions which alternatively would not be supposed. With reference to the notion of cognitive orientation, we saw how presuppositions could influence the former, thus impacting that which affords. Furthermore, we noticed a feedback loop of vicious cycle where the reverse was true, allowing that which affords to generate new presuppositions which affects orientation which affects presuppositions which affects affordances and so on ad infinitum. Thus, when it comes to the prospect of determining what exactly has influenced a player, we have a sort of chicken and egg problem.

We finished by saying that conversational score, as something which is sensitive to presupposition, is by transitive property, by way of association, also sensitive to and indeed latent in, a gameworld's novel affordances—the latter of which become rarefied by immersion: the gateway to understanding new corners of embodied subjectivity both from a player perspective and from a development perspective.

What remains, I suppose, is for someone with greater empirical funding than I to observe, by scientific means, the finer mechanisms of proprioception and its links to agency

and ownership of action. Furthermore, work in video game theory and VR can focus more wholeheartedly on building immersive technology, experimenting with the limits of the corporeal schema and the human capacity for projecting the acting self ever outward, ever towards a world which beckons it.

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