Game Movement as Enactive Focalization

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Abstract

This paper integrates thought on game narrative and embodied cognition, in order to consider the significance of movement to the embodied narrative experience of games.. If games are a mode of 'environmental storytelling', determining the player's mobile situatedness within the gamespace is of crucial importance. The metaphor of game design as narrative architecture should be expanded to include the the design of movement dynamics, alongside geographical gamespace. I suggest a theoretical infrastructure that aims to enable further analysis of movement design's role in this scope.

Mieke Bal's concept of focalization (1997) broaches narrative perspective by underscoring the constant "movement of the look". For enactive perception, such mobility should be understood as inseparable from the movement of the body even when perspective could appear detached from embodiment. Therefore, I offer the supplementary concept of "enactive focalization" – narrative perception as interpreted through the interconnected dynamics or perspectival and physical movement.

To exemplify my ideas and the potential of future research in this scope, I discuss the uniquely effective and affective movement dynamic design of *Journey.* This paper concludes by reflecting on enactive focalization in light of the increased utilization of embodiment in the contemporary digital media landscape.

Keywords

Embodied cognition; Enactive perception; Focalization; Movement design; Movement dynamics; Interactive narrative; Environmental storytelling

Introduction

Journey (Thatgamecompany, 2012) is one of the most critically acclaimed adventure games of all time, partially due to its success at weaving a powerful narrative experience. Journey puts the player in the robes of a nameless figure traveling in a vast desert towards a snowy mountain peak, while encountering runes describing the rise and fall of a once-mighty civilization whose trajectory mirrors the player-character's. After much struggle, the player reaches the peak to find herself undergoing a sort of spiritual reincarnation.

The game's IGN review states that "*Journey* tells a special story […] with grace and subtlety rarely employed in video games" (Clements, 2012). However, I would argue that the above plot is far from exceedingly special in-and-of-itself. The truly unique thing about *Journey* is the storytelling – not the end goal, or the finalized narrative fabula, but the process of travel towards it. While *Journey's* appropriation of mythological and cinematic narrative patterns is elegantly clean and minimalistic for a game, its most notable innovation is the strong sense of harmony it forges between space, movement and narrative. The narrative becomes meaningful because it is told through the interactive experience of traveling through a world in which every step, jump or turn is ingrained with a sense of abstract, kinaesthetic significance. *Journey's* narrative experience excels at channelling affectivity and embodiment, and should be credited first and foremost, as this paper will eventually turn to argue further, to the unique design of movement dynamics through which the traveling occurs.

The importance of movement to the experience of digital game narratives is often mentioned in passing, but has relatively seldom been at the focus of past scholarly work, perhaps because it seems like too trivial a topic. However, from the perspective of contemporary embodied cognition (EC) theories

In particular, the framework of EC urges narratological theories to consider the active role performed by movement dynamics and environmental situatedness, in the sort of narrative sense-making that would have once been considered the sole, interior domain of lingual cognition. I shall propose to view movement dynamics as a mode of 'focalization' – a concept that, in Mieke Bal's narratological theory, essentially describes the fluid interpretation of perception through "the movement of the look" (Bal, 2002, p. 39). Integrating Bal's concept with insight from Alva Noë's theory of enactive perception, this paper suggests to analyze game movement dynamics a mode of 'enactive focalization'.

If the understanding of games' 'environmental storytelling' is expanded to include focalization through movement, the intricate ways by which player spatial experience produces a sense of narrative should be easier to account for. In close connection to this point, the design of a game's

movement dynamics should be studied alongside the design of its spatial geography, as 'enactive focalization' manifests both. This paper will exemplify the potential of such integrated study by further analysis of *Journey*. I conclude by considering enactive focalization and movement design in the scope of the increased utilization of embodiment in the contemporary digital media landscape.

Embodied cognition

Embodied cognition is a blanket term for a growing interdisciplinary body of scholarly work, drawing from phenomenology, cognitive science, perceptual psychology and studies of movement, dance and corporeal experience (Shapiro, 2010). Broadly and succinctly , EC asserts that embodiment constitutes a fundamental and inseparable part in the human cognitive capacity for perception and thought.

EC is increasingly being utilized for analysis of spectatorial art-forms. For example, Kravanga (2015) and D'aolia (2012) apply EC to cinema – strongly relating it, in both cases, to narrative comprehension. Bleeker & Isis apply enactive perception to argue for the 'enactive spectatorship' of performance art (2014). EC has also been applied to the study of tangible digital interfaces, by both Black et al. (2012) and Kirsh (2013). Though interactive digital games appear more fitting for analysis through enactive perception than spectatorial media, past scholarly work has yet to focus on this connection. Gee (2008, pp. 253-257) seems like the sole exception, but does little to broach either movement or narrative. My aim is to theorize and expand upon this connection, into a framework that would seek to utilize it for theoretical account of the interactive experience of gameplay .This paper addresses EC primarily through Alva Noë's theory of enactive perception, which underscores an environmental understanding of consciousness and the fundamental importance of movement.

Noë's central assertion is that "all perception […] is intrinsically active. Perceptual experience acquires content thanks to the perceiver's skilful activity" (Noë, 2004, p. 3), and that "the world makes itself available to the perceiver through physical movement and interaction" (ibid, p. 1). Perception is immanently deployed within "a network of sensorimotor contingencies" (p. 112), and manifests through contextualization by sensorimotor knowledge gained through embodied interactions with such contingencies. Therefore, "to perceive you must be in possession of sensorimotor bodily skill" (p. 11). In this sense, there could never be a fully passive, or inert, perceiver (p. 13). On the flipside, there is no such thing as 'raw' or unfiltered perception (pp. 115-117) – perception channels the environment we inhabit, and requires a situated understanding gained by acting within it in order to make any sense to us.

Noë cites the condition of experiential blindness – people with access to visual sensation (often after being surgically cured from blindness), who

nonetheless cannot functionally see, or properly process visual data, as result of a deficiency in applying "implicit practical knowledge of the ways movement gives rise to changes in stimulation" (Noë, 2004, p. 8). From this, he asserts that without mediation by internalized understanding of how bodily movement and orientation interact with visual data, how the appearance of environment should be expected to change as we move our eyes, heads and bodies within it, our vision is effectively blind. Vision functions by allowing us to experience and navigate spatial relationalities through implicitly understanding the amount and quality of movement that would bring an object we perceive into contact (Noë, p. 97). In this sense, all objects of sight are experienced as action affordances (Noë, p. 106), all perception is somewhat inherently touch-like, and "touch acquires content through movement" (p. 97). I will use the term movement dynamics as shorthand for this intricate notion of perceptual, environmental understanding as implicitly and explicitly facilitated through movement.

Infants gradually learn and internalize the motor skills and patterns of causality required to successfully navigate in worldly contingencies - such as the vast intricacies one's body must master to be able to walk straight, and also know when and how to walk differently when moving uphill or down a staircase. As this kinaesthetic learning process progresses, perception is reorganized to focus on the environmental stimuli that mattered most, the elements and shifts we come to know as meaningful for telling us how to best interact. This accumulated understanding allows us to sort out the immense amount of sensory information into what we would consider a developed perceptual experience. Noë therefore considers experience "a mode of skilful encounter" (Noë, p. 208). Conscious, conceptual thought is well understood to develop from cognitive perceptual experience. If such experience is more of an active encounter than an internal representation, consciousness does not exist only in our brains, but rather partially outside ourselves. Consciousness, of course, is a cognitive phenomenon, but having a brain is not sufficient to achieve it in-and-of-itself: thought is always anchored by our presence within material world, in addition to our cognitive mechanism that facilitates it. Like perception, thought manifests directly on the level of matter, and through our sub-personal capacities to interact with it (Noë, pp. 116-117). This is how Noë comes to conclude that "consciousness is enacted by what we do with our bodies" (p. 31).

Since thought and experience are continuous (p. 118), conceptual thought developed from embodiment comes to blend into future embodied experiences. Developed perception is thus framed not only by sensorimotor knowledge, but also by conceptual knowledge (pp. 115-117). At this point, "the experience, and the conceptualizing, are one and the same activity: neither is logically nor conceptually prior" (p. 194). In an intricate structure, facilitated by the contestant through

movement, continues to frame our capacity for thought, but also come full circle to become inherently thoughtful themselves (pp. 181-209).

This last conclusion is of much interest to me, as it forms an inseparable two-way connection between movement and thought, or sensorimotor and conceptual knowledge, in their negotiation of lived environment. While not addressed in Noë's enactive perception, the concept of narrative has been suggested as thought's immanently privileged form of negotiating and mediating lived environment, by many other contemporary scholarly works on phenomenology, hermeneutics and cognition (see below). Speculating narrative's place within this framework should enable closer consideration of movement dynamics' role in the narrative experience of games.

Interactive narrative and enactive perception

Hartmut Koenitz traces the development of academic studies of interactive digital narrative studies, and calls for further development of a narrative theory for interactive digital works (Koenitz 2015, pp. 91-96). Interactive narratives strongly differ from classical narratives (such as novels), primality by branching their paths beyond a singular linear structure and being constituted by the player's actions and choices in interaction with the game system. Koenitz asserts that the definition of narrative should be expanded in order to accommodate the sort of narrative experience instantiated by the process of gameplay. As I will argue, the expanded, cognitively or phenomenologically informed re-definitions of narrative that befit the study of games, are also potentially symbiotic with enactive perception.

Koenitz suggests David Herman's definition of narrative as "forgiving, flexible cognitive frame for constructing, communicating, and reconstructing mentally projected worlds" (Herman, 2002, p. 49) as appropriate for his goal. While Herman's writing does not focus on such embodied perspective, he broaches the topic by citing Fludernik's experiential view of narrative, according to which "unless a text or a discourse registers the pressure of events on embodied human […] consciousness, then that text or discourse will not be construed by interpreters as a full-fledged narrative" (in Herman, 2007, p. 256). Mentally constructed worlds that fail to affectively relate to embodied experience cannot fully function as narratives. Herman supports this claim, but also asserts a converse, complementary opposite point: "we cannot even have a notion of the felt quality of experience without narrative" (ibid, p. 257). This notion broadly coheres with Noë's structure, where fully developed experience requires integration of embodiment and thought, simultaneously filtered through each other.

Richard Menary proposes a somewhat similar view that takes the concept of narrative explicitly into the realms of embodied cognition. He argues that the conscious self "anchors narratives in the unfolding sequence of embodied and embedded perceptions" (Menary, 2008, p.

76), and conversely, "embodied experiences have a pre-narrative structure that lends itself to narration" (p. 64). In short, embodied experiences are not always consciously accompanied by narrative interpretation, but they are the basis all narrative emerges from. To this I would add that developed experienced is also implicitly 'post-narrative': it is configured by internalized and trivialized knowledge and action patterns, that have been shaped in relation to narrative framing. Contemporary Western subjects do not consciously reflect on their life stories and socio-political narratives while performing their morning routines in order to go to work, yet this automatic, internalized sequence of actions is prefigured by both. The automatized embodied function is synched to an implicit understanding of 'where am I going, and why', and would be experienced differently had society held a different notion of work and productivity. Routine actions and perceptions shape, and are shaped by, the narratives that guide our lives.

Such insight contextualizes the emergence of narrative from what Paul Ricoeur terms "the interconnectedness of life" (1991, p. 77), the inseparability of the self 's abstract identity narratives and embodied existence. Enactive perception's main contribution to such perspective of narrative would be to stress that embodiment's role in this equation occurs not just through an existing, or sensing body, but through an (inter)active, moving body.

In Time and Narrative (1988), Ricoeur suggests that narrative is essentially the mental media that temporalizes space – tying together existence in a constant present with a continuous timeline of events that negotiate change and permanence. Michael Nitsche's writing on digital space ascribes movement with essentially the same role (in affinity with the writings of Bergson): movement is what makes "time emerge from the experience of space" (Nitsche, 2007, p. 145). Experiencing movement provides a clear and direct sense of continuous time-flow between one present moment of being in space and the next. We can only tangibly imagine temporality by thinking of movement. As partial evidence for this, "linguists have long noticed the parallels between the way we describe and think about bodily movements and temporal change" (ibid).

This parallel view of movement and narrative's temporal function perfectly fits within Noë's broader framework of embodiment and thought. To speculate a definition in enactive perception's scope: If movement is the primordial, material form of temporalizing spatial experience, narrative is the conceptual form that emerges from it. Sensorimotor knowledge imbues perception with an implicit understanding of tangible causalities – what Jenkins would call 'micronarratives' (2003, p. 124) or kinaesthetic local action sequence. Conceptual narrative thought is required to link micronarratives on a longer timeline, and mentally interpret the connection between

sequences of localized events and its significance. However, out skilful movements also develop to in turn internalize mentally constructed narratives. As enactive perception asserts regarding sensorimotor and conceptual knowledge (Noë, 2004, pp. 31-32), while movement narratives are more primordial, there is ultimately no sharp line or border to clearly distinguish them from the mental narratives that develop to interweave with them.

I view this framework as promising, but all-too-abstract. Primarily, it lacks a functional concept to allow application of the of all these tangible and conceptual movement dynamics to the analysis of specific experiences, media and narratives. Most narratological theory addresses novels and texts, and does not consider movement and embodied experience in a very close scope. There is, however, an important narratological concept already defined through movement: focalization, or the framing of narrative vision, as conceptualized by Mieke Bal (1997) in opposition to the original understanding of the term. I suggest an appropriation of Bal's concept, meant to facilitate application of movement dynamics to narrative perception.

Focalization as movement

The narratological concept of 'focalization' was coined by Gérard Genette (1983, pp. 189-198), to describe "who sees" as opposed to "who speaks" (narration of thoughts or dialogue). Focalization aims to recognize potential modes of interplay between the viewed and the viewer. In other words, what sort of 'eyes' is the storyworld narrated to the reader through at a given moment? Gennette categorizes visual perspective in terms of spatial distance, and alongside the filtering of knowledge by subjective consciousness. He suggests a typology of three basic types of focalization: 'internal focalization'(knowing as much as the character), 'external focalization' (following a character from the outside and knowing less than it), and 'zero focalization' (knowing more than the character).

Bal's Introduction to the Theory of Narrative re-conceptualizes focalization in a more fluid and integrative framework. Broaching narratology from the interdisciplinary and critical perspective of cultural studies, she attempts to form a broad model of narrative that is applicable to visual, in addition to textual, media forms. Her theoretical framework mobilizes focalization beyond typologies and structuralist divisions, and particularly beyond an understanding of vision through the subject-object dichotomy.

Bal's point of departure is presuming that events "are always presented from within a certain 'vision'" (1997, p. 142). Vision, inherently, is also an interpretation (ibid) – as Noë similarly maintains, "experience always presents the world as being some way to one" (p. 116). Bal defines focalization is as "the relation between the vision and that which is 'seen': perceived" (ibid) – in other words, the way the visual field

constitutes a certain perception of what is viewed. Focalization should allow us to think what constitutes visual interpretation beyond the question of 'who looks', as a complex framework of corporeal and socio-political forces.

Despite the substantial differences in their disciplinary framework, both Bal and Noë assert that perceptual experience is always constituted through involvement in an intricate, environmental system, and should not be understood as occurring exclusively within the interior domain of the perceiving subject. Visual perspective is immanently involved with what is being perceived according to this framework. Concepts such as objective point-of-view, passive representation and zero focalization are therefore all invalidated by it. Even if a story is told from a bird's-eye view, we must still understand focalization as situated presence within the storyworld, at least implicitly. This narrative situatedness emerges from that of embodied experience: "perception […] is a psychosomatic process, strongly dependent on the position of the perceiving body" (Bal, p. 142).

In Bal's framework, Gennete's focalization – the agent, or agents, to which we ascribe a perceptual perspective in the storyworld - becomes the focalizer. While the positioning of focalizer(s) can be on a scale between internal and external, narrative focalization as a whole should take additional factors that shape and filter perception into account. Like attention and interpretation in lived experience, focalization is always the result of a multitude of dynamic forces, relating not only to the viewer but also to the viewed: "Focalization is the relationship between the 'vision,' the agent that sees, and that which is seen" (148). In later writing, Bal further empathizes the dynamism of focalization, leading to a re-definition: "(focalization) now indicates neither a location of the gaze on the picture-plane, nor a subject of it, such as either the figure or the viewer. Instead, what becomes visible is the movement of the look" (Bal 2002, p. 39, emphasis mine).

It should be noted that the crux of Bal's analysis of the mobility of focalization is only secondarily and implicitly related to the physical experience of movement and the material forces that constitute it. Bal primarily addresses how the cultural landscape deeply influences movement dynamics in a plenitude of ways, taking the environmental, primordial source of this landscape mostly as granted. However, Bal's definition of narrative focalization as movement is not strictly metaphorical – at its most fundamental, focalization emerges from the material body's mobile situatedness in space. Focalization, I therefore argue, could be understood as an enactive modality of perception.

The assertion that a sense of active, embodied mobility constitutes the way in which perception interpreters environment is shared by both Bal and Noë, and can be analyzed more fully when taking their ideas in tandem. Noë greatly expands upon the environmental and corporeal

framework that fundamentally links vision and movement together. Bal focuses on the resulting interpretation, and asks how perception is mediated by narrative works, how it also leads into certain understandings of narrative.

I therefore suggest a recalibrated understanding of 'enactive focalization' (EF), fusing Bal's concept with Noë's foundational theory. Enactive focalization describes how perception is calibrated and interpreted through movement dynamics, alongside narrative thought: EF urges us to consider the way in which whatever is brought to the fore of conscious perceptual experience at a given moment, is implicitly and explicitly interpreted by this intertwined framework.

Enactive focalization in games

Though Bal has never analyzed digital interactive media, appropriating her transmedial narratological concept to games seems highly warranted: in games, we do not only spectate the depicted world, but also move around and interact within it. Games function by forming a feedback-loop between the player's real movements (however minimal, such as pressing keys) and their reflection in the gamespace. If narrative perception always implicitly manifests mobile situatedness within environment, explicit interaction through movement should highlight this dimension.

By their very nature, digital games redesign the dynamics of embodied movement. David Kirsch argues that technological tools alter and expand our sense of embodiment and the visual sphere, and thus "reshape our 'enactive landscape'" (2013, p. 8). In digital games, the integrated design of spatial architecture and movement dynamics essentially form new, or parallel, 'enactive environment'. Narrative framing of gameplay is, broadly speaking, evoked by performing movements within a 'whole new world', making games a promising object for enactive analysis.

I turn to discuss past writing on focalization in games, which has mostly applied Gennete's framework, in order to speculate what enactive analysis might contribute and entail.

When appropriated to the analysis of games, Gennete's concept of focalization can facilitate the argument that visual portrayal of game-events can be considered a mode of storytelling, and that the player's point-of-view on the gamespace carries narrative implication. It is no surprise, then, that a body of academic work on focalization in games accumulated over the last decade, including Cajella & Langgaardsvej (2009) and Arjojanta (2015). Michael Nietsche (2005) provides what appears to be the only past analysis of focalization in games that seeks to appropriate Bal's framework. However, his analysis in focused on perspectival camera movement, and broaches the physical dynamics of movement within the gamespace only implicitly.

Britta Nietzel's 'Levels of Play and Narration' (2005), proposes a developed structuralist adaptation of Genette's framework to games. Nietzel appropriately replaces Gennete's concept of narration ('who speaks'?) – whose function in games is often secondary - with action ('who acts'?), and proposes a typology of games' 'point-of-action' in addition to point-of-view. Nietzel also ascribes a central narrative role to movement: like speech acts in relation to language, she argues, movement in gamesapce is an actualization of the system's range of potentiality for plot-formulation. Nietzel concludes that "metaphorically speaking, then, computer games use movements to tell stories" (p. 55). This role, however, is categorized under the 'level' of narrative discourse, and thus separated from the level of 'narrative situations' determined by 'point-of-view' and 'point-of-action'. Thon attempts to supplement this view with the additional concept of 'point-of-evaluation', which roughly relates to perspective as filtered through the subjectivity game characters (2009, pp. 291-297).

Adaptations of Gennete's focalization to game narratives can excel at analyzing 'internal focalization'- first-person-perspective games where the 'points' of view, action, and evaluation are all the same point. 'Camera' movement in such games directly represents the movement of a single embodied subjectivity, making the connectivities between action and perception more explicit in accounting for either. A fitting example can be found in Fraser's reading of *Mirror's Edge* (EA Dice, 2008) (2015, pp. 5-12): The player is cast as a parkour artist, whose perception of urban environment is (literally) highlighted by possibilities for acrobatic manoeuvres. However, in games where the point-of-view and 'point-of-action' are not fully congruent, particularly in instances of so-called 'zero focalization', systems such as Brietzel's would be inclined to assume a disconnect between movement and visual perspective.

Consider the campaign mode of RTS classic *Warcarft III* (Blizzard Entertainment, 2002), for example. The gameplay would be categorized as 'zero focalization', as it applies a bird's eye perspective and allows the player to control a plenitude of units and structures. But in actuality, every level is focalized as the story of the hero character. The narrative framing, design of the hero's movement, and ludic affordances that makes him the most important unit to micro-manage, all function together to make the hero's mobile situatedness matter most to the player's perception of gameplay. At any given moment, though, the player may be focused on some wholly other unit, or on a multiplicity of factors. We might say that the hero character carries the strongest 'gravitational pull', within a broader, fluid environment of focalizing gravity. An overarching categorical definition could therefore never be sufficiently nuanced.

Perception is not interpreted from a single 'point', but rather through dynamic trajectories of what Noë might term environmental consciousness. Various elements and degrees of 'gravitational pull' in

the perceptual field emerge through the interplay of in-game-movement, action and narrative. Beyond the mobility of camera perspective, such environmental elements must be considered in order to more fully account for how perception is focalized.

Environmental analysis is already a central domain in the study of game narratives. In the next part, I argue that enactive focalization could compliment such studies by highlighting the narrative functionalities of game movement.

Movement dynamics design and environmental storytelling

Henry Jenkins considers game narrative as a form of 'environmental storytelling' (Jenkins, 2003, p. 124), evoked by exploration of the game world. He suggests to understand games "less as stories than as spaces ripe with narrative possibility" (Jenkins, 2003, p. 119). This position is highly akin to Menary's aforementioned view embodied experience, and seems to form a fitting point of departure to analyze game narrative from. Alongside the works of other scholarly pilgrims of game narrative, such as Janet Murray and Marie-Laure Ryan, who similarly empathize digital spatiality as the key enabler of interactive narrative experience, this has led into a growing body of works that utilize concepts such as 'environmental storytelling' to analyze game narrative through spatial design.

Inevitably, analysis of narratives emerging from spatial interaction is partially related to reflections on movement and focalization of perception. This is highly evident in Murray's discussion of the three defining qualities of interactive narratives: immersion, agency and transformation. Immersion, is defined entering a parallel state of being "that takes over all of our attention, our whole perceptual apparatus" (Murray 1997, p. 98). In interactive digital media, she notes that immersion inherently requires "learning to swim, to do the things that the new environment makes possible" (ibid, p. 99). Regarding agency, Murray notes that 'true agency' is only experienced when the intentional choices we make through our movement and action allowances are reliably linked to tangible and meaningful impact (p. 128). Transformation relates to the malleability of digital time and space, reminding us that all aspects of movement dynamics, including the player's body, become "more plastic, more inviting of change" (p. 154).

Despite the frequent reference to movement, however, the significance and specificities of its design have rarely been fully broached as an independent category of game narrative study. The player, or interactor, is often treated as a sort of 'visitor', as if entering the gamespace as-is.

Jenkins' central metaphor of "game design as narrative architecture" (2003, p. 120), misses out on an essential difference: game designers do not just design space, but also the dynamics of moving through it.

Movement dynamics are a crucial design element, that determines, alongside geographical design, how interactions in the gamespace would function, what thereby what they should feel like and be interpreted to mean.

While 'real' movement dynamics remain the cognitive default for processing gameplay, games are not the least bit limited to imitating them. Architects design structures to be inhabited and navigated by human bodies, walked through by pairs of legs and perceived through naked eyes. Game designers configure the sort of legs and eyes the player will possess, the avatars – or lack thereof – through which she is embodied. They also design the movement physics that structure change and time in the gamespace, and determine which actions the player could perform through those physics. Designing different movement dynamics for the same digital geography could carry potentially massive implications - like traveling through the neighborhood park should produce an entirely different experience with a jetpack tied to one's back as opposed to a bag of bricks.

Relying on movement even more distinctly, Murray compares the structure of freeform player participation to improvised folk dance such as samba, where dancers invent interpretations of a given repertoire of movements (p. 127). She also notes a key difference: in digital worlds, "it can feel as if the entire dance hall is at our command […] we can be both the dancer and the caller of the dance" (p. 128). This reflection should come with an important caveat – the player may improvise her own dance, and, in some games, control the proceedings of the entire 'dance hall', but the game designer choreographs all potential movements she can perform. Movement dynamics design could be considered, in this scope, as constituting the what Kirsch refers to as the "movement vocabulary […] [which forms] the narrative of the dance" (2013, p. 24).

To further study this factor, enactive focalization could allow us ask how various aspects of movement dynamics design affect instantiated player experience, and what sort of variations in narrative interpretation could result from this? Researching the significance of movement dynamics designed by different games, or utilized differently by different players, could produce valuable theoretical insight for the study of environmental storytelling.

As an initial model of such potential research, I turn to briefly analyze *Journey's* movement design as enactive focalization, and argue for its significance for the game's narrative experience.

Enactive movement design in *Journey*

Jenkins cites Dunniway's claim, that we can draw "parallels between the stages in the Hero's Journey as outlined by Joseph Campbell and the levels of a classic adventure game" (ibid, p. 124). Expanding upon this

idea, he comments that games may progress in narrative stages akin to Campbell's, but do so in a looser sequencing held together by facilitating movement:

Spatial stories are […] pushed forward by the character's movement across the map. […] Resolution often hinges on the player's reaching their final destination […] The organization of the plot becomes a matter of designing the geography of imaginary worlds […] (to) facilitate the protagonist's forward movement towards resolution.

This passage could read like a perfect portrayal of *Journey*: a short adventure game that urges the player to move in a linear path towards a final destination, constructed to tell a story explicitly based on Campbell's narrative formula, and hailed for its excellence at manifesting this story through unique environmental design. *Journey*, I argue, underscores both the validity of Jenkins point and what is missing from it: in lived experience, movement is not only facilitated by the geography of space, but also the other way around. It is not only significant that the game's meticulous design of space can be moved through, but also how it can be moved through.

The spatial geography of *Journey* facilitates the movement, but the movement dynamics simultaneously facilitates the experience of spatial geography. *Journey's* geography and movement dynamics transform in harmonic parallelity throughout the gameplay process. Their transformation cleverly echoes and underscores the minimalistic narrative: in the onset of gameplay, the player has to walk the desert sands, perfectly animated to capture how each step seems to sink and drag a little, slowing the movement and tracing a path of footsteps. After coming across some runes that power up jumping capacity – constantly visualized by the avatar's scarf, which lengthens incrementally – the player gains increased mobility, and jumps can extend into each other to form an experience of gracefully drifting through the landscape in immense freedom. The player eventually enters a dark cave, patrolled by a mysterious monster, where jumps cannot be recharged and must be preserved carefully. Movement is therefore focused on navigating restricted space in efficiency and stealth. The sense of vulnerability and restriction is maximized as the player ascends towards the mountain peak, moving against a gust of wind that hampers jumping and occasionally forces the player backwards. This makes a stage that contains no real ludic challenge feel difficult, ending with the avatar's collapse into the snow. After undergoing a sort of spiritual reincarnation or recovery, the player is magically freed to finish the path by effortless flight that surpasses all material limitations, then lands inside the cleft of the mountain peak and takes the last few steps slowly again, essentially walking herself into a 'fade to white'. In a sort of epilogue, the title sequence depicts a shooting star – that can be interpreted as a reincarnation of the player's

avatar – shining its way through *Journey's* path in reverse order, from the peak to the point of departure.

Journey's narrative is a rather obvious metaphor for walking the path of life – childhood, adulthood, old age, death and a sort of spiritual ascent. Like a religious ritual of passage, it is not the spiritual narrative's plot, but rather the poignant symmetry between its metaphorical meaning the embodied experience of performing the movements it channels, that makes this narrative effective. *Journey* makes zero use of language, and relies entirely on the experience of movement to tell its story. The sense of trajectory and agency negotiated by each shift in movement dynamics powerfully echoes each phase of this abstract story-arc.

If *Journey's* was navigated simply by holding the 'forward' button for two hours, leading the avatar to echo the path of The Hero's Journey by stutter-stepping its way through the breath-taking geography in a constant and steady pace, it would have been an entirely different game. The broad story arc would have stayed exactly the same, but the focalization of experience would have functioned differently, channelling embodiment far less affectively and effectively. This would have robbed *Journey's* narrative, I argue, of the majority of its quality and potency. Simultaneously, barring the abstract narrative framing and its metaphorical symbolism that frames the player's navigation *Journey's* path, the gameplay would have probably been experienced as kinaesthetically entertaining at most, rather than poignant and meaningful.

A final key element of *Journey*, that I can only briefly touch upon, is its multiplayer experience. Players can run into each other while navigating the gamespace, but are intentionally deprived from any sort of chat function. The game thereby prefigures the players, in the absence of affordances for lingual expression, to attempt communication through abstract movements. The three basic actions players can perform – moving, jumping, and interacting – have all been designed to double as meaningful expressive gestures, to facilitate such communication. The interact button, for example, can triggers certain environmental elements, but even when pressed in the absence of such, produces a white circle around the avatar alongside an individual abstract symbol, and plays a single musical note. This can allow the players to enact all sorts of minimalistic visual and musical performances for each other, or together. Thereby, *Journey's* movement design can instantiate fluid and abstract experiential narratives of bonding with another purely through shared travel.

As noted by its IGN review, this "surreal multiplayer" element is among the game's most impressive achievements, partially because it amplifies the broader narrative theme: allowing integration of others (and, potentially, separation) into our paths fits perfectly with *Journey's* narrative of abstract travel as a metaphor for life. The design of

Journey's movement dynamics calibrates gameplay and narrative, or perceptual and conceptual framing, to be enacted, in full parallelity, into a very harmonic dance.

Conclusion – enactive focalization in the 'post-PC dispositif'

In summary, I argue that *Journey's* archetypical narrative is imbued with a strong sense of meaning through enactive focalization by its unique movement dynamics, of the sort that only interactive media can produce. *Journey's* narrative artistry can be considered as evidence for the potential of effective and affective design of game movement dynamics, and as a fitting example for the experiential function of what I termed 'enactive focalization'.

In this paper, it should almost go without saying, however, that the design space for embodied game experience does not end with successes like *Journey* or *Brothers* (Starbreeze Studios, 2013). Regardless of artistic achievement, *Journey's* interface remains confined to a two-dimensional screen and reliant mostly on button-controls. Knoller & Ben-Arie describe how the delimitations of this interface are gradually being breached, with the onset of what they term "the post-PC dispositif" (Knoller & Ben-Arie, 2015 pp. 58-63). Their description of this dispositif is strongly related to many aspects of what I have termed 'enactive focalization':

This "post-PC" dispositif is formed by the convergence and popularization of several interwoven "vectors of change" (p.58) in digital media technology and culture. Among its main characteristics are the "bodily" and "affective" turns (ibid, pp. 58-59), evident in the gradual movement of virtual and augmented reality platforms into mainstream use. Another key characteristic is "prediction by attentive interfaces" that may measure subconscious embodied reactions in order to "model the focus and priorities of their user's attention" (p. 60) as part of "the experience design economy" (pp. 60-61). Finally, the post-PC dispositif fashions a different sort of player (or user), "who is willing to perform gestures and allow these to be captured. It requires a more affective and less cognitive subject, a communicator […] a performing user" (p. 62).

In close affinity to Noë, Knoller & Ben-Arie link embodiment and perceptual attention in the context of modelling a new understanding of experience, which underscores performative interactivity over the once-presumed interiority of cognition. The difference is that in their writing, this modelling is no longer an abstract theory. Rather, it is an overview of ideology being actively anchored and harnessed in the new media technologies. In Murray's vision of the holodeck, digital narratives are tangibly simulated in real, three-dimensional space, and manifest in direct relation to the interactor's body. According to Knoller & Ben-

Arie's overview, many elements of this vision are already present: the holodeck, essentially is already "all around us" (p. 63).

Interactive digital media that measures and channels physical movement, embodied experience and conscious attention is a potent tool, still in the process of being tested and developed. Its enhancement promises thrilling gameplay and captivating narratives, but like other forms of technological advancement, also poses the threat of further surrendering control over human lived experience.

One central issue in this discussion is agency. The enhanced potential for manipulation of experience by digital media in the post-PC dispositif re-asserts an important lesson in game design: the aim should not be to maximize the player's affordances into a sense of omnipotent agency, but rather to seek out a delicate balance of 'agency dynamics' (Harell 2009, p. 49) between freedom and limitation of movement that fits the game's scope and narrative vision (Harell, pp. 46-50; Knoller & Ben-Arie, 2015, p. 62). Omnipotence quickly becomes boring for the player partially because it is, in fact, highly restrictive of narrative design. In *Journey*, for example, a gust of wind flies the avatar back into the realms of the game's intended trajectory whenever the player steers too far off the path. If instead of this delimitation of agency, the designers had aimed to make maximum space available for exploration, the game would have probably been experienced as less of a journey and more of a long stroll.

Multiplayer games complicate the problem of agency dynamics design, particularly when these games, too, become increasingly embodied. In a 2016 editorial pierce for a VR newsletter, Henry Jackson and Jonathan Schenker tell the story of their response to reading in Jordan Belamire's report on the new form of traumatic experience she has gone through: being groped by another user of a multiplayer VR game. To their horror, she was playing the game they have been hard at work on developing, *QuiVr*, then in its beta phase. Their intuitive solution was to design a "personal bubble" mechanic – you could now click a button to make other players seem to fade out when they reach out to touch you, essentially disseminating the danger. Upon reflection, they realized that this solution "was functional, but only addressed the act that caused the damage, not the damage itself. […] When harassment does happen […] we need to also offer the tools to re-empower the player as it happens" (ibid). Their improvement upon this solution can be considered a pioneering and affective use of enactive focalization:

> Activating your Personal Bubble is [now] more like engaging your own superpower. You can still turn it on via the settings, but you can also activate it by what we're calling a "power gesture" – putting your hands together, pulling both triggers, and pulling them apart as if you are creating a force field. No matter how you activate it, the effect is instantaneous and obvious – a ripple

> of force expands from you, dissolving any nearby player from view, at least from your perspective, and giving you a safety zone […]. You have the power to turn this on and off – essentially giving you dramatic and instant control of your own space again. (Jackson and Schenker, 2016)

Game mechanics-wise, this does not change a single thing: all they did was add some aesthetic animation and an alternative control trigger to an already existing mechanism. Enactive-focalization-wise, this makes all the change in the world: the movement dynamics of performing an appropriately designed 'power gesture', causing a ripple of force to literally erase your would-be-assailant from perception, provides an entirely different narrative of affective experience. Sexual harassment can cause trauma because it robs the victim of a sense of agency over their own body. This utilization of enactive focalization should prevent such experience, and possibly even help heal past traumas by performative re-enactment of 'striking back', because it manifests the protective game mechanic as a narrative of self-empowerment, rather than rescue. Navigating the gamespace with the knowledge you can turn to the setting menu for help should feel like being equipped with an emergency phone to the game-police (particularly in a VR game, where the juxtaposed presence of menus in 3D space is extremely non-diegetic), doing the same with internalized mastery of the 'power gesture' should feel like having a personal superpower.

Critical thought on digital utilization of embodiment should be developed alongside the platforms, interfaces and practices that seek to implement it. Jackson & Schencker's innovation exemplifies that a certain understanding of the dynamic connectivities between performance of movement, perceptual experience, and narrative interpretation already exists in the community of practice (in some corners of the post-PC frontier, at least). With the idea of enactive focalization, I hope to have provided some initial steps towards a theoretical framework that would contextualize and reflect upon this inter-relationship, which should become more prevalent and crucial to consider as the "bodily turn" of digital media gradually unfolds.

As in Bal's writing on focalization in traditional narrative media, and as evidenced by the above example, inter-subjective and socio-political issues are easily flooded by reflection on how experience is narrated through movement. My speculative framework for integrating embodied experience, enactive focalization and interactive narrative, should be further grounded in the tangible, culturally-negotiated experience of various bodies, agencies, and identity narratives. This would be the most prudent next step for future research.

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