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How are Games Interpreted? Hermeneutics for Game Studies

by Jonne Arjoranta

Abstract

This paper presents a hermeneutic theory for game studies. It starts by giving an overview of hermeneutics, shows how in understanding games it is useful to divide hermeneutics into two aspects -- real-time hermeneutics and game hermeneutics -- and finishes by detailing complementary approaches to hermeneutics for games. The article builds upon earlier work in the hermeneutics of games and draws from philosophical hermeneutics.

Keywords: Hermeneutics, game hermeneutics, real-time hermeneutics, ludo-hermeneutics, philosophical hermeneutics

Introduction

How are games interpreted? This broad question is challenging to answer, but if there is one answer it probably draws upon *hermeneutics*, a theory of interpretation going back thousands of years. Hermeneutics have previously benefited other areas requiring interpretation, like law, history and literature, so using it to understand games should also be possible. This is important, because having a clear idea of how games could and should be interpreted helps scholars working on other topics concerning games, critics wishing to evaluate games as cultural objects and anyone wishing to argue that games are a form of culture worth taking seriously.

There are many types of games, from traditional analog ones to those taking place in virtual realities. The content of this article largely applies to most forms. The focus avoids any specific form, but is on the processes that happen when humans interpret games. That is, understanding humans is a pre-requisite to understanding games.

However, this overview intentionally leaves out some aspects of games, like the role of social interaction. This choice is made in part because while there is good anthropological and sociological research on traditional, social games (e.g., Geertz, 1972; Sutton-Smith, 1959), the study of the cultural practice of single-player digital gaming is much more nascent. The second reason for this framing is because -- for good or ill -- these are the games that have been the focus of what is usually recognized as game studies [1]. Nevertheless, the real focus of this article is on the processes of interpretation humans use when understanding games and these are relatively similar in most cases.

While the focus of this article is on individual players encountering single-player digital games, there is still a lot of room for variation. Games come in many shapes and forms, genres and platforms. This article does not try to detail all the differences these imply, but focuses on the broader overall question of human interpretation when they encounter playful artefacts. This leaves a need for developing detailed approaches, some of which are mentioned at the end of the article.

First, I will start by providing a short overview of hermeneutics in general before diving deeper into the parts of hermeneutics relevant to understanding games. Second, I will show how philosophical thinking has previously been applied to games. Finally, I conclude by

providing an overview of what current hermeneutic theories of games look like, and what questions future scholars could work on to further our understanding of game interpretation.

There are methodologies for conducting hermeneutic interpretations of games, for example by using close reading (e.g., Bizzocchi and Tanenbaum, 2011; Tanenbaum, 2015). This article focusses less on methodologies of practical work of interpreting games, and more on the theoretical underpinnings of this practice.

A History of Hermeneutics

Before moving onto hermeneutics for games, it is worth saying a few words about hermeneutics in general: their background, purpose and history. This overview leaves a lot unsaid, since hermeneutics have a long and rich history. The goal is to give sufficient detail to make the hermeneutic approach used here understandable (see Schmidt, 2006 for an overview). There are other approaches to hermeneutics and schools of hermeneutic thought, like Marxist hermeneutics (e.g., Bloch, Benjamin, Jameson), analytic hermeneutics (e.g., von Wright, Winch), objective hermeneutics (Popper), and others, that are here left unexamined. These are interesting and useful in their own way, but because they are less relevant to interpreting games this article will focus elsewhere.

Perhaps the first work of hermeneutics in the Western philosophical tradition is Aristotle's *De Interpretatione* (Aristotle, 2015, from fourth century BC). However, perhaps even more influential than the tradition of Western philosophy is the tradition of textual analysis in Abrahamic religions (Gadamer, 2006). The correct understanding of holy books is central to these religions, so they have contributed significantly to hermeneutics, although this is often called "exegesis" in these contexts. For example, many biblical scholars have affected the interpretation of texts in general (Jeanrod, 1991). However, the problem of correctly understanding texts goes beyond reading holy texts, being relevant for example to law (Gadamer, 2006, p. 30).

Later scholars took the insights from exegesis and developed theories for understanding texts in general. One such scholar was Friedrich Schleiermacher (1768-1834), who tried to develop a hermeneutic for understanding linguistic expressions in general (Schmidt, 2006). One key concept that Schleiermacher took from biblical hermeneutics and applied more generally is the *hermeneutic circle*. This concept typically refers to two processes:

1. Interpreting a text requires moving between understanding specific sections in light of the whole and vice versa;

2. The process of interpretation starts from our preconceptions of what is true on a topic and moves forward by comparing them to what a text says on the topic. The textual message shapes our preconceptions, which we then use again to understand what the text says.

Both of these processes are seen as circular, moving between the general/preconceived and specific/actual. The circle is not vicious in the sense that it would not lead anywhere, and each round on the circle improves our understanding of the topic (Gadamer, 2004, p. 269) [2].

Philosophical Hermeneutics

Schleiermacher broke with earlier thinking when he adapted theories of biblical interpretation to secular texts and developed a general theory of language. His follower Wilhelm Dilthey went further and sought to make hermeneutics into a general method for humanities (Schmidt, 2006). This happened during a time when approaches to humanities were being systematized, often by following the example of natural sciences. Dilthey was skeptical how well this positivist approach suited humanities and sought to create a methodology more appropriate to them.

It is on this base of hermeneutics as a general method that philosophical hermeneutics is built upon. What Dilthey saw as a method for studying humanities, hermeneutic philosophers

generalized into understanding being in the world. According to this view, interpretation is necessary not just to understand humanity, but to be human. Gadamer writes that he did not try to explain "what we do or what we ought to do, but what happens to us over and above our wanting and doing" (2004, xxvi). Interpretation is inevitable, and we are left with the possibility of trying to understand that process.

Being-in-the-world

This idea of interpretation as a way of being in the world is expressed in the phenomenology of Martin Heidegger, whose *Being and Time* (1996) paints a detailed but complex picture of what being-in-the-world is like (Dreyfus, 1991) [3]. Martin Heidegger is usually the first to be considered as doing philosophical hermeneutics. As the goal of his main work *Being and Time* (Heidegger, 1996) was to rethink the basis for Western metaphysics, only part of his work is relevant to our interest in interpreting games.

For Heidegger, understanding is what happens when we are *thrown* into the world and must cope with it. This *thrownness* is Heidegger's way of expressing that the world already exists before we get there, and already matters to us in multiple ways before we try to understand it.

Usually, we have an uncomplicated relationship with the world, which we approach with specific goals. For example, when needing to hammer a nail, the hammer does not raise questions of its mode of existence, and instead appears to us *ready-to-hand*, phenomenologically transparent (Wheeler, 2020) [4]. We only have to consider the hammer if for some reason it fails to fulfil the task we are performing, for example, by falling apart while we are hammering away. When this happens, the object becomes *un-ready-to-hand*, no longer phenomenologically transparent and in need of closer examination [5].

Things can also appear *present-at-hand*, when they are being examined through philosophical contemplation or scientific examination: they become abstractions in need of explanation. Importantly, for Heidegger this disengaged contemplation is not a better way of understanding the world. For example, knowing the abstract physical qualities of a hammer does not mean that we know how to use a hammer -- "understanding a hammer at its most primordial means *knowing how* to hammer" (Dreyfus, 1991, p. 184). Analogically, from a Heideggerian perspective, understanding a game would mean knowing how to play it.

Furthermore, Heidegger sees the specific case of philosophical or scientific interpretation as deriving of the more fundamental way of interpretation as it happens in everyday existence (Dreyfus, 1991, p. 195). This means that interpreting games is a special case of the kind of interpretation we do in our everyday existence, not a special case of scientific or philosophical interpretation. Understanding games draws from our everyday phenomenological experiences of living in a world filled with tools, cultural objects and artefacts. It is when we move onto interpreting games in a cultural context that insights from hermeneutics become more useful.

Interpretation as a Way of Being

Philosophical hermeneutics was further developed by Heidegger's student, Hans-Georg Gadamer [6]. Gadamer was trying to understand what it means if interpretation is a way of being in the world, or what happens when interpretation "happens to us," as he framed it. Interpretation is a mode of existence, not something a subject does. He explored this most thoroughly in *Truth and Method* (2004), the result of a lifetime of work on hermeneutics.

Gadamer starts from the same premise as Heidegger: we are thrown into a world that precedes us and try to make sense of it in relation to our position in the world and with specific goals in mind. Unlike in Sartrean existentialism (see e.g., Reynolds and Renaudie, 2022), Gadamer thinks our options are rather limited by the surrounding

circumstances. We are born into specific historical conditions, which determine what kinds of positions we have access to.

Those historical circumstances provide us what Gadamer (2004, p. 273) calls "prejudices," but what can also be understood more neutrally through Heidegger's term of "fore-conception" (Gadamer, 2004, p. 269). Regardless of terminology, the crucial idea is that there is no neutral starting position where we could make interpretations: "we are always already affected by history" (Gadamer, 2004, p. 300). We are situated in historical circumstances that predetermine the "horizon" (Gadamer, 2004, p. 301) of interpretations available to us. Even more crucially, it is only against this horizon that interpretations are possible in the first place.

Understanding something only makes sense in specific historical circumstances and against a specific cultural background. A neutral starting position does not exist, and interpretation from such a position would be impossible, since the interpretation would not be in relation to anything. In this sense, interpretation is always also a process of self-understanding, since interpretations are checked against both the world and our preconceptions of that world. Sometimes we do not learn more about the world, but about ourselves, and notice that it is our prejudices that need updating.

The goal of philosophical hermeneutics is not to understand what the author meant with a text, but what it means when applied in a particular horizon. This means that what we consider subjective or arbitrary and good or bad interpretations needs to be evaluated against the background of the cultural and historical context they are made in. Gadamer also argues that "temporal distance" -- the passage of time -- helps in seeing things in a broader context, and thus, better (Gadamer, 2004, pp. 297-98).

The interpretation of historical events is a good example: before 1939 it made sense to talk about the Great War, as it referred to the biggest war known until then. After an even bigger war surpassed it, it made more sense to see it in light of events coming after and rename it the First World War. Ignoring the Second World War in understanding the First World War would be a significant oversight. This means that the task of understanding is never over, since there are always new historical situations that affect how previous history should be understood [7].

Gadamer follows Heidegger in thinking that interpretation is not an abstract process of cognition, but happens in specific circumstances with specific goals [8]. He calls this "the hermeneutic problem of application" (Gadamer, 2004, p. 305). Application means interpreting the meaning of an object in the concrete situation and in relation to the goal at hand. For example, the classic areas of hermeneutic practice have included philology and law. When a legal scholar and a philologist look at the same legal text, they probably have different goals in mind: one is trying to understand the law, one the language law is written in. What counts as successful interpretation differs between them because they are each applying hermeneutics for their own purposes. Similarly, evaluating game interpretations needs to take into account the purpose of interpretation.

Gadamer's philosophical hermeneutics is useful for understanding games, because *play* has a central place in his theory. When Gadamer writes about play, he means it in a broader sense than most work dealing with games [9]. Humans play games, but that is only a special case of play in general:

> It is obviously not correct to say that animals *too* play, nor is it correct to say that, metaphorically speaking, water and light play as *well*. Rather, on the contrary, we can say that *man* [sic] too plays. (Gadamer, 2004, p. 105, emphasis in original)

Humans playing games comprise a special case of human play. Other forms of human culture, like art, ritual and dance, are also played. They can all be discussed together, because they have a similar phenomenological structure. Players choose to participate in a certain play-form, which then defines their goals for the duration of play (Gadamer, 2004, p. 107). After choosing to participate, players stop

being the subjects of play, and instead "play reaches presentation through the players" (Gadamer, 2004, p. 103). "All playing is a being-played" (Gadamer, 2004, p. 106).

Players' participation allows what Gadamer (2004, p. 110) calls "transformation into structure." Players are necessary for the existence of play, but it also reaches a structural independence from them -- individual participants can stop, but play will continue as long as someone continues. Participants get to choose whether to participate, but while playing they have to give themselves over to the structure of play or risk the activity falling apart.

Play relates to how Gadamer explains the ontological structure of artworks, which have a central place in his hermeneutic ontology. Play is "the mode of being of the work of art itself" (Gadamer, 2004, p. 102). Works of art exist as physical objects, but require our participation to exist as art. This does not mean that statues stop physically existing when they are out-of-sight, but that their existence *as works of art* requires someone to see and appreciate them. They must be interpreted in some historical circumstances and those circumstances determine how art is viewed, appreciated and understood. For example, objects created originally for religious purposes are now often exhibited as objects of art.

Figure 1: Photograph of Marcel Duchamp's Fountain (1917) by Alfed Stieglitz. Click image to enlarge.

Marcel Duchamp's *Fountain* (1917) is a good example of the changing context of interpretation. *Fountain* was a "readymade," an ordinary manufactured object that Duchamp modified and presented as art. It is now considered one of the most important artworks of the 20th century, but when it was first presented to the New York Society of Independent Artists, they did not consider it art, and chose not to exhibit it. The work's historical circumstances prevented interpreting *Fountain* as art -- at least for the people making the choice about whether to exhibit Duchamp's piece.

Games exists in a manner similar to works of art. They exist independently of humans, like statues or readymade sculptures, but require people to engage with them as games to be games. Bone dice, game boards, CD-ROMs and digital downloads exist

independently of human meaning-making, but a culture where they are played makes them games.

Other Approaches to Philosophical Hermeneutics

This article focuses on the philosophical hermeneutics of Heidegger and Gadamer, because their particular approach to hermeneutics is most useful for understanding games. However, they are a fraction of thinkers relevant to philosophical hermeneutics. For example, Paul Ricoeur is one of the most influential philosophers of the 20th century, who also contributed to philosophical hermeneutics (Dauenhauer and Pellauer, 2014; Grondin, 2014). One notion especially relevant to understanding play is Ricoeur's (1981) idea of interpreting meaningful action as text. He shows how tools from hermeneutics can be used for understanding human activity, which is also useful for explaining play activity.

Other philosophers have also contributed to the development of philosophical hermeneutics indirectly or as opponents. For example, Jürgen Habermas had influential discussions with Gadamer that affected how both thought of hermeneutics, language and interpretation (Mendelson, 1979). Habermas presented a Marxist critique of how Gadamer's hermeneutics had problems dealing with issues outside language, like power and labor. Another influential philosopher was Jacques Derrida, who had much in common with Gadamer: both philosophers were interested in questions of interpretation, language and texts. However, in practice they disagreed on much, with Derrida accusing Gadamer of veering into metaphysics with his hermeneutics (Botz-Bornstein, 2013; Evink, 2021).

These approaches inform the rest of this article, but receive little analysis because they are less relevant to understanding game hermeneutics.

Philosophical Hermeneutics for Games

Hermeneutic Terminology

The terminology used to discuss hermeneutics in game studies is confusing. In addition to simply writing about "hermeneutics" (Kłosiński, 2021) or "hermeneutic inquiry" (Tanenbaum, 2015), there are at least four concepts used, with slightly different meanings:

1. Game hermeneutics (e.g., Möring, 2013; cf. Vella, 2015)
2. Textual hermeneutics (e.g., Möring, 2013; cf. Karhulahti, 2015)
3. Real-time hermeneutics (e.g., Aarseth, 2003; Majkowski, 2017)
4. Ludo-hermeneutics (e.g., Aarseth, 2014; cf. Martin, 2018)

These sometimes overlap, while sometimes different authors use the same concept for different phenomena.

To clarify the discussion, this article suggests a specific use for each of these terms. The claim is not that previous authors have used the terms in these ways; their actual use is much more complicated and messy. Instead, the goal is to clarify the differences between the terms and suggest a way of using them that could make discussion about the hermeneutics of games clearer. This usage builds upon the established use of the terms, but makes the distinctions between the terms explicit and intentional. The suggested use of the terms is the following:

Real-time Hermeneutics

Real-time hermeneutics are the phenomenological processes of interpretation that players engage in while playing a game. They are "real-time" in the sense that the player must continually form interpretations and check them against the game in order to keep playing. Real-time hermeneutics draw from philosophical hermeneutics and phenomenology.

Game Hermeneutics

Game hermeneutics are interpretations of games as cultural objects, which can happen outside play and are informed both by real-time hermeneutics and the cultural context of interpretation. Value judgements ("this is not a good game") and category evaluations ("this is not a real game") are part of game hermeneutics. Game hermeneutics draw from classical hermeneutics and contains textual hermeneutics.

Ludo-hermeneutics

Ludo-hermeneutics are hermeneutic theories of games, which is what this article is doing [10].

The theoretical background behind this terminology will be discussed later, but the terms themselves are defined here to make it easier to follow the argument presented.

Meaning in Games Before Ludo-hermeneutics

Before the mid-2000s, there were multiple attempts at making sense of meaning in games using literary studies and narratology (e.g., Buse, 1996; Eskelinen, 2001; Kücklich, 2002; Ziegfeld, 1989). One of the main strands of this research was cybertext theory, an approach from literary studies trying to explain ergodic literature: literature that requires non-trivial effort to traverse (Aarseth, 1997) [11]. The common aspect to these approaches was seeing computer games as a new development in literature, not as part of the millennia long history of games. The approach made sense especially in the time of text-based adventure games, since they were often similar to the experimental literature that was the other focus of this research.

Perhaps the first contributors to try to explicitly form a hermeneutic for games are Arsenault and Perron (2008), who talk about "the magic cycle," which includes the "hermeneutic spiral" among other parts of the cycle. They present a three-fold funnel of interconnected spirals (see Figure 2):

1. Heuristic spiral of gameplay
2. Heuristic spiral of narrative
3. Hermeneutic spiral

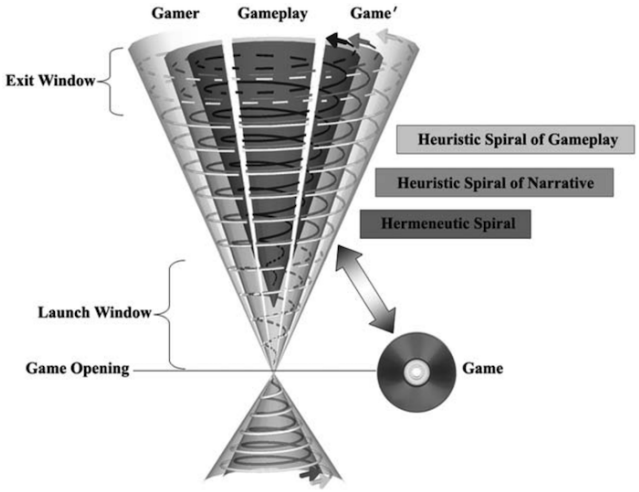

Figure 2: The magic cycle according to Arsenault and Perron (2008). Click image to enlarge.

They see the three spirals as connected, but discretionary: only the inclusion of gameplay is necessary, while both the narrative and hermeneutic spirals are optional (Arsenault and Perron, 2008, p. 117). Using *Super Mario Bros.* (Nintendo R&D4, 1985) as their example, they discuss how the player must engage with the heuristic spiral of gameplay, but explain how both the narrative and hermeneutic spirals are "small," meaning not important (Arsenault and Perron, 2008, p. 118).

Their conception of the hermeneutic process is informed by Gadamer, but only very loosely. Their conclusions are in opposition to how

Gadamer describes the interpretive process as something that happens to us. As elaborated below in relation to real-time hermeneutics, hermeneutic interpretation does not happen in addition to what Arsenault and Perron (2008) see as gameplay and narrative, it is what makes the two other things possible in the first place (cf. Aarseth and Möring, 2020). Their model places gameplay at the middle of the figure and sees interpretation as external to it, when in practice, interpretation is necessary for gameplay.

Another application of hermeneutics is Sicart's (2009) theory of ethics of computer games. He draws on Gadamerian hermeneutics when explaining the player's position as a moral subject, discussing the hermeneutic process as a process of self-understanding. Since he is not attempting to explain the hermeneutic process of playing, for him hermeneutics work as tools for explaining his theory of Aristotelian ethics.

Real-time Hermeneutics

The concept of real-time hermeneutics was introduced into game studies by Aarseth (2003). He writes:

> While the interpretation of a literary or filmatic [cinematic] work will require certain analytical skills, the game requires analysis practiced as performance, with direct feedback from the system. This is a dynamic, *real-time hermeneutics* that lacks a corresponding structure in film or literature.
>
> Reading a book or viewing a film does not provide direct feedback, in the sense that our performance is evaluated in real time. (Aarseth, 2003, p. 5, emphasis added)

Aarseth (2003) refers to Eskelinen (2001), who draws on literary studies, rather than making explicit the type of hermeneutic background he uses. The central idea of real-time hermeneutics is that games provide feedback on whether the player's interpretation is correct or not (cf. Buse, 1996) [12]. Arjoranta (2011) gives an example of real-time hermeneutics using *Super Mario Bros.* (Nintendo R&D4, 1985):

> The interpretations a player makes during the game influence his or her actions, and subsequently, success in the game. For example, if one interprets the Koopa Troopa-turtles in *Super Mario Bros.* (Nintendo Creative Department 1985) as friendly and tries to hug them, it will probably result in the plumber-protagonist Mario losing his life. In this case, we can say that it is the wrong interpretation to make. This does not mean that there is only one possible correct interpretation of the game itself, but that the game supports some and opposes some interpretations. (Arjoranta, 2011, p. 6)

This can be understood by using the Heideggerian terminology presented before. The game appears phenomenologically transparent while we are successfully playing it; it is ready-to-hand. When some event removes our possibility of continuing -- Mario dies -- it forces us to reflect, making the game un-ready-to-hand. It is only when we manage to make an interpretation that allows progress in the game, that it can return to being ready-to-hand.

Understanding how games oppose some interpretations is best theorised by Leino (2010) with the concept of *gameplay condition*. He also draws upon Gadamer's theory of play to make sense of gameplay, but combines it with a Sartrean perspective on freedom. Following Gadamer, he argues that by participating, the player subjects themself to the risk of failing in a game:

> Given that I desire to play, […] the materiality of the game artefact imposes on me a freedom of choice of which I am responsible in my choices. This is what we could refer to as the *gameplay condition*.
>
> An account of how the gameplay condition is implemented in a particular game would be […] a list of the principles according to which the non-human agency operates in a particular game as regulating what is it possible for the player to do, and also, more importantly, defining what the player needs to do in

> order to retain the possibility of choosing to [sic] anything in the game. (Leino, 2010, pp. 133-34)

The gameplay condition is what the player needs to do to "retain the possibility of choosing," meaning "to keep playing the game." In the previous example it means forming an interpretation where hugging Koopa Troopas is not advisable. It is possible for the new interpretation to still be at odds with the game, as long as it allows for successfully continuing: perhaps Koopa Troopas are friendly, but covered in poison, so you should avoid hugging them.

The gameplay condition is not identical to goals. While a game like *Tetris* (Pajitnov, 1984) can have a goal like "get a high score," its gameplay condition is the requirement that must be fulfilled to keep playing: the top row must be kept empty of tetrominoes. A player may adopt multiple goals in relation to a game (either by their own choice or by having the game offer them), but the game itself can enforce a gameplay condition that can prevent reaching any of those goals.

While a player has room for making various interpretations while playing, the gameplay condition sets the limits of possible interpretations. An interpretation where Koopa Troopas should be hugged is not compatible with continuing to play *Super Mario Bros.*, but that leaves many things up to interpretation. Koopa Troopas are descendants of Shellcreepers (called simply "turtles" in Japanese) from *Mario Bros.* (Nintendo R&D1, 1983), but an imaginative player could also see them as some other shelled creature -- for example, a hermit crab -- and the gameplay condition of *Super Mario Bros.* would not oppose that interpretation.

We can understand the gameplay condition as setting the minimum requirement for successfully doing real-time hermeneutics: if a player is unable to keep playing because of their interpretation, it is opposed by the game and necessarily wrong [13].

Game Hermeneutics

If real-time hermeneutics were the interpretive processes required to fulfill the gameplay condition, game hermeneutics are the processes of trying to understand games as cultural objects. Real-time hermeneutics describe phenomenological processes, while game hermeneutics are closer to the classic sense of hermeneutics as interpreting "texts."

Real-time hermeneutics inform game hermeneutics, but are not necessary to perform game hermeneutics. It is possible to understand a game in relation to the surrounding culture without playing it (e.g., by watching someone else play it) -- it is simply harder. Sometimes this is necessary: for example, it might be possible to study high-level esports by participating in the game oneself, but for many game scholars it is simply impossible to acquire the skills needed to compete on that level (see also Hock-koon, 2012). A personal phenomenological experience of a game is nevertheless informative (Aarseth, 2003; Karppi and Sotamaa, 2012).

Unlike real-time hermeneutics, this type of hermeneutic is not evaluated by the game. Developers or players may care what the cultural status of games is, but that is not evaluated by the game during play.

Game hermeneutics are evaluated by the communities surrounding a game. It is only against a shared cultural understanding of some specific temporal and cultural context that interpretations make sense. Asking whether *Pac-Man* (Namco, 1980) is art would have contrasting meanings if asked in 1980 or in 2012, after the New York's Museum of Modern Art included it in their permanent collection (Antonelli, 2012).

Game hermeneutics are informed by the prejudices of the interpreter. This word does not have the usual negative connotation in Gadamerian hermeneutics: it simply refers to the set of pre-existing conceptions we have of something. All interpretation happens in relation to these preconceptions (cf. Vella, Gualeni, and Arjoranta, 2019). The movement between our prejudices and new ideas coming

from an object of interpretation can be described as the hermeneutic circle (Heidegger, 1996; cf. Gadamer, 2004, pp. 268-69).

Successful interpretation is called a "fusion of horizons" (Gadamer, 2004, p. 305). A fusion of horizons means to successfully combine your prejudices with the cultural context of the object of interpretation, not allowing either to overshadow the other. For example, it is possible to start playing *Spec Ops: The Line* (Yager Development, 2012) thinking it is a typical, jingoistic military shooter. Holding onto this prejudice becomes harder as the game progresses, and retaining that interpretation after playing the game would require ignoring most of the interpretive cues suggesting otherwise (see e.g., Keogh, 2013).

Application means taking into account the goal of interpretation: whether an interpretation is right needs to be evaluated against the goals of the interpretation. There are many possible applications; the following is a non-comprehensive list of possible applications in interpreting games:

1. Evaluating a game in comparison to other games, e.g. "is this game better than the previous game in the series?" [14]
2. Making aesthetic judgements about games, e.g., "this game is beautiful."
3. Making category judgements, e.g., stating "this is not a game" or asking "is this game art?"
4. Evaluating whether a game is suitable for some context or use, e.g. "should children play this game?" or "does playing this game help understand some specific topic?"
5. Evaluating games in comparison to some other cultural category, e.g., "is this the *Citizen Kane* of games?" [15]

More than one application can be simultaneously present (e.g., asking whether a game is beautiful and whether it is art), but some of them may be difficult to combine.

Game hermeneutics lack final answers, since changing cultural contexts requires re-evaluating previous answers. For example, deciding whether games are art depends on what criteria are presently used to evaluate the latter. As the earlier example of Duchamp's *Fountain* shows, those criteria are constantly changing.

A Ludo-hermeneutic Theory

As stated earlier, this article is an example of ludo-hermeneutic theory, explaining what a hermeneutic theory for games looks like. It has presented what I see as the central ideas for ludo-hermeneutics. To summarize the conclusions briefly:

Interpretation is something that inevitably happens when we exist in the world, a *mode of existence* and not something we choose to do. It is based on *prejudices* coming from the surrounding culture and limited by the current *horizon*. The prototypical example of interpretation is when we encounter *works of art* and engage with them. We are participants in *play*, where the *structure* of the artwork determines what are valid moves.

Real-time hermeneutics explain the *phenomenological* processes players undertake to interpret a game they are playing. Players make these interpretations in relation to the *gameplay condition*, which sets the limits of interpretation, while still permitting a wide variety of possible interpretations.

Game hermeneutics explain the *hermeneutic* processes that concern understanding games as cultural objects. A successful interpretation happens when there is a *fusion of horizons* between the interpreter and the interpreted. Evaluating interpretations happens in relation to what the *application* of the interpretation is. There are no final interpretations in game hermeneutics, since the changing cultural context and purpose of interpretation determine what are valid interpretations.

Ludo-hermeneutics are theoretical overviews of these issues.

This overview includes insights from two sources: the tradition of philosophical hermeneutics and the work done in game studies. Much of the hermeneutics of games is shared with other objects of interpretation, meaning that many of the ideas relevant to understanding games are also relevant to other interpreted objects. What is specific to games is the two-fold structure of interpretation, where real-time interpretations are limited by the structure of the game, but also work as the foundation for game hermeneutics.

These two structures of interpretation are not separate. They are both based on the same interpretive abilities we use in everyday life, but are here used for a specific purpose. In practice these interpretive structures overlap, and while there is the possibility of temporal separation -- real-time hermeneutics happening first, game hermeneutics happening second -- in practice they often work simultaneously. Game hermeneutics also inform the real-time hermeneutic process, since interpreting something in a specific way highlights some prejudices for understanding the object of interpretation in a specific way.

Ludo-hermeneutics Complemented

This has been a high-level overview of issues relevant to hermeneutics for games. This article leaves out a lot of specific issues that either are or could be addressed. In some cases the issue is simply making sense of how different approaches relate to hermeneutic questions about games. This section highlights relevant and influential approaches that complement and inform what has been here discussed on ludo-hermeneutics.

For example, the phenomenology of games has previously been addressed at length and the challenge is making sense of the connections between real-time hermeneutics and previous phenomenological approaches (e.g., Crick, 2011; Keogh, 2015). Similarly, there is previous work on existential approaches to games and these can help make sense of issues related to subjectivity and how that relates to interpretation (e.g., Vella and Gualeni, 2019).

Some theoretical approaches deal with similar or adjacent questions than hermeneutics, while drawing from a variety of backgrounds. For example, Bogost's (2007) theory of procedural rhetoric explains the rhetorical means procedural systems like games can use to make claims. This has been further developed by Treanor et al. (2011) to cover what they call reading "graphical logics." Perhaps these approaches could be used to develop a "procedural hermeneutics," but that would only cover a small portion of ludo-hermeneutics, since games include more than procedural systems (cf. Sicart, 2011).

There is also extensive work in the narratology of games. The approaches are different and the questions formulated differently, but often this work touches upon similar issues as hermeneutics. For example, Chen (2014) combines a hermeneutic approach to Ricoeurian narratology, which is especially appropriate given Ricoeur's effect on hermeneutics. Further work drawing from Ricoeurian hermeneutics could extend our understanding of play as activity that can be interpreted, paving the way to *play hermeneutics*. This would be similar to real-time hermeneutics, but less interested in explaining how the interpretive process is maintained and more focused on analyzing player actions.

One area of interpretation that hermeneutics struggle with is making sense of abstractions -- yet there are games that consist of nothing much besides abstract shapes and their relations. There, drawing from the work by Begy (2013) and Treanor (2016) on abstract games would benefit ludo-hermeneutics, but there is still work to be done to bring these approaches together.

We may not yet have a complete theory of hermeneutics for games, but there certainly is a collection of ludo-hermeneutic theories. Surveying the previous work done in ludo-hermeneutics shows that interpreting games is in many ways similar to interpreting other forms of culture, but that there are also questions specific to understanding games. Answering these questions helps us better understand games

and can also contribute to a wider understanding of hermeneutics in general.

Endnotes

[1] There is an important exception to this: massively multiplayer online role-playing games (MMORPGs), and especially *World of Warcraft* (Blizzard Entertainment, 2004) have been overrepresented in the study of digital games (Coavoux, Boutet and Zabban 2017).

[2] The hermeneutic circle is sometimes expressed as a spiral, because it better visualizes the process of how interpretation develops from a general understanding into a more specific one. For this article's purposes they are synonymous.

[3] Heidegger supported the Nazi regime and never publicly repented, despite having a romantic relationship with the Jewish philosopher Hannah Arendt. It is possible to see his Nazi sympathies as irrevocably tainting Heidegger's philosophy; nevertheless, his effect on philosophy is undeniable (see e.g., Levinas, 1996).

[4] The reason the terms used by Heidegger seem awkward is that he developed numerous neologisms which are hard to understand in the original German and difficult to translate.

[5] As this example illustrates, the body has central place in the phenomenological experience. For more on how to take into account the body in phenomenological and hermeneutic work on games, see (Crick, 2011; Keogh, 2015; Kirkpatrick, 2011; Martin, 2018).

[6] Gadamer's relationship with the Nazi regime was more contested than his teacher's (Grondin, 2003). He remained in Germany and distanced himself from Heidegger. The Allied occupation forces evaluating him after the end of the Nazi regime did not consider him a Nazi sympathiser.

[7] Technically, one can make a distinction between unchanging *intrinsic* properties and changing *relational* properties, but Gadamer himself never makes a clear distinction between the two (Weberman, 2000).

[8] This is generally in line with the current understanding of how cognition works (e.g., Anderson, 2003).

[9] Gadamer understands play in the Romantic tradition of Schiller (1985) and Huizinga (1949), who both emphasize how play is fundamental to the birth of culture. Their idea is (very roughly) that play allows for imagining things "as if," making it possible to explore alternative and creative ideas about the world. For a fuller account of Gadamer's conception of play, see (Vilhauer, 2009; 2010).

[10] Additionally, there is the separate category of existential hermeneutics, which draws from the work of Sartre (e.g., Leino, 2012).

[11] The simplest example of this is hypertext literature, where the reader has to click links to choose what to read next. Aarseth (1997, p. 45) also presents a critique of Gadamerian hermeneutics in the context of cybertext theory.

[12] Other media can also have interactive tasks that are evaluated. For example, you could have a work of interactive theater where it was possible for the audience to fail in some tasks. It would make the play in question *game-like*.

[13] Of course, that is not the only reason why someone might fail in a game. For example, I might understand the hand movements necessary to succeed in a song in *Guitar Hero* (Harmonix, 2005), but still be unable to perform those hand movements. In addition to evaluating your interpretations, games can also evaluate your performance in challenges. In the case of *Guitar Hero*, the challenge is kinesthetic, relating to manual dexterity (Karhulahti, 2013).

[14] Karhulahti (2015, p. 12) states that establishing worth (in terms of money spent and time wasted) is the "ludocritic's" main goal. Doing this is framed as "hermeneutic play," but seems to concern only a small portion of what could be seen as a hermeneutic approach to play.

[15] It is a recurring trope in game journalism and criticism to proclaim some game the "*Citizen Kane* of videogames." It seems to stem from the misguided idea that games would be universally accepted as art if only there was one game capable of impressing even the most jaded critic. See: https://thecitizenkaneofvideogames.tumblr.com

References

Aarseth, E. (1997). *Cybertext: Perspectives on Ergodic Literature*. Johns Hopkins University Press.

Aarseth, E. (2003). *Playing Research: Methodological Approaches to Game Analysis* [Conference paper]. 5th International Digital Arts and Culture Conference, Melbourne. https://doi.org/10.7238/a.v0i7.763

Aarseth, E. (2014). Ludology. In Wolf, M. J. P. and Perron, B. (Eds.) *The Routledge Companion to Video Game Studies*, (pp. 211-15). Routledge.

Aarseth, E., and Möring, S. (2020). *The Game Itself? Towards a Hermeneutics of Computer Games*. FDG '20: The International Conference on the Foundations of Digital Games, Bugibba, Malta. https://doi.org/10.1145/3402942.3402978

Anderson, M. L. (2003). Embodied Cognition: A Field Guide. *Artificial Intelligence*, *149*(1), 91-130. https://doi.org/10.1016/S0004-3702(03)00054-7

Antonelli, P. (2012, November 29). Video Games: 14 in the Collection, for Starters. *Inside/Out*. https://www.moma.org/explore/inside_out/2012/11/29/video-games-14-in-the-collection-for-starters/

Aristotle. (2015). *On Interpretation* (E. M. Edghill, Trans.). The University of Adelaide.

Arjoranta, J. (2011). *Do We Need Real-Time Hermeneutics? Structures of Meaning in Games* [Conference paper]. The 2011 Digital Game Research Association International Conference: Think Design Play, Utrecht. http://www.digra.org/digital-library/publications/do-we-need-real-time-hermeneutics-structures-of-meaning-in-games/

Arsenault, D., and Perron, B. (2008). In the Frame of the Magic Cycle. In Perron, B. and Wolf, M. J. P. (Eds.), *The Video Game Theory Reader 2* (p. 109-133). Routledge.

Begy, J. (2013). Experiential Metaphors in Abstract Games. *Transactions of the Digital Games Research Association*, *1*(1). http://todigra.org/index.php/todigra/article/view/3

Bizzocchi, J., and Tanenbaum, J. (2011). Well Read: Applying Close Reading Techniques to Gameplay Experiences. In Davidson, D. (Ed.), *Well Played 3.0* (pp. 262-90). ETC Press.

Blizzard Entertainment. (2004). *World of Warcraft* [Microsoft Windows]. Digital game Digital game designed by Rob Pardo, Jeff Kaplan, and Tom Chilton, published by Blizzard Entertainment.

Bogost, I. (2007). *Persuasive Games: The Expressive Power of Videogames*. MIT Press.

Botz-Bornstein, T. (2013). Speech, Writing, and Play in Gadamer and Derrida. *Cosmos and History: The Journal of Natural and Social Philosophy*, *9*(1), 249-64. https://www.cosmosandhistory.org/index.php/journal/article/view/286

Buse, P. (1996). Nintendo and Telos: Will You Ever Reach the End? *Cultural Critique*, *34*, 163-84. http://www.jstor.org/stable/1354616

Chen, F. (2014). Toward a Hermeneutic Narratology of Interactive Digital Storytelling. In Mitchell, A., Fernández-Vara, C., Thue, D. (Eds.), *7th International Conference on Interactive Digital Storytelling, ICIDS 2014* (pp. 125-33). Springer. http://link.springer.com/chapter/10.1007/978-3-319-12337-0_12

Coavoux, S., Boutet M., and Zabban V. (2017). What We Know About Games: A Scientometric Approach to Game Studies in the 2000s. *Games and Culture*, *12*(6), 563-84. https://doi.org/10.1177/1555412016676661

Crick, T. P. (2011). The Game Body: Toward a Phenomenology of Contemporary Video Gaming. *Games and Culture*, *6*(3), 259-69. https://doi.org/10.1177/1555412010364980

Dauenhauer, B., and Pellauer, D. (2014). Paul Ricoeur. In *Stanford Encyclopedia of Philosophy*. Retrieved August 12, 2022 from http://plato.stanford.edu/archives/sum2014/entries/ricoeur/

Dreyfus, H. L. (1991). *Being-in-the-World : A Commentary on Heidegger's Being and Time, Division 1*. MIT Press.

Eskelinen, M. (2001). The Gaming Situation. *Game Studies: The international journal of computer game research*, *1*(1). http://www.gamestudies.org/0101/eskelinen/

Evink, E. (2021). Gadamer and Derrida. In George, T. and van der Heiden, G-J. (Eds.), *The Gadamerian Mind*. Routledge.

Gadamer, H.-G. (2004). *Truth and Method* (Weinsheimer, J. and Marshall, D. G., Trans., 2nd ed.). Continuum. (Original work published in 1960)

Gadamer, H.-G. 2006. Classical and Philosophical Hermeneutics. *Theory, Culture & Society*, *23*(1), 29-56. https://doi.org/10.1177/0263276406063228

Geertz, C. (1972). Deep Play: Notes on the Balines Cockfight. *Daedalus*, *101*(1): 1-37. http://www.jstor.org/stable/20024056

Grondin, J. (2003). *Hans-Georg Gadamer: A Biography*. Yale University Press.

Grondin, J. 2014. Do Gadamer and Ricoeur Have the Same Understanding of Hermeneutics? In Xie, M. (Ed.), *The Agon of Interpretations: Towards a Critical Intercultural Hermeneutics* (pp. 43-64). Toronto University Press.

Harmonix. (2005). *Guitar Hero* [Microsoft Xbox]. Digital game published by RedOctane.

Heidegger, M. (1996). *Being and Time* (Stambaugh, J., Trans.). State University of New York.

Hock-koon, S. (2012). *Affordances of Elliptical Learning in Arcade Video Games* [Conference paper]. Nordic Digital Games Research Association 2012 Conference: Local and Global Games in Culture and Society, Tampere, Finland.

Huizinga, J. (1949). *Homo Ludens: A Study of the Play-Element in Culture*. Routledge & Kegan Paul.

Jeanrod, W. (1991). *Theological Hermeneutics*. Crossroad.

Karhulahti, V.-M. (2013). A Kinesthetic Theory of Videogames: Time-Critical Challenge and Aporetic Rhematic. *Game Studies: The international journal of computer game research*, *13*(1). http://gamestudies.org/1301/articles/karhulahti_kinesthetic_theory_of_the_videogame

Karhulahti, V.-M. (2015). *Adventures of Ludom: A Videogame Geneontology* [PhD Dissertation]. University of Turku. http://urn.fi/URN:ISBN:978-951-29-6090-3

Karhulahti, V.-M. (2015). Hermeneutics and Ludocriticism. *Journal of Game Criticism*, *2*(1). http://gamescriticism.org/articles/karhulahti-2-1

Karppi, T., and Sotamaa, O. (2012). Rethinking Playing Research: DJ HERO and Methodological Observations in the Mix. *Simulation & Gaming*, *43*(3), 413-29. https://doi.org/10.1177/1046878111434263

Keogh, B. (2013). *Killing Is Harmless: A Critical Reading of Spec Ops: The Line*. Stolen Projects. https://brkeogh.itch.io/killing-is-harmless

Keogh, B. (2015). *A Play of Bodies: A Phenomenology of Videogame Experience* [Doctoral Dissertation, RMIT University]. RMIT University Research Repository. https://researchbank.rmit.edu.au/view/rmit:161442

Kirkpatrick, G. (2011). *Aesthetic Theory and the Video Game*. Manchester University Press.

Kłosiński, M. (2021). The Object Gives Rise to Thought: Hermeneutics of Objects in Disco Elysium. *Baltic Screen Media Review*, *9*(1), 56-66. https://doi.org/10.2478/bsmr-2021-0006

Kücklich, J. (2002). The Study of Computer Games as a Second-Order Cybernetic System. In Mäyrä, F. (Ed.), *Proceedings of Computer Games and Digital Cultures Conference* (pp. 101-11). Tampere University Press.

Leino, O. T. (2010). *Emotions In Play: On the Constitution of Emotion in Solitary Computer Game Play* [Unpublished doctoral dissertation]. IT University of Copenhagen.

Leino, O. T. (2012). Death Loop as a Feature. *Game Studies: The international journal of computer game research*, *12*(2). http://gamestudies.org/1202/articles/death_loop_as_a_feature

Levinas, E. (1996). Martin Heidegger and Ontology. *Diacritics*, *26*(1), 11-32.

Majkowski, T. (2017). Feeling Good about Myself: Real-Time Hermeneutics and Its Consequences. *TransMissions*, *2*(2). https://ruj.uj.edu.pl/xmlui/handle/item/56633

Martin, P. (2018). Carnal Hermeneutics and the Digital Game. *Journal of the Philosophy of Games*, *1*(1). https://doi.org/10.5617/jpg.2934

Mendelson, J. (1979). The Habermas-Gadamer Debate. *New German Critique*, *18*, 44-73. http://www.jstor.org/stable/487850

Möring, S. (2013). *Games and Metaphor - A Critical Analysis of the Metaphor Discourse in Game Studies* [Doctoral Thesis, IT University of Copenhagen]. Pure. https://pure.itu.dk/portal/files/76532870/20140624_SM_thesis_proofread_b.pdf

Namco. (1980). *Pac-Man* [Arcade]. Digital game designed by Toru Iwatani, published by Namco.

Nintendo R&D1. (1983). *Mario Bros.* [Arcade]. Digital game designed by Shigeru Miyamoto, published by Nintendo.

Nintendo R&D4. (1985). *Super Mario Bros.* [Nintendo Entertainment System]. Digital game designed by Shigeru Miyamoto, published by Nintendo.

Pajitnov, A. (1984). *Tetris*. [Electronika 60]. Digital game designed and published by Alexey Pajitnov.

Reynolds, J., and Renaudie, P.-J. (2022). Jean-Paul Sartre. In Zalta, E. N. (Ed.) *The Stanford Encyclopedia of Philosophy*. Retrieved August 12, 2022 from https://plato.stanford.edu/archives/sum2022/entries/sartre/

Ricoeur, P. (1981). *Hermeneutics and the Human Sciences: Essays on Language, Action and Interpretation* (Thompson, J. B., Trans.). Cambridge University Press.

Schiller, F. (1985). *On the Aesthetic Education of Man: In a Series of Letters* (Wilkinson, E. M. and Willoughby, L. A., Eds.). Clarendon Press.

Schmidt, L. K. (2006). *Understanding Hermeneutics (Understanding Movements in Modern Thought)*. Acumen.

Sicart, M. (2009). *The Ethics of Computer Games*. MIT Press.

Sicart, M. (2011). Against Procedurality. *Game Studies: The international journal of computer game research*, *11*(3). http://gamestudies.org/1103/articles/sicart_ap

Sutton-Smith, B. (1959). A Formal Analysis of Game Meaning. *Western Folklore*, *18*(1), 13-24. http://www.jstor.org/stable/1496888

Tanenbaum, T. J. (2015). Hermeneutic Inquiry for Digital Games Research. *The Computer Games Journal*, *4*(1-2), 59-80. https://doi.org/10.1007/s40869-015-0005-9

Treanor, M. (2016). *Finding Meaning in Abstract Games: A Deep Reading of Sage Solitaire* [Conference paper]. 1st International Joint Conference of the Digital Games Research Association and Foundations of Digital Games, Dundee, Scotland.

Treanor, M, Schweizer, B., Bogost, I., and Mateas, M. (2011). Proceduralist Readings: How to Find Meaning in Games with Graphical Logics. In Cavazza, M., Isbister, K., Rich, C. (Eds.), *Proceedings of the 6th International Conference on Foundations of Digital Games (FDG '11)* (pp. 115-22). ACM Press. https://doi.org/10.1145/2159365.2159381

Vella, D. (2015). No Mastery Without Mystery: Dark Souls and the Ludic Sublime. *Game Studies: The international journal of computer game research*, *15*(1). http://gamestudies.org/1501/articles/vella

Vella, D, and Gualeni, S. (2019). Virtual Subjectivity: Existence and Projectuality in Virtual Worlds. *Techné: Research in Philosophy and Technology*, *23*(2), 115-36. https://doi.org/10.5840/techne201951499

Vella, D, Gualeni, S., and Arjoranta, J. (2019). Processes of Roling: Mechanisms for Adopting Subjectivities in the Gameworld [Conference presentation]. 2019 Digital Game Research Association Conference: Play and the Emerging Ludo-Mix, Kyoto, Japan. http://www.digra.org/digital-library/publications/processes-of-roling-mechanisms-for-adopting-subjectivities-in-the-gameworld/

Vilhauer, M. (2009). Beyond the "Fusion of Horizons": Gadamer's Notion of Understanding as "Play". *Philosophy Today*, *53*(4), 359-64.

Vilhauer, M. (2010). *Gadamer's Ethics of Play: Hermeneutics and the Other*. Lexington Books.

Weberman, D. (2000). A New Defense of Gadamer's Hermeneutics. *Philosophy and Phenomenological Research*, *60*,(1), 45-65. http://www.jstor.org/stable/2653427

Wheeler, M. (2020). Martin Heidegger. In Zalta, E. N. (Ed.), *The Stanford Encyclopedia of Philosophy*. Retrieved August 12, 2022 from https://plato.stanford.edu/archives/fall2020/entries/heidegger/

Yager Development. (2012). *Spec Ops: The Line* [Windows PC]. Digital game directed by Cory Davis and Francois Coulon, published by 2K Games.

Ziegfeld, R. (1989). Interactive Fiction: A New Literary Genre? *New Literary History*, *20*(2), 341-72. https://doi.org/10.2307/469105