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The pragmatics of empathy in gaming

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ABSTRACT

The notion of empathy has proved difficult to pin down, despite the long line of relevant research conducted, particularly in psychology. The current work sets out to address this challenge by outlining a detailed and coherent account of the notion from the perspective of relevance-theoretic pragmatics. Given that not all situations lend themselves to demonstrations of empathy, the paper carries out the current exploration in relation to gaming, which offers a role-play experience. The gameplayer assumes a role that allows them to adopt the perspective of a character who encounters a problem in the storyline. On this suggestion, the gameplayer collects contextual information which is utilized in syllogistic processing resulting in an idea that is relevant to the goal of solving the problem.

KEYWORDS

Empathy; Relevance Theory; Gaming; Problem Solving; Syllogism; Inferencing

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1. Introduction

One of the most recalcitrant issues in psychological research is the notion of empathy, considering that it has eluded an accurate account to date (Cuff, Brown, Taylor & Howat, 2016). This is not an inconsequential matter, since the ability to demonstrate empathy is a distinctive trait of human nature. In this sense, pinning down empathy is required for gaining insight into an important species-specific trait, so that we can foster a deeper understanding among others, including children. In this respect, the current exploration aims to make a contribution to the definition of empathy.

Not all circumstances favor empathic experience. Hence, the current account of empathy will be put together by appeal to the sort of circumstances that favor it, i.e., playing videogames. Videogames seem to provide a suitable medium for encouraging the empathy of gameplayers (henceforth GP), given that, via the gaming experience, GP avail themselves of the opportunity to play the role of another (probably leading) character. To employ two basic psychology terms, GP are taken to develop two distinct but interconnected components of empathy, i.e., 'cognitive empathy' and 'affective' empathy.

Instrumental to the current discussion is the notion of problem solving, to the extent that empathy is standardly activated in the face of a problem (that a game character experiences). The type of empathy that seems pertinent to the discussion of problem solving is cognitive, rather than affective, empathy, insofar as GP employ syllogistic reasoning in the interest of reaching a conclusion, or a decision, as to how to solve the character's problem. This kind of reasoning process, then, involves the formation of premises leading to a conclusion.

Considering the specialization of linguistic pragmatics in the workings of the syllogistic device, it is rather odd that arguments on empathy have been single-mindedly pursued from a psychological perspective, thus remaining uninformed by pragmatic studies. In this regard, the current work seeks to make up for this partiality, drawing on relevance-theoretic pragmatics (Sperber & Wilson, 1995).

In relevance-theoretic terms, we posit that GP develop cognitive empathy syllogistically, in other words by means of a type of logic that is governed by considerations of relevance. More precisely, in view of a problem facing a character, GP show empathy for this character by trying to gain access to contextual information regarding the problem. In this connection, GP use this information to derive a conclusion that is relevant enough to the solution to the problem.

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Section 2 aims to familiarize the reader with the link between videogames and the notion of empathy. Section 3 is intended to present the progress accomplished so far in psychological research with respect to defining the notion of empathy. Section 4 draws attention to an important distinction in empathic experience, i.e., cognitive vs. affective empathy, and focuses on the former notion. Section 5 introduces aspects of empathy that have basically remained unaddressed in the relevant literature, despite their indubitable connection with the empathic experience. These aspects of the situational context in which GP empathy can be triggered include identifying with the leading character's role; acknowledging a problem that the character suffers from; deciding to treat this problem as if its consequences concerned GP themselves; and looking for a viable solution. Section 6 applies key relevance-theoretic notions to the description of cognitive empathy, as well as to the syllogistic apparatus required for solving a problem (albeit on someone else's behalf). Finally, section 7 applies these key notions to instantiations of empathy-development in a selection of games.

2. Preliminary remarks

Detroit: Become Human is a modern adventure game, in which GP choices matter, to the extent that their decisions catalytically impact the flow of the story. The narrative context includes human-like androids (robots), which were originally designed as employees at the service of the human employer. However, these androids have evolved into intelligent entities affording their own sentience and volition. The plot follows the trail of three human-like androids (robots): Kara, a housekeeper, who escapes with her employer's daughter, after he attacks them, in search of protection for the young girl; Connor, a police investigator android, whose assigned role is to hunt down 'deviant' (sentient) androids (in other words his own kind); and Markus, a caretaker, who devotes himself to releasing other androids from servitude. The game allows GP to make decisions about the future of both humankind and androids.

To single out one of these stories, Kara observes her employer's abusive behavior towards his daughter, Alice. She develops an understanding of the girl's predicament, as well as feelings of protectiveness for her. In other words, she develops the ability to empathize, hence her decision to act, i.e., escape with Alice (Figure 1). The two characters head for Canada, in search of safety.

Figure 1



In this third-person perspective game, GP assume the role of Kara, and are therefore required to identify with her in making choices that will shape the course of the narrative. In this sense, it is ultimately GP who develop empathy for Alice's situation, in their role as Kara. We are, then, faced with an interesting experience; a gaming experience that supports the development of empathy, i.e., the ability to share one's thoughts and feelings.

The questions that arise at this point are the following. What is the value of empathy? Should we appreciate a gaming experience that encourages the development of this ability? In order to answer these questions, we first need to address another basic issue: what exactly is empathy? Let us discuss the particular notion below.

3. The notion of empathy

Empathy is intuitively understood as the ability to adopt another person's perspective, or to share someone else's thoughts and feelings. Attempts to define the concept with further accuracy are evidenced in lexicographic work. Thus, empathy is "[t]he ability to understand other people's feelings or problems, especially because you have had similar experiences" (Longman Dictionary of Contemporary English, 2003); "[t]he ability to share another person's feelings and emotions as if they were your own" (Collins Cobuild English Language Dictionary, 1991); "[t]he ability to share someone else's feelings or experiences by imagining what it would be like to be in their situation" (Cambridge International Dictionary of English, 1995).

As a first approximation, these definitions are immediately graspable and fairly useful. For instance, they suggest the foci of empathy, i.e., problems, feelings or experiences, as well as the circumstances that favor the demonstration of empathy. At the same

time, however, they call for further explication, as they contain an amount of abstract meaning. For instance, what exactly is involved in 'understanding' someone's feelings or problems? Also, what is meant by 'imagining' someone else's situation?

Studies in psychology have endeavored to address these questions in a fairly recent line of research on empathy. These studies primarily focus on defining and analyzing the notion at hand. Unsurprisingly, the relevant literature is replete with proposed definitions, some more convergent than others. This variation in opinion, as to what counts as empathy, has led to a confused picture of the notion. As Cuff, Brown, Taylor & Howat (2016) put it, "Despite [its] extensive history, empathy is not a well-defined notion. Instead, there are perhaps as many definitions as there are authors in the field".

One of the most contentious aspects of the relevant research concerns the nature of empathy or, more precisely, the extent to which it is of a cognitive or an affective nature (Cuff, Brown, Taylor and Howat, 2016). While the etymology of the word, i.e., 'in' and 'pathos', points in the direction of the latter, it is conceivable that empathy involves the former, in the sense that it involves the ability to represent someone else's feelings, rather than sharing their feelings. This type of conceptual dichotomy is corroborated by the fact that psychopathic people demonstrate low levels of affective empathy, but high levels of cognitive empathy.

For example, according to Blair (2005), the term 'empathy' makes reference to the (mind-reading) ability to 'understand' an individual's feelings. By the same token, along the lines of Decety & Michalska (2010: 886), the concept implicates 'appreciating' emotions and, in Hogan's terms (1969: 308), it involves constructing a mental state. Also, Van der Weele (2011, 586) correlates practicing empathy with gathering information, while Wispe (1986, 31) identifies it with an attempt to 'comprehend' the positive and negative experiences of another individual.

On the other side (of affective empathy), Albiero et al. (2009, 393) explain the notion of empathy as the tendency to experience another person's emotional states. Decety & Lamm (2006; 1146) define it as a sense of similarity between the feelings one experiences and another person's feelings. For Goldman (1993. 351), empathy involves mimicking someone's affective state, while for Hoffman (2000, 4), it involves an affective response that is appropriate to another person's situation. Also, empathy is caused by sharing the emotions of another person (Hein & Singer 2008: 154).

More plausibly, it has also been argued that the two mental processes interact and thus represent components of empathy that can, but need not, be separated (Heberlein & Saxe, 2005; Cuff, Brown, Taylor & Howat, 2016). Strayer (1987) seems to describe this view succinctly, noting that the affective component represents the content of empathy, while the cognitive component is the process via which this content is formed. In the current work, we adopt Strayer's view of empathy. More specifically, we view cognitive empathy and affective empathy as conceptually distinct processes that make a joint contribution, under the single lexical label, to the end of experiencing empathy. According to this position, the two types of process are regarded as constituting two separate ontologies that may, however, cooperate for a common cause. More specifically, affective empathy is conditional on the development of cognitive empathy.

The distinction between cognitive and affective empathy can be sustained on pragmatic grounds, along Bardzokas's (2024) lines. That is, propositional content is not inherently linked with affective effects or mental image effects. Rather, these effects seem to contribute to the development of affective empathy. In this picture, cognitive empathy is the type of empathy that can be best understood in terms of propositional content.

Other parameters mentioned in definitions of empathy raise unresolved issues. The first concerns the distinction between 'the self' (in other words the empathizer[1]) and 'the other' (the person one empathizes with); to what extent does this distinction collapse in the interest of reaching a state of empathy for the other? A second parameter concerns 'direct perception'; to what extent is direct perception a requirement for developing empathy? In this respect, can empathy be achieved without immediate contact with 'the other'? These issues will be addressed in a single, unified pragmatic account of empathy.

In what follows, the use of the term 'empathy' will basically address the cognitive component of empathy (unless 'affective empathy' is explicitly referred to).

4. Features of cognitive empathy

The term 'cognitive empathy', to reiterate, describes the ability to 'understand' or 'appreciate' or 'comprehend' an individual's emotions. These qualifications collectively testify to the suggestion that experiencing cognitive empathy involves what can be described as the empathizer's interpretation of another individual's emotive responses; and this interpretation essentially involves imputing a level of representation to the (stimulus of the) emotive experience. From the perspective of the theory of mind, empathizing, say, with another individual displaying sadness would suggest observing this individual and forming a representation, i.e., appreciating or interpreting the other individual's state of sadness.

Apart from the construction of a higher-order representation, what other factors are involved in the development of cognitive empathy? Unfortunately, the majority of definitions provided simply observe an interaction between 'the empathizer' and 'the other', and the type of distance between the two individuals. As a result, they are largely inattentive to further considerations,

[1] In this paper, the terms 'empathizer', 'the self' and 'GP' (gameplayer) are coreferential.

which, however, seem to fulfil a vital role in determining the nature of empathy. These considerations can be addressed vis-à-vis Detroit: Become Human.

The narrative in Detroit: Become Human raises a question: what is it that sparked off Kara's (or GP's) empathy for Alice? Addressing this question involves identifying the circumstances that encouraged Kara to exercise empathy. To elaborate, Kara spends time at home with Alice and her father. In her role as a housekeeper, and in the absence of a mother figure, she is constantly present, witnessing and experiencing all situations, including acts of violence against the girl. Ultimately, she becomes integrated into the environment that triggers empathy, from the viewpoint of a mother. This viewpoint allows her to identify with the girl, at least in some contexts; the ones that involve physical or emotional violence. In answer to the previous question, then (what factors earmark cognitive empathy, apart from the construction of a higher-order representation?), it appears that knowledge of the situational or surrounding context seems to account for the circumstances under which (Kara's) empathy develops.

These are non-trivial observations, since they seem to lead to the basic features of empathy-development: a) the representation of an emotion; b) the representation of the contextual circumstances under which 'the other' reaches an emotive state; part of the contextual circumstances framed in (b) involves representing (c) the extent of the distance between the empathizer and 'the other'.

To explain parameter (c) further, GP play a role that allows them to develop cognitive empathy for a game character ('the other') by identifying with the empathizing character and formulating identical representations (of the context). More generally, the perspectives of the cognitive empathizer and 'the other' merge or overlap. In this sense, GP develop the ability to identify and represent an event as a source of emotive experience for the game character, e.g. sadness, or fear.

5. The relevance of situational context to discussions of empathy

One of the ways to appreciate the relation of context to the development of cognitive empathy is to introduce to the discussion an important contextual correlate: the role in which one can demonstrate empathy (Bardzokas 2023).

To begin with, let us imagine a situation where Kara simply happens to visit Alice and witness a single act of violence. Will she develop cognitive empathy for Alice? Probably not, at least not to the extent of cognitive empathy that she would develop as a housekeeper (thus witnessing everyday situations). As suggested above (section 4), developing cognitive empathy is concomitant with adopting 'the other's' perspective on a situation. Adopting this kind of perspective depends on knowing the context that surrounds Alice, namely that she is not an occasional but a constant victim of violence. Sharing enough background information about Alice's 24-hour experience is what underlies the ability to share details about 'the other's' situation; details that allow full access to their point of view. It is in this sense that the empathizer succeeds in identifying with 'the other', decreasing the distance between the two perspectives. As it turns out then, the parameter 'self-other distinction' can be studied more efficiently and economically as a contextual parameter, rather than as a parameter in abstraction from contextual considerations.

What about Alice's father? Can he develop empathy for Alice? Probably not, since the state of intoxication he is in blocks this experience. Thus, Alice's situational context obviously eludes her father's awareness. This is a clear illustration of the possible distance between two people's awareness.

Now suppose that a stranger passes by and hears Alice's abuse, rather than perceiving it directly. Would they succeed in constructing the type of background information required for the formation of an empathic perspective? The answer here depends not only on the amount of information that they can collect but also on the amount of information they have available regarding Alice's situation. For example, a passer-by who does not know Alice can neither retrieve nor collect information that can generate a perspective of empathy. On the other hand, a passer-by who knows Alice and is exposed to a violent act, even if remotely, possesses enough information about Alice's situation to be able to interpret some distant sounds as an instance of abuse. This type of experience may provide an opportunity for developing empathy.

In another situational scenario, Kara is the housekeeper and therefore possesses substantial information to be able to experience concern about the girl. Imagine that she goes out to put away the rubbish and, in the process, hears the familiar sounds of an abusive incident. This scenario maximizes the chances of immediately recognizing (the repetition) of an abusive incident, as well as the type of context that supports empathy.

Moreover, on the occasion described above (section 3), where Kara is the housekeeper and also an eyewitness to the abuse, visual access to the incident might enrich exposure and the information collected, which suggests the possibility of a richer empathic experience. However, visual access, in itself, does not seem to warrant a richer empathic experience; to reiterate, a visitor who happens to witness the abusive behavior is not plausibly expected to develop more empathy than Kara, the housekeeper, who has gone out to put away rubbish but is more knowledgeable than the visitor about Alice's plight.

All these examples boil down to the conclusion that empathy is a graded rather than a binary notion; one can feel more or less empathy for the other. The larger the amount of shared context about the other, the greater the chances of achieving an empathic perspective.

Leaving aside the contextual correlate of the empathizer's role, there appears to emerge another contextual correlate that seems relevant to the development of cognitive empathy: which aspect of the shared contextual situation is it that sparks off the empathy? For instance, does the entire context that surrounds Alice cause Kara's or the visitor's empathy? An affirmative answer here would be unrealistic. It seems that a critical factor giving rise to empathy is the ability to share not simply any aspect of 'the other's'

context but, basically, the recognition of a problem in 'the other's' context. In Alice's case, the kind of context that relates to Alice's problematic situation contains instances of violence. If this problem is not represented as a problem by the prospective empathizer, the opportunity to experience empathy is lost.

In this respect, since the empathic experience depends on the ability to share 'the other's' situational context (specifically a problem in it), much of the empathic experience depends on GP's view of the problem. If GP's role encourages a high degree of perspectival overlap, then GP may also treat the consequences of 'the other's' problem as consequences that affect GP, too (Bardzokas & Desilla, 2025; Tsita et al., 2026). In this respect, 'the other's' problem is considered the empathizer's problem too. On this account, Alice's father's on-going state of drunkenness leads him to disregard her problem as well as the consequences of his abusive tendency. In this picture, it is no wonder that he tends not to show any signs of empathy. Similarly, a stranger passing by Alice's house will probably ignore the entire situation and, thus, show unawareness of her problem or the consequences that it has on her.

Overall, it can be deduced that what drives the development of empathy (originally cognitive and then affective) is the identification of the problem that 'the other' is faced with, and the need to solve this problem, as if it concerned the empathizer. In this respect, the development of empathy requires perspectival overlap, in other words representing 'the other's' problem-related context.

6. Relevance theory and its connection to cognitive empathy

Relevance theory (Sperber & Wilson 1995) suggests that communication, verbal or otherwise, is intended to improve the individual's representation of the world. To this end, in a communicative event, the communicator uses a stimulus, such as the utterance of a word/sentence or a gesture, which is intended to induce an assumption or belief (or piece of information) in the addressee. This assumption is said to cause an alteration to the addressee's cognitive environment, in other words, the set of his[2] representations of the world (or the addressee's existing knowledge). The cognitive environment is designed to be constantly updated, as the individual is exposed to new stimuli.

According to Sperber & Wilson (1995), our context is our mental store of assumptions. In other words, it is of a representational nature, as it includes our memory of situational contexts. The context, then, includes a wide range of data: information perceived directly from the immediate environment or from recent conversations, expectations about the future, scientific ideas, general beliefs, and even our thoughts about what someone else is thinking.

If a stimulus achieves an improvement in the individual's cognitive environment, then it is considered relevant to the individual. Building on this suggestion, in order for a stimulus to achieve relevance to the individual, the individual employs a kind of syllogistic reasoning, in particular a kind of deduction, similar to the process employed by a detective solving a case. This syllogistic reasoning takes as input (premises) a new piece of information or data, conveyed by the stimulus, and combines it with the information already available in the existing context; the output of this reasoning process is a conclusion. The conclusion turns out to be relevant to an individual if it helps him interpret the stimulus in a way that secures amendments in his cognitive environment. Hence, a conclusion is thought of as an interpretive outcome. The syllogistic process under discussion is called contextualization.

The type of syllogism discussed in relevance theory is viewed as a non-demonstrative kind of deduction. This view is attributed to the rather plausible suggestion that the premises of the contextualization are not always evaluable in terms of a two-value logic: true or false. By contrast, an individual's assumptions in the contextual premises are, more often than not, less than certain and, in this respect, the content communicated or interpreted is an assumption that is held with a higher or lower degree of confidence.

It follows that it is more accurate to think about the strength (rather than the truth) of a conclusion, or how confident we are that this conclusion makes a genuinely relevant contribution to the context of the individual. All this strongly suggests that relevance is a matter of degree: an assumption may be relevant but less relevant than another. On a related note, the assumptions that one holds have different degrees of manifestness, in the sense that they are more or less strongly represented in the mind of the individual. As is explained, the strength of a manifest assumption depends on the manner in which it is acquired. For example, an idea acquired verbally is stronger than that picked up from body language.

We would like to claim that, in the face of a problem, syllogistic interpretation is seen as the type of interpretation that is relevant to problem solving. To elaborate, the syllogistic system is generally geared to assessing the relevance of an input-assumption against the context of an individual. On the other hand, in a narrower setting that involves problem solving, the syllogistic system is geared towards assessing the relevance of an input-assumption against the problem-related context. Given the goal-orientation of the problem-solving process (Mayer & Wittrock 2006), a conclusion is relevant to the individual if it is relevant to the solution to a problem experienced by the individual.

On this score, a problem solver acts as a critical interpreter of a problematic situation, collecting and contextualizing newly presented data in existing knowledge. This new input selects the sort of available contextual information that can contribute to the delivery of a conclusion that may count as a solution. On this analysis, the newly presented data operate as input to a contextualization process that is oriented to the goal of solving the problem.

[2] Following the relevance-theoretic paradigm, the communicator is a 'she' and the addressee is a 'he'.

At this point, it is important to recall that developing empathy does not simply implicate solving a problem. Rather, it implicates solving someone else's problem; and that, in this sense, it involves adopting the perspective of a person who suffers. Although we have explained how the relevance-driven syllogistic thinking functions in the face of a problem, the question remains as to how it applies to the case of empathic problem solving. Here it is worth introducing the notion of 'mutual cognitive environment'. In relevance-theoretic terms,

Any shared cognitive environment in which it is manifest which people share it is what we call a mutual cognitive environment. In a mutual cognitive environment, for every manifest assumption, the fact that it is manifest to the people who share this environment is itself manifest. In other words, in a mutual cognitive environment. Every manifest assumption is what we call mutually manifest (Sperber & Wilson 1995: 41-42).

In light of the notion of mutual cognitive environment, it can realistically be claimed that, in empathic situations, the empathizer's syllogistic reasoning is employed in the service of solving another person's problem. In other words, the availability of shared assumptions in a mutual cognitive environment gains the empathizer access to another individual's problem-related context, which the empathizer treats as his own. Thus, placing himself in the position of the other, he basically applies the syllogistic device to the other person's context, in the other person's best interest, particularly for the sake of solving a problem.

For example, in Detroit Become Human, Kara achieves empathy by means of gaining insight into Alice's context, more specifically, the type of context that relates to a serious problem that Alice suffers from. Kara uses contextual information and her syllogistic ability, with a view to reaching a conclusion (or making a sustainable decision) about Alice's way out of the problematic situation she is in.

Lastly, another prospect of applying relevance theory to syllogistic reasoning and cognitive empathy concerns the notion of epistemic vigilance. This is an interesting notion, as it seems to be inversely proportional to the notion of empathy. Let us make a brief detour in order to explain the notion.

As has already been pointed out, in the course of verbal interaction, interlocutors are faced with the cognitive task of interpreting the information expressed by an uttered sentence. Utterance interpretation engages the addressee in the process of contextualizing the newly presented utterance-input in current contextual or background information. As the body of background information consists of assumptions or beliefs, utterance interpretation inevitably involves the hearer in the critical assessment of the assumption under contextualization and, in particular, the assessment of the extent to which this assumption makes a reliable or genuinely relevant contribution to the contextualization process (Sperber et al., 2010).

On the other hand, the hearer is not defenseless against the speaker's art of persuasion. In order to attain a critical assessment of the speaker's contribution to the discussion, the addressee is said to employ a cognitive mechanism dedicated to exercising caution towards the source and the content of the input. This mechanism is called epistemic vigilance and constitutes a mind-reading ability that alerts the hearer to the prospect of being misinformed (Sperber et al., 2010). In a situation where the alteration of the hearer's context is guided by intentions of persuasion, the speaker may make linguistic choices that serve her interest.

As will be shown in the section that follows (section 7), epistemic vigilance may be used by the potential empathizer to control the development of empathy and the prospect of being manipulated.

7. Application of non-demonstrative deductive logic to the discussion of empathy: the case of empathic videogames

As mentioned above, in Detroit Become Human, androids are made in the service of human beings. At some point they achieve a high level of intelligence and develop their own volition. Humans treat them as a lesser kind of being or thing that was designed to serve a specific purpose. Any android that deviates from this role of their own accord is considered a deviant.

In one of the three parallel stories presented, Markus is an android that takes care of Carl, a renowned painter, who suffers from paralysis. At some point in the narrative, Carl's son, Leo, shows up in Carl's house. Grappling with addiction and animosity, Leo regards Markus as a competitor for his father's attention. The tension between Markus and Leo culminates in open conflict. Playing the role of Markus, GP empathize with the android, who finds himself exposed to unjust treatment and unprovoked aggression (Figure 2).

Figure 2



As GP are gradually exposed to the storyline, they collect information about Markus, Karl and Leo, the situation they are all in, as well as the problem of racism that Markus (and his fellow androids) is met with. This information is integrated into GP's cognitive environment and, on the occasion of a newly presented stimulus, i.e., a problem that Markus encounters (e.g., how to react to the prospect of a fight, or how to defuse tension) GP employ non-demonstrative syllogistic reasoning, so as to make decisions about an appropriate solution.

The problem-related input, then, selects contextual premises that are relevant to potential solutions to the problem identified, e.g., "Markus knows that he is treated as an inferior citizen or a potential deviant; Karl has asked him not to react to Leo's provocative attitude in order to avoid fueling the tension; If Makus reacts, he may cause further trouble; Karl is unable to defend himself", and so forth. This information undergoes contextualization, the upshot of which is a prediction (conclusion). This prediction is interpreted as relevant enough to the solution to a problem and is, thus, taken to motivate the GP's decision to act on it.

The issue of empathy seems to pertain to moral dilemmas. This comes as no surprise considering that, in the case of a moral dilemma, the person tackling it is faced with a problem and reaches two predictions (or possible decisions) as to how it can be resolved. Interestingly, then, syllogistic reasoning is in operation in resolving a moral dilemma too. To take an example, following his arrest at Karl's house, Markus is disassembled by the police and sent to a junkyard where many androids have been disposed of. In order to reboot himself, he urgently needs a component, which another android is in possession of. Considering his problem within the contextual situation described, Markus (or the player, for that matter) finds himself divided between two solutions (or decisions), i.e., either he takes this component and lets the android die, or he does not and continues to look for another component.

With regard to the notion of epistemic vigilance, in the game titled Red Dead Redemption II, GP assume the identity of Arthur Morgan. Arthur serves as the main enforcer of the Van der Linde gang and is initially dedicated to the gang's ideals. Yet, over time, he begins to doubt their morality and his place among them. His story includes a path of self-discovery and a quest for redemption, shaped by his history as an orphan and his early immersion in the gang. Arthur, whose actions are influenced by player choices, exhibits a capacity for violence and deep compassion.

In the particular game, GP, in the role of Arthur, must collect debts from individuals who have borrowed money from Leopold Strauss (figure 3). Debt collection may involve a straightforward case of demanding repayment or more complex scenarios including deception and, on occasion, violence.

Figure 3



In view of the problem of collecting debts, as well as the assumption that not all of the debtors are equally accountable or of the same financial standing, the player may have to reach a decision (or prediction) that is relevant to successfully extorting the debts. This decision-making point is critical for the development of the narrative. GP may be able to access the debtor's situation relative to the data that the setting (communicative or otherwise) supplies. If GP do, they may decide to take less severe action in reclaiming a debt.

GP's development of empathy for the debtor depends a) on the selection of contextual information that will become manifest to the player at the decision-making point and, crucially, b) on their disposition to exercise epistemic vigilance. If the player's vigilance alerts them to the possibility of being given invalid information, then the debtor's argument is declined as spurious. In this event, epistemic vigilance is viewed as blocking the development of empathy, thus reducing the likelihood of manipulation.

8. Conclusion

The current paper discussed the notion of cognitive empathy, with a view to contributing a detailed account of it to the relevant literature. Since not all contexts give rise to the development of empathy, the scope of this paper was limited to the context of videogames, particularly videogames with roles that inspire empathic experience.

Achieving cognitive empathy in the virtual reality of a videogame seems to require adopting the role of, or identifying with, a game character. This, in turn, requires GP to represent the context that surrounds the character, particularly the part of it that relates to a problem that the character is experiencing. In this sense, GP and the character share information that pertains to a problem. GP identify this problem and represent it as if it concerned GP. In this connection, GP employ a syllogistic process that revolves around solving this problem.

The involvement of a syllogistic process in problem solving brings into view the prospect of a pragmatic exploration. In this respect, the current paper discussed the value of relevance theory in explorations of cognitive empathy: the type of mental situation we find ourselves in when solving someone else's problems. On this score, it was shown that problem solving is governed by considerations of relevance. The empathizer gathers contextual information that is constrained by considerations of relevance to the recovery of possible solutions.

While the current discussion does not exhaust considerations of empathy, it is hoped that it has offered a more detailed picture of empathy as a syllogistically driven process of solving someone else's problem. Granted that the discussion was offered in the context of videogames, a popular activity for children, it is also hoped that videogames can be exploited for the sake of developing children's ability to show empathy for 'the other'.

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