On Playful Ignorance: the union of opposites in videogame epistemology

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Introduction

Brian Massumi considers videogames a prime example of an oppressive and reductive system of action when he writes of what he considers unsuccessful interactive installation art:

> *"That's what has happened when we hear the comment, all too common, from interactive art participants that the experience felt like a video game. You often feel there's a trick you need to find and master, and once you've done that, you lose interest because you've got the feel of it and know how it 'works'. […] I'm not saying that all interactive art does this. It's just that this is the trap that is automatically laid for it […] The problem is: [is] this doing something that mainstream informational capitalism isn't already doing, ever so profitably, by generalizing the gaming paradigm?"* (Massumi 2011: 46-47)

But is the 'gaming paradigm' fairly characterised as "know[ing] how it 'works'"? This paper argues that the epistemology of play specific to videogames differs crucially from Massumi's straw man. I will be describing this as an 'apophatic quality', primarily alluding to the via negativa of negative theology, as opposed to apophasis as a rhetorical device. This is the way of denial, of not knowing or more precisely, saying what we do not know about our playing. My claim is that this sense of 'not knowing' is fundamental to the experience of playing videogames. In saying this, I do not mean that players are philosophical sceptics like David Hume. This would be like suggesting that the pope is agnostic. Rather I am claiming that they act in good faith and happily accept their partial understanding of the game as a central feature of being a player of the game.

90 minutes of THIS??

We will illustrate this discussion through a case study of the award-winning co-operative crowd game *Renga*. Chelsea Howe wrote that the game's showing at IndieCade 2012 in Culver City, Los Angeles had "in a single hour, kicked the field of game design ahead by leaps and bounds" (Howe 2012). That year's festival ended with *Renga* winning the Developer's Choice award, and a number of informal articles were written singing its praises. New media artist Golan Levin described it as a "significant milestone" and game design theorist Eric Zimmerman called it "the birth of a new genre". However, much less well-known was the overheard reaction of an audience member in Toronto, repeated to wallFour via an eyewitness from the festival team:

> *"Just need to tell you I sat beside a couple, and the woman obviously just tagged along to be with her boyfriend—3 mins in was "90 minutes of THIS??". At the end—"That was awesome!!"* (unpublished e-mail Sep 2012)

Before we explore the significance of the exasperated reaction "THIS??", a little *Renga* background context is useful. John Sear and I created this game in 2011 as part of our two-man collaboration wallFour. John is another former triple-A developer and game design educator with one foot in academia. Both John and I have a long-standing personal interest in playing, reflecting on and creating games - though my inclination is more towards philosophical introspection and John's is more towards practical engineering! When the original idea of wallFour was conceived in 2010, there was a lot of excitement in the industry about so-called 'social games', meaning browser-based games launched from within Facebook that in some way connected with or leveraged the players' existing social network connections. Ironically these games are often asynchronous multiplayer and deliver very solitary resource-management experiences where a user's friends list is reduced to little more than a resource that they can employ to strategic advantage in the game (e.g. Farmville 2009).

John and I found the term 'social' applied to these games offensive, and kept saying to each other "we should make a *real* social game". Nostalgia about the 'good old days' before broadband-connected PCs and consoles, when videogame experiences were shared live with friends in each other's living rooms, led to wondering if it was possible to create a framework for live public videogaming, and what this might look like. Although this article sets up an opposition between traditional games and videogames, I should stress that John and I both particularly enjoy playing German-style board games as well as various other non-digital games. In one sense, the vision behind wallFour was to recreate the very convivial, accessible, live in-room social experience of playing a game like *Carcassonne* or *Puerto Rico* in digital form, but on a much larger scale for a public event audience of 20-100 attendees who didn't necessarily know each other. It's also worth noting that board games tend to last only 2-3 hours and wallFour also set out to make complete experiences that would fit into an evening, rather than taking up many tens or even hundreds of hours of players' time accumulated over weeks and months.

The primary technical inspiration for wallFour was Graffiti Research Lab's L.A.S.E.R. Tag system (2007). This offered live interaction with large-scale digital projections via computer vision tracking of a laser pointer when it is directed at a point within the bounds of the projected image. wallFour created their own much higher-fidelity version of this system supporting accurate low-latency tracking up to 100 laser pointers at 60 frames per second, and used this to build a software framework for producing single-screen crowd games. After experimenting with several smaller works for fewer participants and shorter experiences, *Renga* was originally produced for and premiered at the GameCity 2011 festival in Nottingham, UK. The aim was to support 100 players for over an hour of focused gameplay. As a live event running on proprietary hardware *Renga* was never 'released' as such, but the design stabilised by Spring 2012 around a running time of 65-70 minutes and *Renga* was toured extensively over the following 12 months, including shows at the Game Developers Conference in San Francisco, South By South West in Austin, the Toronto International Film

Festival (TIFF), New York Film Festival and Palo Alto International where it won the 'Best New Platform' award. The last public showing of any note was in February 2013 at the Museum of the Moving Image in New York at IndieCade East, although it has been screened privately since then for example to an audience of Disney Imagineers in the summer of 2014.

Playing without knowing

As has been a design commonplace in videogames since perhaps the late 90s, the first act of *Renga* employs an in-game tutorial, gradually introducing the various elements of the game in a sequence which builds up from the simplest components to a point where players must combine many different techniques simultaneously. In the more naturalistic style of triple-A games, the tutorial structure is typically diguised by coupling it to some narrative conceit such as recovery from amnesia, a return to duty, or a formal demonstration to superiors. This approach produces a sense of gameplay beginning *in media res*, with an immediate plunge into exploratory interactivity without any prior guidance.

[IMAGE : RENGA TITLE SCREEN]

Renga's pre-show time displays a simple title screen with scrolling starfield. During this time the audience enters the theatre (typically a cinema auditorium although various other venues have been used) and at some point (eg. as they walk in the door) each player is given a 1mW red laser pointer to hold at their seat for the duration of the show. Holding the pointer typically results in most players spontaneously pressing the solitary button on the side of the barrel, causing a spot of red laser light to appear, perhaps first on their hand or on the back of the seat in front of them. Pretty soon many of the lasers are being directed at title screen, and a dance of moving red spots begins on top of the projected image. The wallFour team at this point might be sitting discreetly at the back of the room or more likely are hidden away in a projection booth, alongside their custom hardware which they installed in the venue hours or days previously. The tracking system is already live and has been running since before any players entered the room, but this is not yet apparent. Eventually, after discussion with ushers, floor manager and perhaps a pre-show welcome speech on stage from their host, a button is pressed on a touchscreen in wallFour's booth, much as might happen at the lighting desk of a theatre production or live music gig. This event begins the show very subtly, by rendering a small particle effect at the position of each pointer. Suddenly, there is feedback. The players quickly begin to realise that their pointers can have an effect on the image. This demonstrates that the lasers are being tracked quite accurately, but the tracking has no purpose. An open loop. After a little more time, the house lights are lowered to near-darkness and again at a moment of wallFour's choosing, the game proper begins as the title slide suddenly disappears and is replaced by a giant ring with small filled grey circles evenly spaced around its perimeter, and radial lines converging from these circles to the centre of the ring. No on-stage host, no PA announcement, no in-game narrator, no on-screen text. Just a giant ring and a background starfield. The loop is closed and the audience are left alone to play.

[IMAGE : RENGA UNLOCK SCREENS]

Most audiences had no idea what to expect when they attended a *Renga* show. The game was not well-known and the only people who knew much about it were players of previous shows, of which there are probably only about 2000 in total worldwide. The game was often screened at film festivals alongside completely non-interactive content and in some cases, there were players who didn't even know that *Renga* was not a normal linear motion picture until they walked into the auditorium and were handed a laser pointer. As time went on and the bookings became more high-profile, many attendees knew in advance that *Renga* was some sort of collaborative interaction via laser pointers but that was all. So when the first ring appeared it almost always provoked the same intended effect - instant confusion and soon after that, experimentation. Pretty soon some would realise that the grey circles brightened slightly when a pointer was over them, and that there were roughly as many circles around the ring's perimeter as there were people in the audience. Typically within 10-20 seconds a significant portion of the audience would have 'spread out' around the perimeter forming a circular formation with their lasers. This resulted in immediate feedback and a sense of a short-term goal, as the radial lines began to shrink. This visual cue would then provoke others to follow suit and join the formation, creating a cascade that would result in the majority of the audience spontaneously self-organised into a regularly-spaced ring formation within the first minute of play. Soon the first 'unlock ring' was passed, and a short series of nested and rotating rings were advanced through, introducing some complications, reinforcing the sense of shared achievement and leading the audience to the beginning of the first act proper.

Not knowing the rules

Although *Renga* is a somewhat unusual videogame because it is also a live event and it only runs for just over an hour, many aspects of the player experience described above are typical of the early stages of playing a videogame. The immediacy, the kinetic aspects, the unspoken invitation to explore, the fusion of haptic and visual qualities, and the deliberately-provoked sense of mystery and intrigue of *not* knowing what to do. Traditional board games by contrast usually begin with a fairly lengthy period of *reading the rules* and the players discussing them before play commences. This discussion often serves to confirm whether all players agree on their level of understanding and interpretation of the rules. It is very difficult to begin playing a boardgame without a good grasp of the complete overall plan. What are the elements, what can they do, how does play proceed (eg. the structure of each round), and crucially - what is the overall objective? Granted, most boardgames have obscure rules that are often poorly understood by novice players, and many will be eager to 'get going' without reading the printed rulebook in full, perhaps after a brief summary of the rules from a more experienced player. But overall, there is a certain degree of knowledge required *just to begin* playing a traditional non-digital game, which we find largely absent in videogames.

Why is this? What is the epistemological demand that boardgames make which videogames lack? My claim is that it is primarily the *management of process* and game state. Board and card games must not only be played by their participants but also managed and operated by them. Very often there is no moderator. The responsibility for ensuring the rules are followed

is shared equally amongst the players, hence the pre-game checking that all agree on *knowing the rules*.

Indeed, in large part the printed rulebooks accompanying board games provide natural language descriptions of *algorithms* for the players to execute. The summary order of play is a *sequence* of steps to be performed. The various choices available to players must to some extent be enumerated before play commences, and so the rules describe *branches* in the execution of this algorithm. The repetition of sequences and sub-sequences (usually called rounds) constitute *loop* structures. Making these operations clear requires the rulebook to adopt a certain precision of language to remove ambiguity of interpretation. To this extent the rulebook actually moves outside of natural language and starts to resemble computer language pseudocode. Furthermore, the game *state* as well as its process must be clear and unambiguous in order to correctly apply the rules to the state, which of course is supported by the central concept of a board visible to all, where the various elements of game state are placed and publicly manipulated. This combination of finite state and precise rules for the updating of that state formally resembles a computer. Although domain-specific and probably not Turing-complete, the players are not only playing, they are also computing. We could say the board, the rules and the players function in concert to implement a special-purpose computer running a specific program.

Videogames by contrast can and usually do rely on a silicon-based computer to manage a highly complex state and process. The inner workings of this computer are not readily available to the players. There is alway a committed minority who reverse-engineer and hack their games in order to gain greater understanding and mastery of them, but this is an exception. The ordinary player does not *want* to know and does not *need* to know the formal rules of the game they are playing. The videogame world has secrets, it is esoteric. Admittedly, limited use of hidden state is common in board games, such as decks of shuffled cards whose order is not known until they are drawn. We can even point to the existence of hidden rules in board games, such as unique directions provided by previously-unread cards which must be followed when the card is read. But still these unknowns are situated within an overall operational framework that is clear and known to all players. This is not the case when a digital computer is running the show.

Knowing what to do

An objection might be raised at this point. Returning to Massumi's concern which opened the discussion, surely when he wrote "you know how it 'works'" (Massumi 2011: 46) Massumi was not in fact making a claim about knowledge of game *rules* at all, but was focusing on as he puts it "a trick you need to […] master". In other words, wasn't Massumi claiming that you know what to *do*? Yes, the 'rules' of the game might be unclear in a videogame whereas they are clear/explicit in a board game, but isn't the criticism that videogames make 'what you must do' all-too-clear? Furthermore, surely isn't what you must do in a deep and enduring boardgame like Chess far more *un*-clear and *un*-known than in a twitch-action videogame? Perhaps in Chess you have greater knowledge of *how* to move (game-

mechanically speaking) than how movement is governed and implemented in a complex 3D action-shooter, but isn't *where* to move far more open and undetermined in Chess than in Geometry Wars?

In this respect there is a common pattern in many videogames of short-term alternation back and forth between knowing and not-knowing what to do. Players are confronted with a situation where they do not know what to do (such as the extreme case of *Renga*'s opening unlock rings), provided with tools that allow them to do certain things (laser pointers that 'activate' targets on the ring's circumference), taught the implications of these tools through positive and negative reinforcement (radial lines that shrink when a certain proportion of targets are activated simultaneously), and invited to 'perform' the appropriate actions to advance past the situation (self-organise the majority of lasers into an evenly-distributed ring formation). Isn't this repeated drip-feed of satisfying little Eureka moments and gratifying rewards (such as witnessing an audiovisual spectacle or advancing through a narrative cutscene) exactly what Massumi finds distasteful and politically questionable about certain interactive art installations and videogames in general?

Not knowing what is being done

The previous objection is convincing, but misses something crucial provided by the videogame player's ignorance about game rules and the computer's maintenance of hidden state. We can concede that the short-term loop of puzzlement, learning and reward tends to produce a more tightly-determined and choreographed performance of certain actions by the player than do many classic board games (where 'what to do' is more open-ended). But consider the longer-term game structure. At least on the first playthrough of a videogame, the players have no knowledge of what comes *after* overcoming the short-term obstacle presented to them. What happens next is lying hidden in wait, determined by code and data stored by the computer and not known to the player. In one sense, 'anything' could happen next, because overcoming the current obstacle could trigger any kind of subsequent process that the game designers and programmers might have chosen. The immediate task might suddenly give way to something quite different. In other words, although the 'next actions' might be more intuitive, and are in a sense 'obvious' or clear (which is Massumi's concern), the 'project' the players are working towards is unclear. We could say the players have greater knowledge of what to do (right now), but considerably less knowledge of *what is being done*.

In this respect *Renga*'s fundamental gameplay mechanic of ring formations is a good illustration. As a fully collaborative game, it was important to ensure that it could not be played alone. The ring mechanic was inspired by a scene in the film *Superman III* (1983) where Richard Pryor's character is unable to turn two keys simultaneously. The opening unlock rings educate the players from the outset to think about using their lasers in circular group formations. This mechanic is then elaborated across the rest of the first act as something that can *itself* occur in multiple places on the screen at the same time. This results in multiple rings, often with disparate functions (some are enemies to destroy, some are

resources to unlock), each of which requires multiple participants to operate. Typically 4-8 players were required for each ring in an audience of 70-100 players, with perhaps a dozen rings on screen at once. But the rings also move around, some flying onto screen suddenly, others slowly drifting off the screen, some colliding with other objects and changing their trajectory. The result is a very complex set and shifting of potential projects for action, none of which can be accomplished by a lone player.

[IMAGE : RENGA DEFEND PHASE]

This means that players must continually reassess whether the ring they are 'working on' is also an active project for other players in the collective. If it is not, they must rapidly reassess their allegiance and reevaluate where best to deploy their laser. This is changing so rapidly and there are so many potential sites to make a contribution that the overall experience is one of pursuing very short-term goals within an overall project that slowly changes but is generally understood. There is often a realisation that what needs to be done has already changed, that other players are already doing something new and important, and a sense of 'catching up' locally to the latest developments. But all players are feeling this simultaneously. There is no 'master player' with greater knowledge who experiences themselves to be ahead of the curve. It is more like an expanding or shrinking balloon on whose surface every point experiences itself as a centre to/from which all others are moving towards/away. There is no central knowledge.

The union of opposites

It is this situating of short-range knowledge (I see what I must do) within long-range ignorance (I'm not sure where this is leading) that we can call an *apophatic* quality in videogames. Traditional games by contrast, situate short-range ignorance (I'm not sure what is the best next move) within long-range knowledge (I know my overall goal). In this respect we could say that board games present not-knowing as a practical limitation (if I was a more gifted player it would be more clear), whereas videogames offer not-knowing as a fundamental condition of the experience, to which players willingly submit.

So we can consider the player's relationship to the overall project of their actions in a game as a microcosm which mirrors self-world relations in general. In this sense the positive knowledge of the *whole project* of a traditional board game can be likened to an miniature adoption of a *cataphatic* attitude in theology. There are positive statements we can make about the total context of our actions. We can know the total purpose. Not only that but we can say it, we can describe in clear and unambiguous statements *what is to be done*. In encompassing the whole game with their human-all-to-human reason, board game players perform a miniature re-enactment of the boundless optimism (some would say arrogance) of the Western Enlightenment project. Videogame players, by contrast, experience their cognitive faculties as circumscribed within an unknowable whole. In this sense, we are claiming that the epistemology of videogames presents a revival of a pre-Enlightenment view

of the relationship between knowledge and ignorance. Rather than ignorance being a temporary horizon, ever-receding from the unfettered expansion of potentially infinite human reason and knowledge, here knowledge and ignorance are seen in relation as a *union of opposites*, intertwined in a living contradiction.

Playful ignorance

Augustine of Hippo introduced the term 'learned ignorance' in his 5th century writings:

> *"There is therefore in us a certain learned ignorance, so to speak […] For how is that which is desired set forth in language if it be unknown, for if it were utterly unknown it would not be desired; and on the other hand, if it were seen, it would not be desired nor sought for […]"* (Augustine of Hippo 412: 15:28)

This notion was developed at length by the 15th-century theologian, philosopher and Renaissance polymath Nicholas of Cusa in his text *De Docta Ignorantia* (Cusanus 1440). Employing the ancient motif of a coincidence or union of opposites, Cusanus describes the Absolute as 'incomprehensibly understandable' (Cusanus 1440: I.5.13) through mathematical analogies. For example, although maximum and minimum seem opposites when speaking of numerical quantity, maximum is *maximally* large and minimum is *maximally* small, hence if quantity is removed then these opposites are united as maximum (Cusanus 1440: I.4.11). A more complex analogy is Cusanus' discussions of measuring the circle by inscribing polygons within it. The circle's length is unattainable through this method, though we can approach its value indefinitely by adding more sides to the polygon:

> *"the more deeply we are instructed in this ignorance, the closer we approach to truth"* (Nicholas of Cusa 1440: I.3.10)

This seems remarkably analogous to the union and interplay in the playing of videogames between the rational attempt 'to game' by comprehending the rules and reasoning consciously over possible strategies. Through the wilful adoption of what we might call a 'playful ignorance', players know that they are playing a game while accepting that they are not in possession of the rules or even the goals. As such players embrace their necessarily partial understanding of the whole and surrender to a durational unfolding in which they must continually revise their measure of what they are playing at doing.

Videogame as ludic diagram

At this stage we can draw on Deleuze's discussion of 'the diagram' in his 1981 study of the painter Francis Bacon (Deleuze 2003). This notion reappears in several of Deleuze's texts but is never given a single stable definition. In *The Logic of Sensation* the diagram is described as a preparatory process of removing "figurative and probabilistic givens that occupy and preoccupy the canvas" (Deleuze 2003: 70). The diagram is a "violent chaos" but also a "germ

of rhythm in relation to the new order" (Deleuze 2003: 72). The possible relations between this chaos and emerging order is presented by Deleuze as a dilemma with two obvious outcomes. Crudely put, either the new order dominates and the chaos is suppressed (eg. the abstraction of late Mondrian), or the chaos is embraced and all attempts at establishing a new order are forgotten (eg. the action paintings of Jackson Pollock). Bacon is then presented as exemplifying a third way out of the "catastrophe" of the diagram, not as a simple mid-point between extremes but more as a union of opposites:

> *"Roughly speaking, the law of the diagram, according to Bacon, is this: one starts with a figurative form, a diagram intervenes and scrambles it, and a form of completely different nature emerges from the diagram, which is called the Figure."* (Deleuze 2003: 109)

Roger Caillois' influential discussion of his four "game rubrics" *agon*, *alea*, *ilinx* and *mimicry* (Caillois 2001) also pictures particular realisations of these categories as situated against a common axis. All varieties of playful activities are described as ranging in spirit from the "uncontrolled fantasy" of *paidia* to the "tedious conventions" of *ludus*. For this discussion we can fruitfully consider these two poles, which Caillois points out are "not categories of play but ways of playing" (Caillois 2001:53), as modes of apprehending rules as present or absent. As such, the mode of playful ignorance described above is *neither* one of free play and a known absence of rules, nor one of agreed mutually-agreed conventions and a total grasp or knowledge of the rules. Instead the player knows that there are rules and goals, but that these facts necessarily lie outside of their grasp, and any current understanding the player might have of their ludic project is known to be provisional. In this way the videogame could be said to repeatedly construct 'ludic diagrams' which disrupt the existing 'figurations' (previously known rules and goals), and invite the player to form new 'Figures' in response (new understandings of rules and goals). Through the autonomous and occulted process of computer code, these ludic diagrams assault the player as an involuntary catastrophe of their attempts to know what they are doing. The player is prevented from retreating into either a completely free play 'sandbox' under the mode of *paidia* (by the promise of unknown goals yet to be revealed) or a stable boardgame-like understanding of the total project under the mode of *ludus* (by unexpectedly altering or removing previous understandings of the game). They are forced down Bacon's "third path" (Deleuze 2003: 77).

A rather literal diagram appears in *Renga*, in the form of a space of specified objectives which the players must capture and integrate into their 'ship' by building walls. This 'build phase' activity occurs in a loop that alternates with the 'defend phase', where wall-buidling resources must be collected while fending off enemies. Although the build objectives are static (four launch engines required to progress to the finale, and a number of optional extra features), the players' collective movement towards these goals is erratic. The build phase itself has two major subphases, alternating between choosing where to zoom in while looking at the complete set of objectives, and a short time-limited construction phase while zoomed in to a particular region of the ship.

[IMAGE : RENGA BUILD PHASE]

This alternation brings out tensions within the audience over where to build next. Each zoom phase inspires impassioned arguments, the audience shouting and screaming at each other as the players divide into factions visible on screen as massed swarms of lasers 'voting' for different zoom regions. But this is immediately followed by a construction phase in which everyone has to work together by spreading out over a fine grid of separate wall-block positions and holding their lasers very steady for a few seconds in order to trigger construction at that each precise location. One participant (at SXSW in Austin) remarked that they found this rapid alternation between discord and harmony the most interesting feature of the game. The result is a ship layout or 'Figure' unique to each audience, reflecting a history of collective decisions. However, the ship-as-diagram is also scrubbed back to pre-figuration after catastrophic defence phases, by the collision of enemies destroying previously placed walls which the players must then quickly rebuild. Except that when they start to rebuild, it can turn out differently, perhaps even totally abandoning previous optional objectives within the ship architecture. Thus by the time the endgame finale is triggered, the ship is both a monument and a ruin, an achieved goal and a memory of past failures and disagreements.

Acting provisionally

Of course, the distinction between videogames and boardgames driving this paper is far too neat. We could easily point to straight reimplementations of boardgames on computers (e.g. *Carcassonne* for XBox Live) or the more generally the continued existence of turn-based designs (most famously the *Civilisation* series). There are many videogames which do not alter the player's overall task or predicament in any significant ways during the course of the game (e.g. the only major unknown in *Tetris* is the type of piece coming after the next). It does not really make sense to treat videogames as a monolithic phenomenon[1] with a supposedly fixed presence of apophasis, of provisional and unstable tasks, and of so-called ludic diagrams.

But this does not mean we must *narrow* the scope of points raised above about continuous, visceral durational time (Massumi's 'lived relation') to just fast-paced real-time action videogames with chapter-like heterogeneous structures, providing shifting affordances toward obscure goals. Instead we can *broaden* the points made to include turn-based games. The distinctions here put forward are not claims regarding the ontology of the *games* themselves, but about varieties of subjectivity through which they are *played*.

This repositioning of the argument draws upon Daniel Vella's concept of the 'ludic muse'. Vella (2015) built upon Jean-Luc Nancy's characterisation of the work of art as a bringing-forth of experiencing the world as a particular kind of subject. Through contemplating a painting we experience not just the painting as a material object but our own *seeing* of the painting. By listening to music we experience not just the sound but our own *listening* to the music. Vella argues then that games provide us with an experience of ourselves as an *acting*

[1] My thanks to one of the reviewers of this paper's proposed abstract for this point which inspired the following clarification.

subject, and support contemplation of our own subjectivity as "active beings […] acting on things in the light of our purposes".

In the light of Vella's discussion, we could perhaps go so far as to say that certain games naturally invite/incite an experience of certain varieties of our own subjectivity as active beings. Some games present the player to themselves an 'Enlightenment subject', who has firm knowledge of the overall project and deploys analytic reason in the pursuit of well-defined purposes. Conversely, certain games present the player to themselves as a dancer to rhythms which are not their own, moving partially within an unknown whole. Videogames can occupy either variety, as can boardgames. The difference is only that videogames more naturally support this second variety of experiencing our acting as provisional, through their ease of presenting a continuous, durational experience of *motion*.

Shifting fields of purpose

Videogames were certainly not the first games to inspire an awareness of shifting and temporary affordances and even purposes. If we look at any sufficiently complex game, especially one with multiple human players, there is a practical necessity in considering *sub*-projects and working towards short-term goals which may change. Even the greatest of grandmaster Chess players must act provisionally, and may have to revise their assessment of what they are doing and why. Also time is still passing continuously for the player of any game, even if the game proceeds in discrete well-defined steps initiated by its players. The players of a poker game know this very well, where the tension of their consideration of what to do next is continuously affecting the assessment of other players as to what cards they might be holding, and their own sense of what other players think they have is in turn affecting the meaning of a possible next move. The loop of awareness and reflection is continuous, even if the game is not.

But the game loop running on a computer can simulate and manage far more activity than just that apparent to the players. Real-time simulation with complex state managed by a computer provides a fluid situation without needing the complexity of multiple players' relations and attempts to understand each others' current intentions. The game itself provides shifting complexity even for solo players, or in the case of *Renga* for a mass of players experiencing themselves acting as one unity of purpose. Interestingly, this could be said just as easily of *physical* games such as sports or ball games as opposed to the more abstract operations of board or card games. Here instead of a powerful computer the fluid complexity is provided by physical law and the complexity of unstable physical situations. This is what Massumi calls the 'field', in debt to Merleau-Ponty, when he writes:

> *"The ball arrays the teams around itself. Where and how it bounces differentially potentializes and depotentializes the entire field, intensifying and deintensifying the extertions of the players and the movements of the team. […] the subject of the play is the displacements of the ball and the continual modifications of the field of potential those displacements effect. […] When the ball moves, the whole*

> *game moves with it. Its displacement is more than a local movement: it is a global event."* (Massumi 2002: 73-74)

As such both physical sports and videogames more readily provide their players with an experience of limited agency within an active field, although we could also have this experience within a boardgame. But videogames can provide far more *hidden* process than a physical game. As discussed previously, not only is the field shifting, but in a videogame the goalposts and even the rules are in motion, and some of the motion is invisible.

Performing playful ignorance

During the early development of *Renga* there were many gameplay parameters that needed tweaking, and events whose precise timing was hard to determine. This resulted in the construction of an elaborate system for real-time *moderation* of the game by John and Adam via several devices including a mobile phone, a tablet and one or sometimes two laptops simultaneously. Over time wallFour came to think of this 'backstage' system as not a temporary measure to be removed later when the game was 'balanced' or 'finished', but as a central aspect of the game as a performed live event. The robotic narrator voice goading the audience was actually live text-to-speech from a human 'Game Jockey' or GJ, but audience-realisation of this fact was deliberately held back until the second half of the show. There were many other aspects of the GJ'ing which wallFour went to great lengths to hide permanently, especially the invariant of the dramatic structure and the fact that the timing was so carefully regulated. In keeping with Vella (2015), players were given a carefully constructed *experience of* their own collective agency as powerful, coherent and successful:

> *"We hear about mob mentality and think humans fall apart and disintegrate in large numbers. We think they become thoughtless, angry, stupid. But here, without a leader, without any chance to form strategy, without any plan or pretense, over a hundred people not only worked together, but got better. The same way an individual's skill improved, this collective's ability visibly, markedly increased over time. It wasn't chaos, it wasn't stupid, it wasn't random. It was beautiful."* (Howe 2012)

But this experience was very carefully constructed and managed. Some audiences were genuinely more organised and effective than others. Some were incredibly fractious and disorganised. But every show delivered the same experience of gradual overcoming of obstacles through distribution of responsibility across a self-organised collective. It was not just the players who were performing, wallFour were there as well, making sure that the audience experienced playful ignorance as leading to a satisfying outcome.

Conclusion

My interest in Nicholas of Cusa and really the whole concept for this paper was sparked by NYU's Emeritus Professor of the history and literature of religion James Carse, when he cited

Cusanus in a recent interview saying "Higher ignorance is one of the great philosophical concepts" (Carse 2008). His *Finite and Infinite Games* (Carse 1987) is occasionally cited on the fringes of contemporary games studies, and was described by Bernie De Koven as "a complement to and extension of what I hoped people would find in *The Well-Played Game"* (De Koven 2005). As it happens, I discovered in preparing the draft of this paper that Chelsea Howe had also cited Carse in her extended reflection on the significance of *Renga* at IndieCade 2015, three years after the original Culver City performance. On the same slide she went on to say that *Renga*:

> *"felt infinite, in that every one of us, laser-handed or not, was trying to keep the game going […] So that the living, breathing organism we created together could keep living. We wanted to play. We wanted to be at play."* (Howe 2015)

Like De Koven, I see games as a microcosm within which to explore and experience different structures of being-in-the-world (Leino 2009; Vella 2015). As such I share the concerns of other authors that there are certain tropes found in videogames which can aid in the exploitation of undesirable subjectivities. For many critics of gamification (Robertson 2010) the problem is the reliance on highly explicit goals which are extrinsic to the movement of play itself. For Massumi in our opening quote from *Semblance and Event*, the problem is more subtle. It is the reliance on intrinsic movements of play which are too obvious, too knowable. But I think that videogame games can and often do present an experience of a current moment that is situated within a flow from reinterpretable past to undetermined future, a moment that offers temporary shifting affordances towards an obscure goal. I think it was because *Renga* provided this in combination with an experience of collective action and distributed agency that it evoked a spiritual quality for some of its participants. This seems the very principle Carse diagnoses as lying at the root of all true religion. Does this mean that *Renga* is an example of Kirkpatrick's 'ludefaction' (2015), through in this case a fracking of the *religious* imagination? I won't attempt to argue one way or the other here, but for me personally it has an ongoing resonance which I continue to pursue in other forms.

Games

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CARCASSONNE. Sierra Online, XBox 360, 2007.
CIVILISATION series. Firaxis Games, PC, 1991-2016.
FARMVILLE. Zynga, Facebook, 2009.
GEOMETRY WARS: RETRO EVOLVED. Bizarre Creations, XBox, 2005.
L.A.S.E.R. TAG. Graffiti Research Lab, PC, 2007.
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