The Reality of Computer Game Objects

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I

There is something puzzling about the nature of the creatures, furniture, vehicles and other objects we encounter in computer games. On the one hand they are similar to the pictures or signs we encounter in traditional media. As such, their typical role seems to be to depict real or fictional objects beyond what we actually see before us on the screen. On the other hand they exhibit features that are more like those found in the objects depicted, as they exhibit a range of independent behaviour when we interact with them. The source of the puzzlement is that two aspects pull in opposite directions: Their role as mere depictions does not fit with their behaviour as independent objects, and their candidacy for normal object status is hindered by their depictive role.

There are two especially natural strategies available to solve this tension. First, one might one might stick with the idea that the object behaviour they exhibit does not really distinguish them from non-interactive media, and regard them as a variant form of pictorial representation. Another strategy, which I think is very prevalent, is to grant them object status, but only in a qualified sense. They are to be regarded as something that neither belongs to the category of pictorial representations nor to the category of normal non-representational objects, but to something in between, called "simulated" or "virtual" objects.

In this presentation I will propose a third option, and that is that they should just be regarded as objects, no more in need of a qualification with regard to their semantic role or to their ontological status than the other physical objects that surround us. In doing so I do not intend to deny that they often have a representational function, or that they naturally or justifiably can be regarded as less "real" than ordinary objects, only to claim that none of this is due to their nature as game objects.

In my view the intermediate role of these objects should rather be accounted for the by the dual character of the *practices* they originate from. In certain settings, such as adventure games or simulation software, we pretend that the game objects have properties that only ordinary objects have. However, this function is dispensable, and in certain other settings, especially multiplayer games, the attitudes of the players toward the happenings in the graphical environment are better viewed as being directed at real properties of real objects.

I will first argue against the view that they are representations by nature. My main point here will be that games involve two-way interaction where pictorial media involves one-way interaction. In games this means that we are talking about action rather than interpretation, which introduces elements that override the representational function.

I then argue against the notion that they are "simulations" as a category of its own kind, on the ground that this proposal is explanatory empty.

I finally proceed to sketch a model for how the context allows these objects to have either a representative or non-representative function. According to this model, the consequence of interaction is that the representational properties are transmuted into non-representational properties that are counterparts to those found in ordinary objects.

II

The difference between a game and an animated movie and is that the former is structured around interaction with the medium, while the latter is not. Does the element of interaction have any consequences for the representational function in these different media? The simplest answer is that it does not: computer games are exactly like animated movies, except that they play out as we interact with them.

It might be useful to single out the three different cases this question invokes. We have traditional pictorial media, the interactive computer games and the interactive familiar objects. In all of these cases we encounter what superficially stand as reports about objects and events. Consider for example the event of opening a door, something we might talk about in all of these cases. Depending on the medium, this gives us three possible cases of "door openings" we can refer to with reports such as:

(1) Homer opened a door in Springfield
(2) Mary opened a door in Norrath
(3) John opened a door in Reggio Emilia

The suggestion that computer game objects are like the representations in traditional media corresponds in other words to the claim that the door opening reported in (2) is of the same kind as the door opening reported in (1).

The notion of representation that is operative in (1) depends on there being objects that carries a representative function, such as shapes printed on paper or patches of light projected on a screen. Furthermore, the notion of representation depends on there being a discrepancy between the object of interaction, which is the representation, and the object of attention, which is what is represented.

Thus, in the typical cases of representation, the object of interaction is the representation, which is some intermediary in the world that causes the individual to have various attitudes towards something else. For example, in a documentary about John F. Kennedy, the role of the images on the screen is to cause the individual to have beliefs about the former president, not about the images themselves. A drawing of Sherlock Holmes typically cause the individual to have various mental states about the fictional object Sherlock Holmes, not about the lines on the paper. The suggestion we are considering amounts to the idea that computer games are like animated movies in this respect. When I look at a door in EverQuest, the object of attention is a fictional door I picture in my imagination, not the shapes on the screen.

This proposal is very plausible on the face of it. After all, the computer game objects have historically entered the scene as animations, and it also clear that it very often is

the intention of the makers of such games to depict objects and events that do not really exist.

To discourage this idea, one should first make it clear that it is possible to accept all this, while still denying that the case reported by (1) is the same case as reported by (2). The question is not whether the on-screen shapes in computer games can point to real or fictional objects; what we want to know is whether that is their inherent semantic role, as it is with pictures.

It seems entirely possible that one should have a computer game based on shapes and movements that do not purport to represent anything at all. In such cases the objects of attention must be the shapes themselves and not something they represent.
The game Tetris comes close to a being a counterexample to the thesis that computer game objects are pictorial representations. Perhaps that shapes on the screen should be interpreted as falling blocks made out of stone, but if so, the actual behaviour of these blocks in the game is in blatant disregard of the behaviour of the objects they are supposed to represent. Also, if we were to encounter someone who had no idea what the shapes represents, we would still regard him as playing the same game as we did. The element of representation is not essential. In Tetris we should think of the shapes themselves as the objects of attention.

Another discouraging thought can arise from the fact that it is a contingent circumstance that we watch the computer game objects on a screen. In the near future we might be able to direct the output from a first-person game directly to sensual apparatus in the same way that we receive impressions from ordinary perception. In this case there is no intermediate object to take the role of the representation, and here we have no choice but to take the object of attention to be the same as the object of interaction.

With regard to the candidates for representation, there is also the more principled point relevant to this discussion that is raised by Espen Aarseth in “The Perception of Doors: Fiction versus Simulations in Games”(Aarseth 2005). With traditional media, such as pictures, there is an important difference between whether the picture depicts a real or a fictional object, such a picture of Captain Blood versus a photograph of

Uncle Oswald. In computer games, the importance of this difference is diminished, as it does not matter much to us whether what we are interacting with in a computer game is version a of Captain Blood or of Uncle Oswald. Intuition will have it that we are interacting with the *same kind of object* in both cases, whether there is a real-life referent or not.

The following line of thought might substantiate this intuition, and indicate how interaction put pressure on the notion that game objects depict real or fictional objects. First, there is an obvious difficulty created by interaction in the case that game objects are taken to pictorially represent real objects. Take for example, a game like "JFK Reloaded", also mentioned by Aarseth. In this game an on-screen object purports to represent John F. Kennedy under his assassination. However, the fact that the behaviour of the on-screen objects can be made to differ from what actually happened, means there is a difference about what is true about the on-screen object and JFK himself.

If this is right, the possibility of change in the representation due to interaction means that, if anything, it must depict fictional or non-existent states of affairs. In this case the element of interaction creates a different problem for the notion of representation. Fictional state of affairs, if they exist at all, are abstract in nature, and are not something that belong to the causal order of the world. The following seems to be a platitude: we open a door in a game, and the object in which we affect changes in is the same as the object of our attention. But this platitude is incompatible with the notion that on-screen objects are representations in the case of fictional objects or states of affairs, because that would require us to postulate interaction with something we cannot affect causally.

The point is admittedly contestable, as it probably is open to the proponent of this view to deny the platitude and hold that fictional changes in a fictional object is generated "on the fly" as a result of our interaction with the representation. To secure the consideration we can reflect about what the element of interaction and change should have to say for the relationship between the object of attention and the object of interaction.

The principled difference can be said to be that full-fledged interaction does introduce an element that is completely different from that operative in traditional pictorial representation. The "interaction" that is present in traditional pictorial representation is entirely one way, as it is designed to induce beliefs and other states in the individual about the object of attention. However, in computer games the interaction goes both ways, and requires setting up a relationship from the individual to the changes in the object he effects. With regard to the identification of the object of attention, the former is the domain of *interpretation* while the latter is the domain of *action.*

The element that is introduced with action is the relationship between an individual's beliefs and the outcome of his actions. This relationship is subject to a particular restriction, and that the individual must be assigned a measure of rational control. This restriction dictates that there are clear limits as to how large the discrepancy can be between the object of interaction and the object of attention.

To bring forth the consequences of this restriction for the object of attention one might envisage a case that shows how it affects the representative function of on-screen objects. Take as an example the graphical shapes that show an operator the status of the rods in an atomic power plant. Here we may imagine that there is a perfect correlation between the behaviour of the graphical shapes on the screen and the rods in the reactor. This clearly a case in which we are free to say that the object of the attention is the reactor rods, and the shapes merely has the function of mediating what happens to them. The shapes in this case are properly regarded as representations.

However, if the correlation between the shapes gradually gets unreliable, this will change. If there is only a small variance, then the behaviour of the shapes will give rise to an error in the individual's beliefs about the rods. This is tolerable within certain limits, but as the unreliability increases, it will become difficult track the relationship between the beliefs the individual has and the outcome of his actions. At one point, in order to comply with the requirement that he has control over the outcome of his actions, we must regard him as inducing changes on the shapes on the screen rather than the reactor rods. This turning point will happen fairly quickly. It may of course still be the case about that he thinks that things happen with the reactor

rods, but that must be rather be regarded as an additional beliefs he has about the graphical shapes on the screen.

The relationship that is set up between a representation or a sign and the object it depicts is created in an entirely different way. It depends on much more precarious correlations set up by usage or to perceptual similarities, and represents a different and a weaker force than the element provided by action.

III

The outcome of the previous discussion is that there is ample reason to regard (1) and (2) as reporting different state of affairs. However, if the considerations in the previous section are on the right track, it does not follow that what is reported with (2) is the same phenomenon as is reported in (3). For all their object-like behaviour, you can't really cut with an in-game sword, or sit on in-game chair or open an in-game door in the same way as you do with "real" swords, chairs or doors. These kinds of happenings do seem to depend on some representative relation to "real world" happenings that makes them count as less than a full-fledged object.

The proposal we should now consider is whether these objects belong to a special kind of "virtual" or "simulated" objects. As with the previous proposal, we should be careful to make it clear that this is not to whether game objects can or cannot be used to simulate things, but rather whether it is their inherent role to simulate, in the same way that it is the role of pictures to pictorially represent.

To approach this issue it might be useful to coin a neutral way of referring the distinction between the objects we encounter in electronic environments and the familiar objects we want to compare them with. Let us call the objects we encounter in computer generated graphical environments for c-object, and the familiar objects that we normally interact with for f-objects.

What motivates the proposal that the c-objects belong to a special class of "simulated" objects is a certain ontological hesitance. This hesitance can be brought forth by the fact that it seemingly makes good sense to deny both report (1) and (2) in a way that is not possible for report (3). Thus, in a sense it seemingly is both the case that

(4) Bart did not open a door in Springfield
(5) Mary did not open a door in Norrath

But surely not the case that

(6) John did not open a door in Reggio Emila.

As we have noted, the proposal that the game objects belong to a special category of simulated objects is tailor made to make sense of this. The difference between (5) and (6) is supposed to be due to the fact that the first refer to "simulated" doors and door openings, while the latter refer to "real" doors and door openings.

However natural this suggestion might be, this way of accounting for the discrepancy between (2) and (3) in terms of a difference in kind between c-objects and f-objects is fundamentally suspect. To be an explanation of a difference in kind between the c-objects and the f-objects, the relation "Object Y is a virtual object X" is called upon to explain the relation "Object Y is less real than object X".

What would a claim about the existence of such a special kind amount to? According to Michael Heim the term "virtual" means "not actually but just as if"" (Heim 1993: 160), and according to Pierces classical definition "A virtual X (where X is a common noun) is something, not an X, which has the same efficiency (virtus) as X." (Baldwin 1902: 763). Pierce's definition suggests that the virtual object would replicate of effects of an X, while Heim's definition leaves it open whether the features of the virtual relation can be described in other ways.

Exactly what "virtual" is supposed to mean does not really matter, because all versions are likely to have the same defect. In order for the relation "Y is a virtual X" to account for the relation "Y is less real than X", two things are required. First, it

must refer to a relation that gives the claim of virtuality informative content, and secondly it must contain an evaluative component or implication that allows us to rank the one relatum as more "real" than the other. But both the informative component as well as the evaluative component spells problems for the attempt to use virtuality to account for the fact that c-objects are less real than the f-objects.

A problem for the virtuality relation is that it does not mean that the c-objects always end up in the same place. The c-objects can have features that are *sui generis*. They can have such things as interfaces, save-capabilities, various object manipulation capabilities, or contain phenomena like spawning or portals. These cannot naturally be found in f-objects, and so there is nothing to prevent us from making virtual complements of such features in the world of f-objects. If you construct a mechanical presentation board, you can make yourself a virtual cursor or a virtual drop down menu with the help of wires. If you participate in a war game in the world of f-objects you can drop your non-combatant markings to get a virtual spawning.

The main problem with virtuality still concerns the evaluative component, because it appears to make the proposal question begging when the relation is used as a criterion for counting c-objects as less real than f-objects. A mere dependency relation does not automatically translate into an evaluation of the reality status of the thing or the features that depends on something else. When the notion of virtuality achieves a ranking, it is probably because it belongs to class of explicitly evaluative relations like "copy" or "forgery".

The problem with assessments using such relations is that they depend an antecedent *decision* on something taking the priority place in the relation. For example, if we rank the reality of two identical looking pieces of bank notes by saying one is an original, while the other a copy, we must presuppose that it is the one that is by printed by the government that is the real one. Likewise, to call the c-objects virtual must involve making a prior decision about what objects counts as the real ones. There is in nothing wrong with such evaluations, but the problem in the present discussion is that makes the use of the virtuality relation blatantly question begging when used as a criterion to deem that "Object Y is less real than object X". We already know that the f-objects have been put in the priority place. The evaluation

done in judging something to be a virtual X presupposes, rather than informs us, of what it is with these objects that makes them deserve this place. The proposal that what accounts for the difference between (2) and (3) is that the c-objects are "virtual" objects is probably just an empty claim. If this is the right diagnosis, it also explains why it seems to be so elusive get anything informative out of the notion of virtuality. Calling something "virtual" as an ontological characteristic may simply be a way of putting a word on ignorance.

IV

We can now go on to consider the alternative that the c-objects should be regarded as plain real objects without any semantic or ontological qualification needed.

What stands in the way of this proposal is expressed by the obvious discrepancy between (5) and (6). The source of the problem is that the object called a "door" and the event of a "door opening" refer to similar, but not identical things in (5) and (6). The same goes for a range of objects and activities that seemingly happen in games, such as shooting, walking, stabbing etc.

Note, however, that there are two ways in which the attitudes of the player can be accounted for. The on-screen shapes in Tetris the may be taken to represent falling blocks in the world of f-objects. The player can *pretend* this if she wants, but this of very little consequence for the way the game plays. In Tetris the player can just as well be regarded as having the attitudes about the shapes on the screen as of blocks of stone. This distinction has immediate consequences for the ontological hesitance we identified in relation to game objects, because once the attitude of pretence is dropped, the ontological hesitance goes with it. Shapes on the screen are not less real than blocks of stone. They are just different things.

In fact, the same duality can be held to be present for the phenomena referred to as "opening", "walking", "drinking" or "shooting" in games. When you are playing a single player adventure game it is very important to game play that you pretend that

you are doing all of these things in the world of f-objects, because the purpose of the game is to immerse you in a narrative. But when you "shoot" another player in a game of Unreal Tournament, or buy an item in a MMORPG for f-money this pretence may not be present in the same way. The player is in these cases are perfectly aware of the fact that these c-objects are different from those we find in the world of f-objects, but that may not make for much of a difference, as it is the social relations, not the narrative, that make her actions worth their while.

These observations indicate that there actually are two different interpretations of (2). One expresses what the player pretends with the literally false report:

(2a) Mary f-opened an f-door in Norrath

On the other hand we have the literally true report:

(2b) Mary c-opened a c-door in Norrath

This distinction has consequences for the matters we have been discussing. The proposal goes a considerable way toward accounting for the discrepancy between (5) and (6).

Taking into account the differing interpretations of (2), we have from before that the negation of (3)

(6) John did not open a door in Reggio Emila.

is straightforwardly false. Under the present proposal the negation of (2)

(5) Mary did not open a door in Norrath

goes from ambiguous with regard to its truth to straightforwardly true in the sense that:

(5a) Mary did not f-open an f-door in Norrath

and straightforwardly false in the sense that:

(5b) Mary did not c-open a c-door in Norrath

In other words, the he hesitancy present for c-objects is nothing other than the traditional hesitancy due to fictional pretence.

For this model to work, however, it depends on postulating a curious relationship between the representational function of the c-object and its properties.

When the a c-object do have a representational function it is indeed as a form of simulation, but not in the way discussed in the previous section, for there is a distinction between calling something a simulated object and calling an object a simulation. Generally, all kinds of objects have the potential to be simulations. An orange can be used to simulate the movements of a car, oil can be used to simulate the flow of air at high velocities, and people can be used to simulate the happenings in a crime in a police reconstruction.

What happens in these cases is that certain base properties of the objects used for simulation are assigned bridge principles that translate them into fictional properties about the things they should represent. With computer games, however, it must in a sense be the other way around. We start with representational properties instilled in behaviour of the c-objects in the form of shooting, walking, opening etc. In a pictorial representation these would indeed be mere representational properties. The object behaviour of the c-objects, however, means that these fictional properties are transmuted into real counterpart properties in the c-objects.

Whether the c-objects should be regarded as having a simulation relation to the world of f-objects then depends on how they are used. In the case of representational pretence they can have simulation relation to f-objects, but when the pretence is dropped, the fictional properties are transmuted into real c-properties. In these cases, the c-objects cease to be simulations and carry these semantic functions as a mere reminiscence.

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(1) Homer opened a door in Springfield

(2) Mary opened a door in Norrath

(2a) Mary f-opened an f-door in Norrath

(2b) Mary c-opened a c-door in Norrath

(3) John opened a door in Reggio Emilia

(4) Bart did not open a door in Springfield

(5) Mary did not open a door in Norrath

(5a) Mary did not f-open an f-door in Norrath

(5b) Mary did not c-open a c-door in Norrath

(6) John did not open a door in Reggio Emila.