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Gaming Gender. Virtual Embodiment as a Synaesthetic Experience

Abstract: Cultural and Post-Colonial Studies have long identified ocularcentrism, or the privilege of vision in culture and thought, as one of the prime causes behind the tendency to manipulate and categorize matter, bodies and meanings. This paper examines the power of computer-generated images to produce a kind of digital interaction which upsets gendered visual and listening conventions, such as those traditionally experienced in cinema. The article will take into consideration Valve's Portal (2007), a first person videogame which proposes a 'topological' way of seeing relying on the synaesthetic working of the human sensorium. Images do not simply represent objects and places, but allow for countless configurations of space. The visual effort to confront with images of pure potential brings about an affective intensification of sensory faculties, especially of the senses of touch and hearing. As a consequence, images are endowed with tactile qualities which make possible the absorption and propagation of sound stimuli. In the game, the 'haptic' quality of images works together with acousmatic resonances of female voice in order to recreate a hybrid embodied condition which dissolves the male-female binarism and, in so doing, challenges gendered cultural assumptions and established spectatorial positions.

Keywords: body, performance, affect, female voice, digital interaction, ocularcentrism

If we could rediscover within the exercise of seeing and speaking some of the living references that assign them [their] destiny in a language, perhaps they would teach us how to form our new instruments, and first of all to understand our research, our interrogation, themselves.

(Maurice Merleau-Ponty, *The Visible and the Invisible*)

A new visual paradigm

The focus of this article is *Portal*, a videogame published in 2007 by Valve Corporation, which I suggest provides a digital audio-visual experience capable of disrupting the convention of representation of gendered identities as identified by feminist film scholars such as Laura Mulvey, Kaja Silverman, Teresa De Lauretis, and Barbara Creed.¹ These critical theorists have particularly focused on the fetishistic role assigned to women's bodies in Western cinema. By referring to coeval developments in psychoanalysis and post-colonial studies, such thinkers have shown how the female body has been visually deployed in an economy of male desire where a certain concept of 'womanhood' could emerge and be exported as a cultural universal.²

¹ I list here some of the fundamental texts by these authors which have helped define the theoretical field of inquiry referred in the article: Laura Mulvey, "Visual Pleasure and Narrative Cinema", Screen, 6 (1975); Kaja Silverman, "Dis-embodying the Female Voice", in Patricia Erens, ed., Issues in Feminist Film Criticism (Bloomington: Indiana U. P., 1990 [1984]), and Male Subjectivity at the Margins (New York: Routledge, 1992); Teresa De Lauretis, Alice Doesn't: Feminism, Semiotics, Cinema (Bloomington: Indiana U. P., 1984), and Technologies of Gender: Essays on Theory, Film, and Fiction (Bloomington: Indiana U. P., 1987); Barbara Creed, "Feminist Film Theory: Reading the Text", in Annette Blonkski, Barbara Creed and Freda Freiberg, eds., Don't Shoot Darling! Women's Independent Filmmaking in Australia (Richmond: Greenhouse Publications, 1987), and Phallic Panic: Film, Horror and the Primal Uncanny (Manchester: Manchester U. P., 2005).

² Bill Ashcroft, "Intersecting Marginalities: Post-Colonialism and Feminism", *Kunapipi*, 11.2 (1989), 23.43

³ See Roy Ascott, "Behaviourist Art and the Cybernetic Vision", in Randall Packer and Ken Jordan, eds., Multi Media: From Wagner to Virtual Reality (New York and London: Norton & Company, 2001) 104-120; Friedrich V. Borries, et al., eds., Space Time Play. Computer Games, Architecture, and Urbanism: The Next Level (Basel: Birkhauser Verlag AG, 2007); Marcos Novak, "Eversion: Brushing Against Avatars, Aliens and Angels", in AD Hypersurface II, 69 (1997), and "Liquid Architectures in Cyberspace", in Packer and Jordan, eds., Multi Media: From Wagner to Virtual Reality. unconscious while also embracing the dream of incorporeal transcendence from the physical body.³ Crucial to the present reflection will be the notion, largely based on 'affect theory', that the game manages its visual experience not through the supposed disembodiment of the player but, on the contrary, by heavily investing in the synaesthetic flow of multi-sensory perceptions afforded by the player's embodied condition. The essay asks, on the one hand, how this synaesthetic flow challenges the model of visual pleasure emerging out of the study of cinema and, on the other, whether an anomalous videogame such as *Portal* can be said to challenge the dominant regime of gendered visual power within the domain of digital games.

The critical debate around gendered regimes of visual power is crucially

Videogames have also been described as embodying a patriarchal visual

The critical debate around gendered regimes of visual power is crucially concerned with the representation of the human body. The latter has been described by authors identified with cultural and post-colonial studies as a kind of text bearing the marks of power, a battleground for the formation of subjectivities as mediated by language and representation and enacted through performativity.⁴ As such, the body has also proved to be a fecund site for cultural criticism aiming to expose the complicity of representation with patriarchal structures of power which typically rely on essentialist claims about gender, race and class.⁵

The study of the representation of gender in videogames has mostly continued this scholarly tradition of critique, while also hailing 'disembodiment' as one of the supposedly distinctive features of computer interaction. Disembodiment thus allowed digital media to insert the body into the metamorphic matrix of interconnected networks and virtual worlds. Roaming in the emancipating vagueness and nebulous un-specificity of the electronic domain, cultural meanings would be erased from the flesh, and subjects effectively freed from the normative constraints of scopic regimes, under which bodies are made to bear all the weight and traces of culturally charged prejudices, stereotypes, as well as all related forms of domination or repression. At the same time, others have shared their fears that such a process of 'liberation' may also lead to disastrous consequences. Having the materiality of the body disappear from the field of epistemological enquiry could, in fact, also make cultural categories so unstable, changeable and protean as to put the very notion of culture into a crisis, thus foreclosing agency.

And yet at the same time, the persistence of the topos of disembodiment in digital cultures, and specifically in video and computer gaming, has somehow also produced a shift away from a primary concern with representation and signification towards a focus on affect. As Nick Dyer-Witheford and Greig De Peuter have put it:

[T]he experience of play cannot be comprehended in terms of the "manifest content (narrative, symbolic, emotional or otherwise)" of a game, but that it has

⁴ For a discussion on the cultural processes of bodily inscription see Judith Butler, Bodies that Matter (New York: Reoutledge, 1993); Katherine N. Hayles, How We Became Posthuman: Virtual Bodies in Cybernetics, Literature and Informatics (London: The University of Chicago Press, 1999), and Writing Machines (Cambridge and London: The MIT Press, 2002).

⁵ See, above all, Simone de Beauvoir, The Second Sex, trans. by H. M. Parshley (New York: Knopf, 1993); Abigail Bray and Claire Colebrook, "The Haunted Flesh: Corporeal Feminism and the Politics of (Dis) Embodiment", Signs: Journal of Women in Culture and Society, 24.1 (1998), 35–67; bell hooks, Ain't I A Woman: Black Women and Feminism (Boston: South End Press, 1981); E. Patrick Johnson, Appropriating Blackness: Performance and the Politics of Authenticity (Durham: Duke U. P., 2003), 9; Judith Butler, Gender Trouble: Feminism and the Subversion of Identity (New York: Routledge, 1990); Moira Gatens, Imaginary Bodies: Ethics, Power, and Corporeality (London and New York: Routledge, 1996).

⁶ See, for example, Lisa Nakamura on race and digitalization in Race, Ethnicity, and Identity (London and New York: Routledge, 2002). dimensions of affect – the "feel" or intensity of a game which is synesthetic, ⁷ Nick Dyer-Witheford and Greig de Peuter, Games involving auditory, kinetic and tactile dimensions. ⁷ Inch Dyer-Witheford and Greig de Peuter, Games of Empire: Global Capitalism and Videogames,

At the turn of the 21st century, the 'turn to affect' invested literary theory, cultural studies, media studies, but also science and architecture. As Lisa Blackman has recently argued, this approach emphasises how the ability of the human body to 'make sense' of the world cannot be ascribed to meaning or signification alone.⁸ Bodily affects, on the contrary, are widely regarded as pre-subjective, pre-conscious or non-intentional forces often referring to the autonomous functioning of neural activity.⁹ In looking at a videogame such as *Portal*, which presents us with an anomalous representation of gender embodied through a voice rather than through a visual representation, affect appears as an effective means to discuss embodiment and gender in the domain of digital media.

The affective turn is generally traced back to Eve Kosofsky Sedgwick and Adam Frank's reading of American psychologist Silvan S. Tomkins' interrogation on the primary character of emotions in the mid 1990s. Tomkins had questioned whether emotions mainly operated on a physiological basis or depended on the workings of cognition. The deployment of Tomkins' work was meant to counter the tendency of cultural theorists, to take into account differences among cultures and cultural categories by distancing their critical efforts as far as possible from biology. For many, anti-biologism represented the most secure bulkwark against the risk of essentialism. This anti-biologism was rejected by Sedgwick and Frank as well as by influential theorists of affect such as Patricia T. Clough, Vinciane Despret, and especially Brian Massumi. The anti-biologist prejudice fundamentally ruled out the body and flattened its sensory activities, often reproducing a discursive determinism which paradoxically ended up reinforcing those mechanisms of cultural construction or 'etching' they tried to unveil or criticize.

This article draws on Brian Massumi's theory of affect based on his reading of Gilles Deleuze, who was in his turn inspired by the work of Baruch Spinoza.¹³ In this approach, affects' ability to expand and alter the drive system¹⁴ causes them to be seen as an intangible, yet vital, component connecting body and psyche, biology and culture. Affect thus becomes a necessary means to get to what precedes (which by no means equals priority or superiority) cognition, the domain of emotions as innate processes of the brain built directly into its neuronal networks and their relation to the brain and the autonomic nervous system. Such a view excludes any simplistic, clear-cut materialistic dichotomy "between mind and matter".¹⁵ As Vivian Sobchack suggested, embodiment "necessarily entails both the body 'and' consciousness, objectivity and subjectivity, in an *irreducible ensemble*. Thus we matter and we mean through processes and logics of sense-making that owe as much to our carnal existence as they do to our conscious thought".¹⁶ Cognition and affect will not be regarded here as totally separate systems. On the contrary, affects,

⁷ Nick Dyer-Witheford and Greig de Peuter, Games of Empire: Global Capitalism and Videogames, (Minneapolis and London: University of Minnesota Press, 2009).

⁸ Lisa Blackman, *Immaterial Bodies: Affect, Embodiment, Mediation* (London: Sage Publications Ltd, 2012).

⁹ Brian Massumi, *Parables for the Virtual: Movement, Affect, Sensation* (Durham and London: Duke U. P., 2002).

¹⁰ Eve Kosofsky Sedgwick and Adam Frank, Shame and Its Sisters: A Silvan Tomkins Reader (Durham and London: Duke U. P., 1995).

¹¹ Marianne Liljeström and Susanna Paasonen, eds., Working with Affect in Feminist Readings: Disturbing Differences (London and New York: Routledge, 2010).

¹² Patricia Ticineto Clough and Jean Halley, eds., *The Affective Turn: Theorizing the Social* (Durham and London: Duke U. P., 2007); Vinciane Despret, *Our Emotional Makeup: Ethnopsychology and Selfhood*, trans. by Marjolijn de Jager (New York: Other Press, 2004).

¹³ See Brian Massumi, A Shock to Thought: Expression After Deleuze and Guattari (London and New York: Routledge, 2002); Semblance and Event: Activist Philosophy and the Occurrent Arts (Cambridge, Mass.: The MIT Press, 2011), and the already cited Parables for the Virtual.

¹⁴ The cluster of indicators produced by bodily needs such as sex, hunger, pleasure, preservation from suffering. See Carroll E. Izard, *The Psychology of Emotions* (New York: Plenum Press, 1991).

¹⁵ See Ruth Leys, "Turn to Affect: A Critique", Critical Inquiry, 37.3 (Spring 2011), 434-472.

¹⁶ Vivian Sobchack, Carnal Thoughts: Embodiment and Moving Image Culture (Berkeley, Los Angeles, London: University of California Press, 2004), 4.

¹⁷ Vivian Sobchack, The Address of the Eye: A Phenomenology of Film Experience (Princeton, New Jersey: Princeton U. P., 1992). emotions and sense will be always considered in the way they combine or are imbricated with a series of culturally-charged fantasies, anxieties and fears which, in turn, interfere with our perceived needs, wishes and convictions. As Sobchack's phenomenological investigations demonstrate, 17 even though our bodily "technologies of perception" are a necessary mediation for the constitution of social and historical assemblages, such formations produce cultural and psychological resonances which contribute to qualify the sensory activity that set them up in the first place. In Sobchack's words:

¹⁸ Sobchack, Carnal Thoughts, 5.

... direct experience is not so much direct as it is *transparent*: that is, although phenomenology begins its descriptions with an experience as it seems directly given in what is called the 'natural attitude', it then proceeds to 'unpack' and make explicit the objective and subjective aspects and conditions that structure and qualify that experience as the kind of meaningful experience it is.¹⁸

Dealing with affects, from this perspective, means taking into account those immaterial aspects and non-representational forces involved in cultural communication, thus fostering a new collaboration between the humanities and natural sciences which may prove especially suited to tackle the 'new' ontologies of subject formation emerging with the advent of cybernetics, digital virtual realities, and social networks assemblages. Indeed, the notion of affect is seen by some as particularly apt to describe the way we are 'touched' by a videogame. James Ash, for example, has recently noted that the affective capacity of the players' body is widely exploited and considered during the process of game design and testing:

¹⁹ James Ash, "Architectures of Affect: Anticipating and Manipulating the Event in Processes of Videogame Design and Testing", Environment and Planning D: Society and Space, 28.4 (2010), 653-671. ... videogame designers actively manipulate spatiotemporal aspects of the game environment in an attempt to produce positively affective encounters for users (by which I mean encounters which increase the body's capacity to act and produce associated positive senses of intensity).¹⁹

²⁰ For an in-depth analysis of synaesthesia consult Lynn C. Robertson and Noam Sagiv, eds., *Perspectives* from Cognitive Neuroscience (Oxford: Oxford U. P., 2005). Deleuze and Massumi thus unhinge the sense of vision from its privileged position in Western culture, in order to foreground the synaesthetic working of the human sensorium.²⁰ By synaesthesia we refer to the simultaneous working of all the human senses, even when only one is directly stimulated. Drawing on Gilles Deleuze's affective ontology, Brian Massumi argues that synaesthesia is, in fact, the only and proper mode through which vision operates. To see something also means to synchronically perceive what is invisibly connected to it. In Massumi's words:

Form is full of all sorts of things that it actually isn't – and that actually aren't visible. Basically, it's full of potential. When we see an object's shape we are not seeing around to the other side, but what we are seeing, in a real way, is our *capacity* to see the other side. We're seeing, in the form of the object, the *potential* our body holds to walk around, take another look, extend a hand and touch.²¹

²¹ Massumi, Semblance and Event, 42.

Since human senses "ripple into each other", the act of vision always implies the abstract (that is virtual) perception of all the affects and qualities which sight triggers from the other senses 'as if' they were directly stimulated. To think 'with' or 'through' the sight of an object refers to our ability to potentially relate to it, to range across the nuanced spectrum of its potentials with the support provided by the other senses. Massumi quotes Deleuze to maintain that: "the abstract is lived experience … you can live nothing but the abstract".²²

²² Massumi, *Semblance and Event*, the quotations are respectively on page 76 and 43.

Liquid architectures

The visuality in *Portal* unhinges the sense of sight from its privileged position in order to foreground its synaesthetic dimension.²³ The game begins with the avatar's eyes gradually opening, rendered as gentle light which gradually turns into full radiance. Such images suggest that somebody has just woken up, yet they do not allow to establish exactly whom. Since the world is seen through a first-person perspective, vision is totally identified with the avatar's sight. Only what the avatar is seeing at any one time finds its place on the screen. Vision is embodied: authorial editing, cinematic cuts, or arbitrary jumps do not interfere with what is offered to the player's attention, thus breaking with the cinematic convention. The point of view is human, yet it prevents any stable identification with a particular sex. The absence of an external point of view with respect to the body, as well as of a mirror or any reflective surface, does not provide the subject with an image in which to identify. Moreover, the avatar always stays silent, without uttering a single word with its own voice which, as Roland Barthes noted, contains the 'grain' of the body.²⁴

The dullness of the environment, too, conveys a state of neutrality which considerably adds to the uncertainty. All around, transparent screens and plain tiles enclose the avatar's horizon making up walls, floors and ceilings coloured in milky white and pale greys. Such images follow one another in a series which conveys a sense of monotony, dread, and gloom. The emptiness of space, which does not include details that could allow for some kind of cultural identification, exerts an altogether alienating effect. The avatar's body could even belong to a cyborg, since, as the player learns later in the game, mechanical appendices have previously been attached to the avatar's calves in order to facilitate its movements.²⁵

At the outset of the game, a voice abruptly greets the player reverberating through the air via a sound-amplifying system. It sounds like a woman's, yet the coldness in its tone betrays an unnatural quality. The voice seems to be detached, aloof, or, to use Simon Reynold's expression with regard to the female voice in electronic music, "curiously unbodied". The connotation of the voice suggests that it could have been synthesized by a computer. Besides the avatar's body, the player is also uncertain as to the kind of nature to assign to the voice. Does it

²³ On the synaesthetic dimension of sight see Martin Jay, "The Rise of Hermeneutics and the Crisis of Ocularcentrism", *Poetics Today*, 9.2 (1988), 307-326.

²⁴ Roland Barthes, *Image, Music, Text* (London: Fontana Press, 1977).

²⁵ Please note that these games are usually designed with male players in mind.

²⁶ Simon Reynolds, Rip It Up and Start Again: Post-Punk 1978-1984 (London: Faber and Faber, 2005).

belong to a machine or to a woman in flesh and blood? Doubt persists till the end of the game, and even intensifies during its development.

A further effect of disorientation is produced by the fact that the voice does not address the avatar by name. The latter is interpellated through a generic 'you', while every other personal reference is carefully avoided. The only deduction which can legitimately be made at this stage is that the avatar is taking part, voluntarily or not, in a research project led by Aperture Science, a powerful company which the player gradually learns is committed to the production of hi-tech devices. The avatar's task involves the successful overcoming of what the voice defines "test-chambers". These chambers consist of a series of environments to be traversed with the skillful use a particular tool which bears a likeness to a futuristic gun. The weapon has no offensive power, yet it can 'cut' images in order to fill a gap between two distant surfaces within the tridimensional space. The discontinuity or porousness of digital space makes it possible to establish a visual and physical connection between two different places. The weapon must be employed not as an instrument to achieve domination within a given space, as on space itself. The scope of the kind of visuality experienced in the game is topological rather than imitative. It prompts the player to find paths, establish new relations between the objects and forces present in a vast network of possible ramifications and intersections.²⁷ The represented space is non-Euclidean in the sense that is capable of folding in upon itself, of defying the properties of perspective and its emphasis on the solidity and continuity of its visible elements. This sort of space is close to what Deleuze defined as "any-space-whatever", or "a perfectly singular space, which has merely lost its homogeneity, that is, the principle of its metric relations ... so that the linkages can be made in an infinite number of ways. It is a space of virtual conjunction, grasped as pure locus of the possible". 28 Space, in this sense, can be said to be indeterminate inasmuch as it is made up of the potential of the innumerable connections possible in it. Moreover, only the gun allows the player to 'cut' the image in such a way as to bring the body of his avatar within its own sight and discover that it has the likeness of a woman.

The effort to visually relate to a space capable of an endless number of configurations causes the body to intensify its sensory capacities. Indeed, the decentering of sight activates what Mark Hansen, drawing on Bernard Cache, has called a "longitudinal" comprehension of space.²⁹ Players must see 'through' and 'with' the bare blocks which pave the architectural structures in the environment in search for new connections and hence must take into account the invisible properties which make up the image. The image's distinctive feature here does not point to its truthfulness or mimetic power, but to its ability to synaesthetically empower the faculty of vision through the abstract support of the other senses in order to expand and widen its reach.

Among these, touch and proprioception³⁰ play a primary role. The visual experience in *Portal* is one dominated by contiguity in the sense that it actively

²⁷ For a broad overview on the subject, see the special issue on "Topologies of Power", *Theory Culture and Society*, 29.4-5 (July-September, 2012), with an introduction by Celia Lury, Luciana Parisi and Tiziana Terranova.

²⁸ Gilles Deleuze, *Cinema 1. The Movement-Image* (London: The Athlone Press, 1986), 109-110.

²⁹ Mark Hansen, *Bodies in Code* (New York & London: Routledge, 2006), 185.

³⁰ Proprioception refers to the muscular awareness a body has of the objects surrounding it. For an exhaustive description of the body's proprioceptive capabilities please refer to Massumi, Parables for the Virtual. invests the relationship between representation and bodily experience in order to 'foreground' what is hidden to sight or escapes it. Superficially circumscribing or dividing what is shown on the screen simply on the basis of properties suggested by the eye would not be enough. The images shown are neither merely, nor primarily a representation of solid surfaces and contours, an ensemble of objects and borders in a clearly delimited tridimensional space. Images here can be referred to as 'haptic'31 in that, like skin, they work as flexible and porous surfaces. The space represented by such images is elastic and versatile. It can be compressed or expanded in new configurations and requires the player to proprioceptically perceive the ways in which the image can hold, accommodate or contain those confronting it. Such environment constitutes a post-visual figure, to use an expression employed by Mark Hansen, "a flexible, topological form capable of infinite and seamless modification ... immune to the laws governing the phenomenology of photography, cinema, and video". 32 The impossible architecture hosting the avatar requires a visceral participation, in this sense longitudinal, offering the player images which resist the tendency to 'frame' bodies which is typically associated to pre-digital media. This has significant implications for the ways in which such a game subverts the coded domain of gendered representation with its reliance on the visual representation of the female body in a Euclidean, three-dimensional space.

Portal's images produce what James Ash calls a 'complication' of the way in which the screen is used which occurs "by producing interactive images in which users' bodies become an active component in the framing of what is on or off screen, a capacity that is absent in 'older' technologies of the cinema and the photograph".³³ The primary difference between the images of the game and those generally experienced in cinema thus consists of their ability to articulate new spaces.

Hansen observes that such a condition has an effect similar to what is known as psychasthenia, a disorder in which an organism perceives itself as one and the same with the surrounding space. Lost in the immense domain of possible interconnections in which one feels enveloped or wrapped, the psychasthenic subject is incapable of delimiting boundaries between his or her own body and the world.³⁴

Female voice and acousmatic listening

This condition whereby the invisible forces of sense-making and perception are employed to 'register' an inherently porous visual experience is further rendered as a field of trans-subjective interference, through a powerful investment in the experience of voice-hearing. The disorienting visual effect in *Portal* is amplified by a peculiar use of the voice which not only does dissolve the boundary between self and other, but also between human and non-human. The female voice

³¹ The use of the term 'haptic' in this article is indebted to Deleuze's books on cinema (which, more recently, served as an inspiration to Laura Mark's *The Skin of the Film: Intercultural Cinema, Embodiment, and the Senses* (Durham and London: Duke U. P., 2000). The French philosopher borrowed it from art historian Alöis Riegl, who employed it in contrast to 'tactile'. Whereas the latter refers to the sensations derived from the actual act of touching, the former points to the abstract perceptions related to the sense of touch.

³² Hansen, Bodies in Code, 230.

³³ James Ash, "Emerging Spatialities of the Screen: Video Games and the Reconfiguration of Spatial Awareness", *Environment and Planning A*, 41.9 (2009), 2105-2124.

³⁴ Celeste Olalquiaga, in her book *Megalopolis: Contemporary Cultural Sensibilities* (Minneapolis:
University of Minnesota Press, 1992), associates the disturbance whereby the spacial coordinates of the subject's own body are confused with the surrounding environment to the experience of living in the contemporary technosphere.

commenting the avatar's actions shares the latter's condition in that it does not come from a body which can be directly observed, or which finds plain representation in the images. It seems to come from an unknown elsewhere with respect to the avatar. The source of the sound, the place of origin of discourse, language and meanings, is concealed to sight, in a way 'exceeding' the image.

In The Voice in the Cinema (1980), Mary Ann Doane notes that two kinds of voice can be singled out in cinema: the voice-over and the voice-off. The former refers to a voice which narrates or comments the events from a position of detachment, a gap which will be never filled by the protagonists of the movie.³⁵ It is the case, for example, of a narrator recounting an invented story or past events. The place from which sound impressions are originated is remote, inaccessible to the camera eye, and consequently to the spectator. In challenging the pre-eminence of sight, the transgression of audio-visual synchronization frees the voice from the restrictions and constraints of space, placing it in a privileged position with regard to both the events shown and the spectator. Kaja Silverman observes that this kind of disembodied voice is generally male,³⁶ as it allows the subject to achieve a position which in psychoanalytic terms is the equivalent of the pure phallus: nonlocalizable, all-powerful, all-knowing symbolic authority. The invisible speaker is instinctively credited with transcendent faculties of hearing and sight, and seems consequently capable of knowing everything, an impression which justifies his discursive authority in the mind of the spectator.

As to the voice-off, such vocal expression exceeds the frame of the image (since it still belongs to a character not present on screen), but not diegesis. The speaker occupies a place which can be potentially reached, if not by the characters, at least by the eye of the camera. The separation between voice and image is thus only relative or temporary. In classic cinema, Silverman points out, this second kind of voice generally belongs to a woman.³⁷

In *Portal*, the voice carries out an original synthesis of the two cinematic uses just described. Even though the voice's place of origin is unknown, it is always perceived as part of the diegesis, participating to the events in progress. The voice comments on them as they happen, and appears to be often surprised by the avatar's actions, which it can directly influence by shifting the tiles and panels around the avatar. The voice seems tied to the gigantic building by a peculiar bond which causes the latter to be perceived as a living organism in which the avatar is confined, a huge body or envelope made up of steel and cables.

After finally getting to the place from which it is produced, the player³⁸ eventually finds out that it belongs to a computer, whose appearance reminds that of an embryo in a fetal position, placed in a funnel-like cavity or recess. The player realizes that the voice is the software governing the research complex, and thus that its condition is intimately disembodied. Though the voice is internal to the diegesis, it still manages to preserve a status of fundamental irretrievability within the images, in as much as the avatar is not allowed to associate it to a body. *Portal*

³⁵ Mary Ann Doane, "The Voice in the Cinema: The Articulation of Body and Space", Yale French Studies, 60 (1980), 33-50.

³⁶ Kaja Silverman, The Aconstic Mirror: The Female Voice in Psychoanalysis and Cinema (Bloomington: Indiana U. P., 1988), 48.

³⁷ Silverman, The Acoustic Mirror, 63.

³⁸ The player, while sharing some common features with the 'spectator' generally discussed in Cultural Studies, is nonetheless fundamentally different from the latter for ability, through bodily movements, to actively participate to the chronological development of images. See Bernard Perron and Mark J. P. Wolf, eds., The Video Game Theory Reader 2 (New York and London: Routledge, 2009); Jay Bolter and Richard D.Grusin, eds., Remediation: Understanding New Media (Cambridge, Mass.: The MIT Press, 2000); Lev Manovich, The Language of New Media (Cambridge, Mass.: The MIT Press, 2001); Noah Wardrip-Fruin and Nick Montfort, eds., theNewMediaReader (Cambridge, Mass.: The MIT Press, 2003).

manages thus to merge the two uses of voice generally employed in cinema, voice off and over, because of the way it is perceived as present by the player and yet irreparably absent or unrecoverable.

According to Silverman, when personification is incomplete or unfulfilled, the voice preserves an aura of invulnerability, an almost magical power. For all these reasons, the most appropriate adjective to describe the quality of the voice in Portal appears to be 'acousmatic'. The adjective 'acousmatic' comes from Greek, and has been theorized in the field of cinematographic theory by Pierre Schaeffer³⁹ and Michel Chion⁴⁰ to refer to a sound which is heard but which forecloses any visual perception of the cause or source of its production, thus creating "a mystery of the nature of its source". 41 The emphasis of acousmatic listening is therefore not on meaning, but on its potential effects, the evocative power and the personal fascinations which sound in itself is capable of exerting on the one listening. In particular, acousmatic sounds produce an uncanny state of fear or tension because they are instinctively associated to an entity, or event, which the listener perceives as superior to him- or herself, whose characteristics are almost magical or supernatural. The resulting state of alert makes the body prompt to better grasp "new aspect[s] of the object, towards which our attention is deliberately or unconsciously drawn".42

As such we could argue that the disembodied, female voice of the operating system in *Portal* evokes the maternal voice and the way it is also intimately tied to antenatal and infantile conditions. Such voice has commonly been characterized as a sonorous 'blanket' covering the fetus or the newborn baby.⁴³ In the words of French psychoanalyst Guy Rosolato, for example, the maternal voice is "[a] sonorous envelope ... [that] surrounds, sustains, and cherishes the child".⁴⁴ Rosolato saw this condition as one infusing a reassuring sense of plenitude and bliss. While accepting this view, Michel Chion thought that the female voice also makes the baby feel entrapped in a state unconsciously associated to the condition of imprisonment and powerlessness, both motor and discursive, experienced inside the darkness of the maternal womb. The maternal voice surrounds and confounds the baby, for whom it seemingly comes from anywhere and nowhere in particular.

Feminist scholars such as Kaja Silverman reckon that such uneasy feelings persist in the adult male subject, sparking a process of compensation by which he unconsciously wishes that the female body take the place of the baby. The way in which the patriarchal unconscious finds actualization in arts and social practices would help to explain the tendency to relegate, in the dominant cultural imaginary, the female subject to a status of verbal and physical constraint. In the case of cinema, for example, women are often found in a situation of verbal or motor limitation, or even confined in a safe place waiting to be recovered at some point in the story. Such recovery or rescue means returning the woman's body in the auditory and visual domain of the male protagonist.

³⁹ Pierre Schaeffer, *Traité des objects musicaux*: *Essai intersisciplines* (Paris: Seuil, 1967).

⁴⁰ Michel Chion, Audio-Vision: Sound on Screen (New York: Columbia U. P., 1994).

⁴¹ Chion, Audio-Vision, 72.

⁴² Schaeffer, Traité des objects musicaux, 94.

⁴³ For an in-depth analysis on this subject see Didier Anzieu, *The Skin Ego* (New Haven: Yale U. P., 1989).

⁴⁴ Guy Rosolato, "La voix. Entre corps et langage", Revue Francaise de psychanalyse, 1 (1974), 81.

Allowing a female character to be seen without being heard would subtract her to the deterministic aspirations of male activity. Conversely, to allow a woman to be heard without being seen would be even more dangerous, Silverman maintains, because it would allow her to subvert the regime of gender specularity on which the dominant imaginary relies. The female body would be placed beyond the fields of visual and discursive authority of man, with the added benefit of freeing her voice from the linguistic and expressive obligations that submission requires. That's why, Silverman argues, in mainstream cinema women's voice is generally synchronized to their image. Even when it is heard as voice-off, the separation is only temporary. The female body is always recoverable, eventually coming within male reach, or at least his gaze.

Portal's condition of listening has many points of contact with the one afforded to a fetus. Echoing through mostly empty spaces, the female voice seems to envelop the player from all directions, foreclosing any chance of locating its place of origin. Like the infant or fetus, the player can listen to what the voice tells him, but is unable to answer to what is being said. The female voice is heard in ways that re-awaken and strengthen the ambivalent perceptions, at once positive and negative, felt by the baby in his or her condition of confinement and helplessness which, as has been said, persist in the male subject's unconscious. The quality of the acousmatic voice rouses a vague sense of danger that, in the words of Alfred North Whitehead, affectively and emotionally permeates the surrounding space as a "negative prehension". The philosopher refers to a kind of threat which is learnt negatively, that is not announced or represented, but abstractly and vaguely perceived as a "low-level" background.

Subverting filmic audio-visual conventions, the female voice in *Portal* is not placed outside of the images' frame to eventually reduce the speaker to impotence. The feminine is here given exclusive control. As the player discovers in the sequel to the game, the voice belongs to a woman now deceased. It continues to live after her memory was transferred into a computer. The place of woman, moved into cyberspace, can thus remain inaccessible and untouched by the male, his expectations unfulfilled. Unlike mainstream cinema, in which woman's helpless body undergoes various forms of subjection so that the male protagonist can be gratified with the affirmation of his superiority on her, in *Portal* this expectation is frustrated. The non-localizable voice retains its radical otherness, as well as her superior faculties of seeing and knowing. Framing the immense structure that hosts the avatar as the new cyborg-body gained by the female, her voice rises to the position of symbolic and physical mastery over the child in his early stages of life.

Such a condition of discursive autonomy develops in parallel to another fundamental violation of women's role in dominant visuality: the control of language is also paired with absolute vision. The Aperture Science complex is littered with a large number of cameras that lend their vitreous eyes to the voice governing it, putting in place an efficient surveillance system which nothing can

⁴⁵ As stated before, the male subject alone is being considered in this analysis for expedient reasons.

⁴⁶ Alfred North Whitehead, *Process and Reality* (New York: Free Press, 1978), 41-42.

⁴⁷ Brian Massumi, *Politics of Everyday Fear* (Minneapolis: University of Minnesota Press, 1993),

evade. Every action of the player is constantly monitored, every movement is persistently framed and recorded in a structure which reminds one of Foucault's panopticon.⁴⁸ There is no way the avatar's body can be concealed from the voice's supposed gaze.

Whereas in conventional forms of visuality the male is often placed in a position of privilege, capable of watching without being watched, in *Portal* he is embodied in what appears to be a voiceless female body and is seen without being able to see one who sounds like a woman. The player is embodied in a female body and experiences the confusing condition (if lived by a man) of being watched, spied upon without possibility to return the gaze. This game appears as an exception to the conventions of both cinema and game design by denying male aspiration to invisibility. The entire scopic regime thus seems to force male identification with an unpleasant subjectivity. The female occupies a position of auditory, visual and discursive autonomy, all the while still being able to operate within the boundaries of diegesis.

However, such a reversal of the stereotyped positions between male and female is only apparent. The game interface undermines this ostensible inversion, too, dissolving the binary hierarchy generally observed in cinema.

The acoustic mirror

If what one sees and hears in the game were structured in advance and directed only to the 'outside' (the audience), as in the traditional cinematic vision, *Portal* could be considered an extravagant experiment based on the inversion of gender stereotypes. What this article aims to highlight is the way in which *Portal* employs a strategy of acousmatic listening that thrives on the intensification of seeing produced by longitudinal comprehension, thus creating, in turn, new conditions for watching. As such, it represents a potential of virtual environments and gaming worthy of further exploration.

Firstly, images folding back on themselves allow the player to experience a condition of hybrid observation made possible only by the computer. The spatial links that can be established in *Portal* allow the player to expand the visible horizon on an area of the environment projected backwards, which can end up including even the avatar itself. In this context, what the player looks at is not a reflection of himself on a surface, but his actual body, or rather his digital incarnation moving through the simulated space. This is emblematic of the potential of the electronic gaze, where the player is not a detached observer, but in a relationship of mutual involvement with the image.

In *Portal*, not only does the player never look at his own reflection, but s/he finds her/himself in a radically different condition from Lacan's mirror stage.⁴⁹ The player can watch his/her body from above, from below, from one side or from behind, but rarely does he have the chance to face and look at himself exactly

⁴⁸ The panopticon, a prison archietcturally designed to allow an onlooker placed in a central tower to see all the inmates of the cells without being visible to them, is used by Foucault as a metaphor of a diffused, incessant, unidentifiable system of power and survellaince. See Michel Foucault, *Discipline and Punish: The Birth of the Prison*, trans. by Alan Sheridan (New York: Vintage Books, 1977).

⁴⁹ The expression refers to the recognition, on the part of the infant, of being one with the mother by looking at their simultaneous reflection in a mirror, as well as to the identification with the image reflected as an 'out there' external to the self. See Jacques Lacan, "The Mirror Stage as Formative of the I Function as Revealed in Psychoanalytic Experience", Écrits: A Selection (New York: Norton, 1977).

head on, in his/her own eyes. This kind of watching is not suitable to be conducted from a position of stillness, it almost always happens on the move, while the body acts. Moreover, even when a player intentionally decides to stop and look at her/himself, s/he does so in ways which are completely different from those of dominant visuality.

Each time the player stops to look at his/her avatar, in fact, he can be said to be caught watching her/himself watching her/himself. In other words, he does not



Fig. 1: The player watches himself while getting ready to pass through the 'eye' (the portal which gives its name to the game) cut through the image (the image is taken from the sequel to *Portal*, ©Valve Corporation).

recognize himself in the body represented in the image as if it were a mirrored, and therefore illusory, reflection of her/himself; instead, he experiences a kind of hybrid point of view at once embodied and transcendent. Based neither on identification nor specularity, vision here works at all times as a reversed *mise en abyme*: it is not the image that contains a part of itself, but the gaze (at once both human and digital) swallowing itself up. If, on the one hand, the player can recognize her/himself in an image on the screen, on the other s/he is also one and the same with the digital 'eye' of the virtual camera. In this regard, on more than one occasion the voice calls into question the humanity of the player, suggesting that s/he is behaving like a cold machine, insensitive to the otherness it represents: "The difference between us is that I can feel pain. You do not even care, do you? Did you hear me? I said you do not care. Are you listening?" Of course, the interface will never allow the player to answer that question.

Once such a contact has been established, one based on the encroachment between body and image, the player in this game can no longer be considered the passive receiver of the visual and aural impressions of the game, but the constitutive part of an ongoing event. The audio-visual interaction, in *Portal*, takes the player to such a close proximity to the digital apparatus that the avatar is not so much a character as a vehicle for the perceptions experienced in the game. The images generated by the computer feed on the affects brought about by the proximity between player and machine, in such a way that the ambivalence experienced by the former can be effectively turned also against the latter, as well as the asymmetries it apparently conveys. The condition of hybridity in which the player sees and moves in the game reveals, then, startling implications and has in the voice its most formidable instrument.

Guy Rosolato observes that, like all other sounds, the voice consists of elastic longitudinal waves which propagate through space at very high speed.⁵⁰ At the very moment it is produced, the voice makes a double motion: one of outward expansion and one of return. This represents the origin of the fundamental ambivalence of the human voice, for which projection and introjection coincide. With a few exceptions, during verbal communication it is not possible to speak without listening to what one is saying, the act of speaking makes one a listener as well. The duplicity of the double acoustic motion makes it difficult to locate the voice, to place it precisely within or without the self, inside or outside one's body. The voice is the ubiquitous sound par excellence, it is distinguished by an aural or acoustic undecidability capable of dissolving the boundary between interiority and exteriority. Rosolato makes recourse to the expression 'acoustic mirror' to define this quality of the voice, underlining its potentially destabilizing effects on subjectivity: "The voice ... [has the property] of being at the same time emitted and heard, sent and received, and by the subject himself, as if, in comparison with the look, an acoustic mirror were always in effect".51

While the peculiar communicative context in Portal appears to place the player in a condition of total auditory, ocular, and discursive subordination with respect to the voice, a more in-depth examination shows how interactions assign the player a role much more complex and vital. In Apostrophe, Animation, and Abortion (1986) Barbara Johnson describes the "fetal personhood" as a kind of subjectivity who 'dialogues' with a silent interlocutor who is physically distant, yet affectively present (like a fetus or a lover could be).⁵² In such a discourse, which is the same experienced in *Portal*, the voice is a condition of possibility projected backward. In other words, the fact that the player is not allowed to answer or reply to what is being said actually makes him an invisible interlocutor within the digital apparatus, functioning as an acoustic mirror which reflects sounds back to their source. Even though the audio-visual conditions of the game seem to present the female voice as the only one speaking, as a side effect they also make her the addressee of what she says. The voice is compelled to listen to its own discourse and, thus, seems the object of her own words. For example, she sometimes poses questions to which, due to the silence of the player, she tries to give an answer herself.

50 Rosolato, "La voix", 79.

51 Ibid.

⁵²Barbara Johnson, "Apostrophe, Animation, and Abortion", *Diacritics*, 16.1 (1986), 28–47.

The liminal visual conditions between player and digital apparatus cause the voice to undergo itself the profound ambivalence that she exerts. The voice seems to come from the outside but also from the player, it appears to inhabit the player's chest as well as to fill the emptiness of the test-chambers in which the former moves. The voice resounds not only as if it stemmed from an elsewhere concealed from sight, but also from the player himself, participating to a process of intersubjective creation in which the feminine is retroactively invested of the fantasies which it reawakens in the player. Through the voice, the player is placed on the threshold between enunciation and listening, playing at once the role of speaker and listener. In other words, the voice makes: "the speaker more or differently possible, because she has admitted, in a sense, the importance of speaking for, as, and to, two: but only under the condition, and illusion, that the two is really (in) one".⁵³

⁵³ Laura Berlant, "Cruel Optimism", in Melissa Gregg, Gregory J. Seigworth, eds., *The Affect Theory* Reader (Durham: Duke U. P., 2010), 145.

54 Kaja Silverman, The Acoustic Mirror, 54.

Within psychoanalythic theory, interiority has come to mean discursive dependency, while exteriority refers to its contrary, that is power and authority.⁵⁴ Cultural theory maintains, however, that both associations are the effect of processes of subjectivation, and not conditions which are genetically associated to masculinity and femininity by nature. In *Portal*, images and sounds expose precisely this situation. By affirming the permeability of the line which separates interiority from exteriority, in Portal images and voice are not employed in the creation of places both internal or external within which to establish the dominion of one gendered subjectivity over the other. The digital medium is used to create porous images in which the free passage from one place to another is not only possible, but unavoidable. It is never clear who occupies what position at all possible level of the interaction: visual, auditory, and diegetic. The player is at one time observer and observed, listener and speaker, contemporaneously inside and outside the space of diegesis. The complete reversibility between auditory and visual positions works in a completely different way from the ocularcentric regime and its propension to congeal bodies, practices and spaces.

⁵⁵ Gilles Deleuze and Felix Guattari, A Thousand Plateaus: Capitalism and Schizophrenia (Minneapolis: University of Minnesota Press, 1987), 446. The bond established between voice and image becomes thus an example of the kind of "non-localizable liasons" which Deleuze and Guattari described in A Thousand Plateaus. The proximity between body and image in this game allows the player to experience an embodied condition radically 'in-between' not only among cultural categories, but between human being and machine as well. Indeed, the interactive conditions do not allow to determine who is inside or outside, and the attribution of a gender is made problematic as well. The automatic transferral of signification from image to sound is frustrated, undoing the illusion generally conveyed by cinema that masculine and feminine occupy different positions.

What this kind of gaming experience achieves is a 'broken' identification, whose contrast to gender stereotypes usually seen on film produce absolutely uncanny effects. Both gender categories are deterritorialised, not in consequence of simple reversal of roles, but thanks to the disquieting overlapping, proximity and

coexistence of opposite qualities. The result is a mode of audio-visual fruition especially apt to express and question the tensions active in the process of gendered subjectification. The player is offered an experience of audio-visual instability capable of disrupting the predictability of gender binaries and fixed hierarchies in order to create hybrid conditions of watching and listening whose effect is powerfully - and uncommonly, even for virtual environments disorienting. According to Hansen, "the experience of incommensurability resulting from the failure of identification with the stereotyped ... image sparks a movement beyond habitual feeling networks into an affective confusion".56 The affective confusion/diffusion opens new lines of flight, creates new opportunities of confrontation with the images, territories of reconfiguration for selfhood rooted in the potential to feel and perceive of the body in its entirety. By suspending the subject in a condition of radical liminality and hibridity, in close contact with what is new or uncanny, Portal provides both an impossible space of intersubjective agency and representation, as well as a phenomenologically stimulating interference in the notion of authenticity.

⁵⁶ Hansen, Bodies in Code, 157-158. Hansen is talking here about British artist Keith Piper's multimedia archival synthesis Relocating the Remains (1997).

