The Definition of Videogames Revisited

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Philosophy and Videogames

What can philosophy contribute to the study of computer games?

This was a question I asked myself when I began writing on this topic, and it turned out to be central consideration in my book on videogaming and philosophical aesthetics. It is also a question that underpins the present conference. I take it that most of the people attending this conference do think that philosophy has something distinctive and valuable to contribute to the study of videogaming.

I think the answer to this question comes in two parts. First, there is a not inconsiderable body of theory that seems applicable to videogaming. Theories designed to explain non-videogames find an ideal application in the case of videogames, just because this new domain of artefacts touches on issues of traditional concern to philosophy, such as representation, art, fiction, and ethics. For example, I think it has become clear to a number of people just how loaded with implications for videogames is Walton's seminal work on fiction (1990); and I look forward to seeing his own and other's discussion of his work in this conference.

Second, there is a body of method within philosophy, refined over the course of many years in studies of diverse issues that seems of use in framing this new study. Games are new, and naturally so is their study, so we should expect the consideration of the kind of methodological issues that are the bread and butter of analytic philosophy. One of the key methods of use here is definition, and it seems of obvious value in the study of videogames.

Here is the provocative part of this address. Reading the current *games studies* literature can at times be a bewildering experience; I am sure I'm not the only person here to have had such a response. Perhaps this comes from certain disciplinary incompatibilities between philosophy and the disciplines that have studied gaming up until this time. But it surely is also because the games studies literature is very often confused. More provocatively still, sometimes it seems that games studies authors are engaging in a willing obfuscation of the issues, and that their intention is to *problematise* videogames, rather than to look for analytical clarity.

As such, more than one of the key debates in games studies—most notoriously, the debate between so-called *narratology* and *ludology*—strike me as resting on a simple lack of preciseness. I suspect that if ludologists and narratologists would at the outset precisely define what they mean to refer to by the terms *game* and *narrative* that much of that debate would simply dissolve. Similarly, the *magic circle* hubbub seems to me entirely due to such talk being rooted in a vague metaphor for which careful analysis again seems the appropriate treatment.

I also judge that there is a certain amount of scepticism about the reasonableness or usefulness of definitions within games studies, where there often seems to be an unwillingness to offer or even engage with definitions of videogames or other terms. Indeed, some games theorists come close to scoffing at the very idea of a definition of gaming, perhaps thinking the practice owing to a putatively outmoded *positivist* or *logocentric* conception of humanistic study.

Hence, in what follows, I want discuss the *reasonableness* of definition in the case of videogames. I will do this by inquiring into the range of definitions available, and the analytic roles that they can take. Launching a defence of definition might seem an odd thing to for an analytic philosopher to want to do; but I think that it is in this case very much warranted, due both to the early stages of the philosophical concern with videogames, and to the resistance I think philosophers will inevitably encounter from games studies scholars on this issue.

On Definition

There seem to be at least two kinds of worry we might have with a case of definition. First, a long history of failed definitions in a particular case might convince us that a definition in that instance is futile. Second, we might think that there are theoretical issues which undermine the very practice of definition giving in some instance. Take the definition of art debate that will be familiar to philosophers of the arts; scepticism about the project might arise from the perceived failure of the debate to settle on a favoured definition, or even make progress in doing so, or it may stem from some theoretical worry that art is not even the kind of thing that could be defined.

The first kind of worry may be more psychologically than logically convincing; there may be any number of contingent facts for the lack of a settled agreement in a particular instance. Nevertheless, as a debate grinds on without resolution, we may begin to suspect that there is something deeper at fault, and turn our attention to theoretical issues.

But to address this first issue in the case of videogames, it is certainly too early to judge that videogames cannot be defined because of the persistent failure of theorists to find a definition, because the definition of videogames debate simply has not yet occurred. There is no long history of definitions of videogames or computer games being offered and then refuted, because the game studies literature has not seriously engaged with this definitional issue.

I expect that some people in the audience might think games studies *has* had this debate, but this would be a mistake. The topic of definition has not gone unnoticed in games studies, but it has almost always been couched in a very unfortunate way. The concern with definitions that does exist is principally with the definition of *games simpliciter*. So, to take the most prominent examples of games studies' concern with definitions, found in Katie Salen and Eric Zimmerman's survey of game definitions (2003), and Jesper Juul's similar work (2005), the model definitions that are discussed are almost always definitions that were formulated to account for *non-videogames*. Juul explicitly notes this by referring to his definition as the "classic game model" (2005: 36-43). It is no surprise then that these studies do not supply adequate definitions of *videogames* or *computer games*, because they simply do not try to do so.

This indeed is a significant problem with games studies, and it comes close to comprising a way in which the field has been radically misconceived. Formulating the discipline in a manner that explicitly refers to traditional games, and often simply inferring from theories

couched to explain non-videogames to conclusions about videogames, seems to merely assume that videogames are always games in a traditional mode. Surely there are connections between traditional games and videogames—the designation of *game* to these new digital artefacts is not accidental and depends on real points of similarity. But surely it is also a possibility that the designation may be unprincipled, being clearly appropriate in some cases—most evidently, in "transmedial" cases where traditional games might become videogames through media transposition (Juul, 2005: 48)—but in other cases amounting to little more than an unreflective supposition. Indeed, I think there is evidence to suggest this, as Juul himself discovers when he is forced to conclude that under the classic game model, such a seminal videogame as *Simcity* counts as a "borderline" case of a game (2005: 43). This may be the case, but *Simcity* is surely a clear and non-borderline instance of a *videogame*. Perhaps it is time to address the definition of videogames and computer games directly?

The second kind of worry with definitions is theoretical: that is, it is based not only on the contingent failure of previous definitions, but problems with the definitional process itself. In the definition of art debate, Morris Weitz's claim that art is an "open concept," and hence resistant to definition, is of this form (1956). But if that debate shows anything, it is that Weitz's theoretically motivated conclusions were premature, as they turned out to be based on a problematic conception of the definitional process, and one that did not acknowledge the genuine range of potential definitions and the kinds of properties they might count as conditions. Weitz did not envisage that definitions might make creativity or novelty a definitional condition of art—thus allowing that the category of art could expand to encompass future creative or novel instances—or that definitions might be formulated in terms of *relational* features rather than *intrinsic* ones, again allowing the category to include instances that are novel in terms of their intrinsic properties. The subsequent debate has explored these issues in what has been an informative and productive manner, even if it has not generated any great amount of agreement (Davies, 1991; Carroll, 2000).

Hence, it is worthwhile here to address the theoretical reasonableness of defining videogames. How reasonable is it to expect a definition of videogames? The answer we give to this question very much depends on what we think of as the nature and rationale of definition-giving. There are in fact a variety of ways in which definitions are used, and on different models the reasonableness and the explanatory usefulness of the definition of videogames may appear very different.

Often definition is confined to charting usage, and providing a specification of a concept that might be of use in understanding how it fits into everyday conversation. Such *nominal* considerations are of clear significance in the case of videogames, given the variants used in this connection: *computer game*, *electronic game*, *console game, PC game,* and *handheld game* have all been used to refer to videogames, or some class of them, and they are not always synonyms. *Computer game* is sometimes taken to refer to games on a personal computer, but it is also used as the generic term; *electronic game* might refer to toys as well as videogames; while *videogame*, as well as being a generic term, is sometimes used to refer exclusively to console games such as those on the X-Box 360 or Playstation 3. This issue should also be obvious to the audience from my use of the term *videogame*; isn't this conference about the philosophy of *computer games*? Why have I used the term *videogame* then? Simply, it's the term used most frequently where I come from. I will have more to say on this shortly.

If the question of the reasonableness of definitions is thought to hinge on this nominal sense, then the definition of videogames will seems eminently reasonable—but at the same time explanatorily trivial. Any decent dictionary will have already solved the problem under concern here; but such definitions are almost useless when we come to the *explanation* of gaming because they do not take us beyond what we already know if we are competent speakers.

Other conceptions of definition are likely to be of more explanatory use, but at the same time potentially problematic in the case of videogames. *Essentialist definitions* come in the form of a condition or set of conditions that are claimed to be *necessary* and *sufficient* for *x* to be *y*. To take a well-worn example, gold can be defined as the element with the atomic number 79, because gold must have this makeup, and if a substance has this makeup, then that guarantees that it is gold. In philosophical parlance, a substance is gold *if and only if* it has such a microstructural composition. The necessary and sufficient conditions are often thought to explicate the *essence* of the defined term, and such essentialist definition is a substantive conception of definition in that it is an explanation what it is that makes all members of a given class—be it gold, art, videogames—members of that class.

But if we are expecting to find such an essentialist definition of videogames, one that swallows the nominal term whole, and then identifies a single property (or set of properties) that all and only videogames share, there is reason to think we will be disappointed. Videogames are a collection of designed artefacts aimed at exploiting the entertainment possibilities of digital technology, a technology which itself is subject to rapid change: things that are possible now were not even envisaged when the technology originated. Each videogame is not only technologically contingent, but depends on the intentional decisions of its designers and on a diverging set of precedent games and game traditions. Just as there are so many ways to "skin a cat" there have turned out to be any number of ways to tease the entertainment possibilities out of digital media. The growth of the category of *videogames* may in a genuine sense be unprincipled. Furthermore, though I have argued the consideration of the definition of art debate to be useful here (2008), the definition of videogames is also quite different to that older debate. In particular, with videogames we are not tempted to postulate the kind of *functionalist* or *naturalist* theories as we might with art. And of course we do not expect videogames to be an enduring aspect of human nature, but rather an accidental technological discovery. As a result we may have no immediate reason to expect digital entertainments to share features other than those owing to their digital media and entertainment function; features it should be noted that clearly exist in related media such as electronic toys, digital movies and internet sites.

This may be the case even given the continued use of the terms *videogame* and *computer game* to describe these artefacts, because another suspicion about the essentialist mode of definition in regard to videogames is that it may reify a vernacular category term that owes to an accidental history of usage, and one resulting from any number of non-explanatory considerations. Indeed, the nominal variations distinguished above seem to bear this point out by showing how videogames and related artefacts *are* subject to different groupings that are prone to accidental variations. To seek some sort of essence may make the assumption that there is a categorical unity where none exists, besides the mere fact that an extension is picked out by a name in common usage. Similarly, in his study on mental ontology, Paul Griffiths argues that our vernacular term *emotion* cuts across explanatorily motivated categories, and that a simple essentialist definition of the emotions is likely to fail just because it assumes a unity to the category that does not exist (1997).

Moreover, to adopt an essentialist method in the case of videogames may assume that there actually is agreement about the *extension* of the category. I noted the nominal variation in how computer and videogames are referred to and how these variants do seem to align with different extensions. But it is not even clear with a single variant like *videogame* that there really is agreement on which things are videogames. This has the potential to undermine the method with which essentialist definitions are produced, criticised and refined, in that categorial intuitions might simply diverge about difficult cases. Is *Tori-Emaki*—a download available from the Playstation Store—really a *videogame*, or an *interactive visualisation*? My intuition suggests the latter, and I have seen others express such opinions, but does this really settle the matter?

It is not really my intention in this paper to establish that videogames cannot be given a definition in terms of necessary and sufficient conditions, but rather to acknowledge the doubts that may exist. What I want to argue here is that *even if* this kind of anti-essentialism is true in the case of videogames, this is no argument against seeking definitional clarity, because essentialist definition does not exhaust the theoretically motivated uses that we might put definitions toward. Defining videogames can be a reasonable objective even if essentialist definitions are not.

Even in much of the natural sciences—where we might expect essences to be found if anywhere—it has become clear that essentialism and essentialist definitions are problematic, and that if one adheres too strictly to an essentialist way of thinking, problems and misunderstandings are often likely to arise (Dawkins, 2004). In the case of taxonomic categories such as *species*, for example, it has been extraordinarily difficult to find an essentialist principle on which such categories might rest. Partly this is because the apparent fixity and unity of such categories owes more to our limited temporal perspective, than the biological ground that is being staked out. Indeed, this has given rise to a certain amount of *merely semantic* disagreement, such as where parties might disagree over which genus a fossil species *really* belongs in (Dawkins, 2004: 238-242); a fact that illustrates that the same lack of understanding of the fluid and contingent nature of categories may exist in the sciences and the humanities. But this has not led to the wholesale rejection of definitions in such cases—or even the notions of essences—but instead has seen the increasing sophistication of the conceptual practices of philosophers of science to account for the problems inherent in scientific categorisation, such as in Richard Boyd's notion of "homeostatic property clusters" (Boyd, 1999). Scientists still define their terms, as it abundantly clear from scientific literature, but they do so knowing that the definitions are not a magical window into the essences of things, but are themselves tools designed to isolate facts that are of explanatory use in some scientific investigation.

Disjunctive Definition

What modifications might we make to our conception of definition to derive an analytic tool more apt for the nature of our investigation into videogames? One might respond to a case where a simple necessary and sufficient condition definition seems unavailable by proposing a *disjunctive definition*. Disjunctive definitions are those that contain a disjunctive or either/or clause, and they have been proposed, quite compellingly, in the case of art (Dutton, 2006, 2009; Davies, 2004). In this present case a set of properties may be individually or jointly *sufficient* for *x* to be a videogame, but it is not specified that they are individually *necessary* for *x* to be so.

Disjunctive definitions are not without their own problems. They can appear *list-like* or *extensional*: that is, merely listing the extension of a concept in a potentially capricious or trivial way. And unlike essentialist definitions they may not give a rationale for how the defined category can be extended in a principled way to include future cases. Still, this may be a fact owing the phenomena that such disjunctive categories best cover rather than any fault with the definition itself. In the case of theories of the arts, such definitions are meant to capture the intuition that there may be more than one way to be art (Dutton, 2006). A conceptual precedent for disjunctive definitions is Wittgenstein's notion of "family resemblances" (1968). One credible reason for that idea is that some factual domains may have looser or more complicated conceptual relations than those that can be captured by necessary and sufficient condition essentialism.

Disjunctive definitions may also be valid in the case that a vernacular term simply does not pick out a monolithic category, but where there is some rationale for retaining the nominal term. To revisit Griffiths' ideas about the categorical contingency of the emotions; the emotions exist as a grouping in name only, but given that the term is also one used in our daily explanatory project of understanding human behaviour, the elimination of the category may be undesirable for pragmatic reasons. Similarly, if we discover that videogames form a category in name only, being the unprincipled vernacular grouping of items that are genuinely distinct, there still might be a pragmatic reason to desire retaining the nominal term and specifying it in a disjunctive way. One such motivation is clear here: the explanation of videogames or computer games might have to confront the fact that the categories are not monolithic. But we still have an interest in explaining "videogames," and a disjunctive definition is one way to build this contingency into our explanation.

Considerations like these were at the basis of my paper on the definition of videogames in *Contemporary Aesthetics*, where I argued that videogames can best be defined by a conjunction of two necessary conditions—a *digital/visual medium* condition and an *entertainment* condition—and a disjunction that summarizes how the former necessary condition instantiates the latter: *rule and objective gameplay*, and *interactive fiction*:

> X is a videogame *iff* it is an artefact in a visual digital medium, is intended as an object of entertainment, and is intended to provide such entertainment through the employment of one or both of the following modes of engagement: rule and objective gameplay or interactive fiction.
>
> (Tavinor, 2008)

I do not want to revisit my entire argument for this definition here, but I will note that an important motivation for the disjunctive aspect of this definition is that it explains some of the links that videogames have to earlier forms of culture, in particular, traditional games and fictions. These forms are clearly seen in other media, and it is these similarities that may have tempted games theorists to characterize games in terms of those previous forms—even if the *fictive* aspects of videogames are mislabelled as being *virtual*, or being comprised of *simulations* or *narratives*, as I argue is often the case (Tavinor, 2009: 44-51). Videogaming is a manner in which these traditional forms of entertainment have been implemented in a new technologically derived medium. But even though most games involve *both* fiction and gaming—a key argument of my book is that videogames, especially those depicting a player-character within a fictional world, encode their gameplay in fictions—there are clear

examples of videogames that do not involve fictions or do not involve gaming, when these terms are themselves suitably defined (Tavinor, 2008).

This disjunctive definition was thus an attempt to circumvent the problems with an essentialist approach to gaming by arguing that the vernacular term may be in a certain sense unprincipled, while retaining the analytic contribution that I have argued that definitions can make to a study. Having provided a definition, in the book I quickly move on to a more substantive explanation of the individual conditions picked out by the definition—in particular, fiction, gaming, and digital visual media—seeing this task as the real substance of the theory of gaming. Such a disjunctive analysis, of course, is a step in the direction of *extensional* definition; that is, it explicates the *definiendum* in an almost list-like way. Principles of parsimony suggest that we should prefer to avoid such extensional definitions, but in this case, I think there is reason to think it an appropriate response.

Explicative Definition

Another mode of definition that escapes the theoretical arguments about the potential for defining *videogame* in an essentialist manner is definition in an *explicative* mode. Explicative definitions differ to the essentialist definitions, not by claiming that categories cannot be defined in terms of necessary and sufficient conditions (as disjunctive definition do), but rather by the claim that the appropriate targets for definition may not be the concepts we actually use, but some revision or reformulation of these. In his study of semantics and modal logic, Carnap states that "The task of making exact a vague or not quite exact concept used in everyday life or in an earlier stage of logical or scientific development, or rather of replacing it by a newly constructed, more exact concept, belongs among the most important tasks of logical analysis and logical construction" (Carnap, 1956: 7-8). The observation seems applicable in the current study. A key part of this explicative approach to definition is the willingness to pick out different strands in concepts, and build these into distinctions, perhaps even cleaving a vernacular category in two if this helps to clarify our understanding of things. I think the issues under question here do stand to benefit from such an explicative approach.

Take a term of immediate relevance: *game*. As everyone here should be aware, the term has a history of definitional scepticism, playing the role of an example in Wittgenstein's philosophy (Wittgenstein, 1968). Furthermore, anyone who has dipped into the classic sociological literature on gaming—exemplified in Huizinga's classic work (1950)—might suspect that *gaming* and *play* are so ubiquitous as to be almost theoretically uninteresting. Games can be seen to exist wherever people take a playful *attitude* to some activity, which might imply that gaming is not comprised of a distinctive class of artefacts, but by a human practice not necessarily connected to any particular class of *things*. I expect this is another part of the reason that games studies has not been keen on defining the term. However, this ubiquity is no reason to relinquish the desire for analytic clarity; rather, it is surely an impetus to further analyse the category of *games*, looking for variations and ways to derive analytical classes with explanatory interest. One way to do this is to provide explicative definitions.

One such explicative class is what we might call *rule and objective* gaming, and it is this category referred to in a number of the definitions covered by Juul's "classic game model" (2005: 36-43). It is not clear to me that this class cannot be staked out in some analytical way that could be the focus of an explanatory project, though I cannot carry out this task in the space I have here. Of course, this is not to say that the definition will cleave along vernacular boundaries, because it will not include items that we are commonly tempted to refer to as

games. It may even grate with our pre-theoretical understanding of the term (just as some previous explicative definitions do, such as the formal definition of the *conditional* in propositional logic). But what the explicative definition will do is to distinguish a class of artefacts in which there are genuine instances, and that can become the focus of study. Correspondingly, explicative definition may allow us to avoid the problem of whether a categorical extension is really agreed on, because explication of a concept will involve *determining* the extension of the concept. Defining the term *game* in this way might ultimately be an act of categorical stipulation, constructed to meet our explanatory needs rather than to align with a previous usage.

I suspect a similar explicative tack might be taken in the approach to the definition of videogaming. To explain this I will need to briefly revisit my disjunctive definition. Again, the definition contends that videogames can be defined by two necessary conditions—a *media* condition, and an *entertainment* condition—and a disjunctive clause that specifies the ways in which computer or videogames have instantiated these conditions: through *rule and objective gaming*, and *interactive fiction*. As a part of providing this definition, both in my original paper, and in the section of the book where I add further clarification, I set about covering possible objections. In particular I considered that there might be some single condition that could combine the disjunctive clause in an encompassing way, perhaps by specifying a sense of *interactive entertainment*. Ultimately I rejected this, arguing that if the notion of interactive entertainment was wide enough to encompass both kinds of interactive means seen in videogames—rule and objective gameplay and interactive fiction—then it would also include much not traditionally thought of as videogaming. It was not clear to me that these two modes of engagement shared a sense of interaction not shared by other forms of digital entertainment.

But perhaps I was too swift here in dismissing the possibility that rule and objective gameplay and interactive fiction share a sense of interaction that might be useful in formulating an essentialist definition. What I am going to do in the remainder of the address is to explore this option further, thus investigating a possible counter to my own disjunctive definition.

In his investigation of the ontology of computer art, the philosopher of the arts Dominic Lopes (2001) explicates a sense of "strong interaction" that may allow us to marry the modes of engagement in videogames that I have claimed to be only disjunctive, into a single condition, thus showing what it is that rule and objective gameplay and interactive fiction share. Lopes is principally interested in interactive digital art, though in book just published he extends this view to videogames, arguing that they may exist at the popular end of this class of computer art (2009).

Lopes' theory begins with the observation that that a number of artworks made for computers are interactive in a way that traditional kinds of art are not. He distinguishes "strongly interactive" works from "weakly interactive" ones, and claims, drawing out a sense of *interactivity* inherent in the domain of games, that:

> Games are "strongly interactive" because their users' inputs help determine the subsequent state of play. Whereas in weakly interactive media the user's input determines which structure is accessed or the sequence in which it is accessed, in strongly interactive media we may say that the structure itself is shaped in part by the interactor's choices. Thus strongly interactive works are those who structural properties are partly determined by the interactor's actions.

Much of what is referred to as interactive in the digital realm is only weakly interactive because it involves the participant merely navigating their way through a predefined structure. Games like chess, however, are strongly interactive because the sequence of game states is determined by decisions made by players given the starting state and the rule-set or "algorithm" that defines the permissible state transformations or moves (Cf. Juul, 2005: 61-63). This characterization of the strong interactivity of games is suitably applied in the case of many interactive artworks because both share an algorithmic nature that impacts on the structure ultimately produced. When the interactive object in question is an artwork, the structures in question are those that are "whatever intrinsic or representational properties it has the apprehension of which are necessary for aesthetic engagement with it" (2001: 68).

It is clear enough that the interactive features of many videogames are strongly interactive ones. Modern videogames do not merely involve choosing the order in which the representational structures of the work are experienced, but involve the player having an effect on just which potential structures of the game are depicted, and how those structures end up being depicted (Tavinor, 2009: 61-85). Moreover, many videogames function as interactive fictive "props" (Walton, 1990). *Fallout 3* for example, is not a work fixed at the time of its production, but a prop that allows for any number of structurally different renderings comprising unique fictions charting the player-character's exploration of the Capital Wasteland; as such it fits within the domain of strongly interactive art (though of a popular form).

Perhaps, then, it might be claimed that an alternative to my disjunctive definition of videogaming is that the disjunctive clause can be combined into a single necessary condition that, in conjunction with the other conditions, is jointly sufficient to make something a videogame:

> X is a videogame *iff* it is an artefact in a visual digital medium, is intended as an object of entertainment, and is strongly interactive.

In this definition, a collection of artefacts that in my disjunctive definition is claimed to be disparate, is united through the theoretical notion of *strong interaction*, hence providing an *essentialist* definition of videogaming. Maybe essentialism is a prospect after all? This might seem a considerable improvement for reasons of explanatory parsimony.

There may be problems here however, because it is not clear that strong interaction is jointly sufficient with the media and entertainment conditions for an object to be a videogame, and second, that it is necessary for a videogame to be strongly interactive.

First, there seem to be digital visual entertainments that are strongly interactive, because the interactor contributes to visual structure is rendered, but that are not videogames. Some tech demos, such as *Paint Party*, a demo for Microsoft's *Project Natal* control peripheral, may count as examples. Some of the *applications* for the Nintendo DSi may also be examples: the DSi allows its users to manipulate images, real-time videos, and music to produce entertaining effects. These are cases of strong interaction, because the algorithm at the basis of the application produces a visual or sound structure "that is shaped by the interactor's choices," but they do not seem to be games; perhaps because they are *toy-like*, providing a means to manipulate and play with digital representations, but lacking the complicated formal

structures of fictions and games. *Interactive visualisations* such as *Tori-Emaki* may also count as examples of strongly interactive visual entertainments that are not videogames (assuming of course that extensional intuitions count for something in this case). Ultimately, I think, the notion of strongly interactive entertainments extends beyond the category of videogames as it has traditionally been understood.

Second, it is not clear that all videogames (or at least computer games) really are strongly interactive. As a part of his distinction between strongly and weakly interactive works, Lopes calls attention to works in which the interactor merely traces a path through a predefined text (2001: 67-68). Hence for Lopes, many hypertexts are not strongly interactive because they merely involve the player jumbling up the order in which they experience the previously rendered parts of a work. This would also seem to be the case with extremely linear narrative videogames, or what Juul calls "games of progression" (2005: 71). Potential examples are the very early text-based adventure games such as *Colossal Cave Adventure*. In some of these cases, the player merely seems to traverse pre-rendered representational nodes, even if they may at first fail to find the winning path through the structure and a lot of their investigations lead them into dead ends. Arguably in some of these games the game states have been rendered in advance, awaiting mere *discovery* by the player. Note that Lopes' theory also implies that many aspects of videogames are merely weakly interactive: the narratives of videogames, in particular, are often only weakly interactive, even if the player-character is represented as a fictive protagonist, and even if they have some control over *when* in the course of game the narrative elements are depicted.

Perhaps then, though Lopes' notion of strong interaction is of genuine interest, and can genuinely be found in some key aspects of videogames, it cannot be used to unite the disjunctive aspects of my definition because strong interaction is not seen in all and only videogames. I suspect that there are further arguments to be made here.

But there is also an alternative conclusion to make, and this was the point of launching into this revaluation of my disjunctive definition. It now seems a possibility that we could construct a *new* explanatory class of *strongly interactive digital entertainments*, not quite identical with the class of videogames, but forming a class with a great deal of explanatory interest in virtue of referring to the idea of strong interaction. The notion of strong interaction may not be essential to *videogames*, but it can be used to refine a new more precise extension in the form of an explicative definition. This class may exclude videogames that are only weakly interactive, and it may include strongly interactive visualisations and applications, but in doing so it may refine a category allowing for a new explanatory approach.

Conclusion

I contend that disjunctive and explicative definitions both show that definitional practice has means to meet the challenges of cases where we doubt there may be any *essence* underlying a term of interest. They show that the complexity of categories, or even their lack of unity, is not a reason to forgo the definitional process, but is a motivation to refine the practice of definition so it is more applicable to the challenges it is likely to face given the facts of the domain in question. There is a general epistemology precept here: concepts do our bidding, and we are not their slaves. Perhaps, indeed, this claim is a point of disagreement between philosophers of an analytic persuasion, and those thinkers who contend that we are in the metaphysical thrall of concepts or of our language.

Does the conception of definition tendered here mean that it will not so much be a matter of *the* definition of videogaming, but the *definitions* of videogaming? If definitions are motivated by their analytic and explanatory potential, and sometimes formed by building, extending, or otherwise revising terms already in use to augment their potential in some investigation, this may in fact be the case.

But this means that even a successful definition may not arrive at some fact about what videogames "really" are, but at the conclusion that the term can be given an intensional specification formulated to account for a contingent history of usage, or formulated in terms of our explanatory interests. This fact by itself, I think, should serve to undermine some of the doubts that videogames can be defined.

Games

COLLOSAL CAVE ADVENTURE. William Crowther, 1976.
FALLOUT 3. Bethesda Softworks, PlayStation 3, 2008.
TORI-EMAKI. Sony Computer Entertainment, PlayStation 3, 2007.

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